CYPRESS TOWN CENTER

Draft Environmental Impact Report

SCH No. 2020099025

City of Cypress

January 2021

Prepared by:

LSA

This page intentionally left blank

DRAFT

ENVIRONMENTAL IMPACT REPORT

CYPRESS TOWN CENTER

CYPRESS, CALIFORNIA

Submitted to:

City of Cypress
5275 Orange Avenue
Cypress, California 90630

Prepared by:

LSA
20 Executive Park, Suite 200
Irvine, California 92614
(949) 553-0666

Project No. CCP1603.08

January 2021

This page intentionally left blank

TABLE OF CONTENTS

APPENDICES

FIGURES AND TABLES

FIGURES

TABLES

LIST OF ACRONYMS AND ABBREVIATIONS

µg/m^3	micrograms per cubic meter
µinch/sec	microinches per second
°F	degrees Fahrenheit
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
ACM	asbestos-containing materials
ACS	American Community Survey
ADA	Americans with Disabilities Act
ADT	average daily trips
AELUP	Airport Environs Land Use Plan
afy	acre-feet per year
AGR	agricultural supply
APN	Assessor's Parcel Number
AQMP	Air Quality Management Plan
AR4	Fourth Assessment Report
ASBS	Areas of Special Biological Significance
AST	Aboveground Storage Tanks
ASTM	American Society for Testing Materials
AUHSD	Anaheim Union High School District
BAAQMD	Bay Area Air Quality Management District
Basin	South Coast Air Basin
Basin Plan	Santa Ana RWQCB's Water Quality Control Plan

bgs	below ground surface
Bio-CO_2	Biologically generated CO_2
BMPs	Best Management Practices
BTU	British Thermal Units
°C	degrees Celsius
CAA	(Federal) Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Occupational Safety and Health Administration
CalARP	California Accidental Release Program
CalEEMod	California Emissions Estimator Model
Cal/EPA	California Environmental Protection Agency
CALGreen Code	California Green Building Standards Code
California Register	California Register of Historical Resources
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CBSC	California Building Standards Commission
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife

CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	California Fire Code
CFR	Code of Federal Regulations
cfs	cubic feet per second
cfs/acre	cubic feet per second per acre
CGS	California Geological Survey
CH_4	methane
CHRIS	California Historical Resources Information System
City	City of Cypress
CMP	Congestion Management Program
CNDDB	California Natural Diversity Data Base
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CO Plan	*2005 South Coast Carbon Monoxide Plan*
COSR	Conservation/Open Space/Recreation
County	County of Orange
COVID-19	Coronavirus
CPD	Cypress Police Department
CPT	cone penetrometer test

CPUC	California Public Utilities Commission
CSD	Cypress School District
CTR	California Toxics Rule
CUP	Conditional Use Permit
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
cy	cubic yard(s)
DAMP	Drainage Area Management Plan
dB	decibel(s)
dBA	A-weighted decibel(s)
DDT	dichlorodiphenyltrichloroethane
DOC	California Department of Conservation
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EDR	Environmental Data Resources, Inc.
EIA	United States Energy Information Administration
EIR	Environmental Impact Report
EJ	environmental justice
EMFAC	EMission FACtor Model
EMS	emergency medical services
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
FAA	Federal Aviation Administration

FAR	floor area ratio; also Federal Aviation Regulations
FCAA	Federal Clean Air Act
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIRM	Federal Insurance Rate Map
ft	foot/feet
FTA	Federal Transit Administration
g	acceleration due to gravity
GCC	global climate change
GHG	greenhouse gas
GIS	Geographic Information System
gpm	gallons per minute
GSAs	Groundwater Sustainability Agencies
GSWC	Golden State Water Company
GWh	gigawatt-hours
GWP	global warming potential
H_2S	hydrogen sulfide
HA	Hydrologic Area(s)
HBW	home-based work
HCD	Department of Housing and Community Development
HCP	Habitat Conservation Plan
HFCs	hydrofluorocarbons
HMBEP	Hazardous Materials Business Emergency Plan

HMD	Hazardous Materials Disclosure
HRI	California State Historic Resources Inventory
HS	Highway System
HSA	Hydrologic Subarea(s)
HU	Hydrologic Unit(s)
HVAC	heating ventilation and air conditioning
I-405	Interstate 405
I-605	Interstate 605
ICU	Intersection Capacity Utilization
inch/sec	inch(es) per second
IND	Industrial service supply
IPaC	(USFWS) Information for Planning and Consultation
IPCC	Intergovernmental Panel on Climate Change
ITE	Institute of Transportation Engineers
JFTB	Joint Forces Training Base
kWh	kilowatt hours
LACM	Natural History Museum of Los Angeles County
lbs/day	pounds per day
LCFS	Low Carbon Fuel Standard
L_{dn}	day-night average noise level
LED	light-emitting diode
L_{eq}	equivalent continuous sound level
LID	Low Impact Development
LIP	Local Implementation Plan

L_{max}	maximum A-weighted sound level
L_{min}	minimum A-weighted sound level
LOS	level of service
LST	Localized Significance Threshold
L_V	vibration velocity in decibels
Ma	million years ago
MBTA	Migratory Bird Treaty Act
MFI	median family income
mg/L	milligrams per liter
mg/m^3	milligrams per cubic meter
mgd	million gallons per day
min/mins	minute/minutes
mL	milliliters
MLD	Most Likely Descendant
MMT	million metric tons
mph	miles per hour
MPO(s)	Metropolitan Planning Organization(s)
MS4	Municipal Separate Storm Sewer System
MT	metric tons
MT CO_2e	metric tons of carbon dioxide equivalent
MT CO_2e/yr/SP	metric tons of carbon dioxide equivalent per year per service population
MT CO_2e/yr	metric tons of carbon dioxide equivalent per year
MTBE	methyl tertiary butyl ether

MUN	municipal and domestic supply
MW	megawatt(s)
MWD	Metropolitan Water District of Southern California
MWDOC	Municipal Water District of Southern California
N_2O	nitrous oxide
N/A	not applicable
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NALMA	North American Land Mammal Age
National Register	National Register of Historic Places
NBio-CO_2	Non-biologically generated CO_2
NCCP/HCP	Natural Communities Conservation Plan/Habitat Conservation Plan
ND	no data
NETR	Nationwide Environmental Title Research
NFIP	National Flood Insurance Program
NHTSA	National Highway Traffic Safety Administration
NO_2	nitrogen dioxide
NOI	Notice of Intent
NOP	Notice of Preparation
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NTU	nephelometric turbidity units
O_3	ozone
OCFA	Orange County Fire Authority

OCFCD	Orange County Flood Control District
OCPL	Orange County Public Libraries
OCSD	Orange County Sanitation District
OCTA	Orange County Transportation Authority
OCTAM	Orange County Transportation Analysis Model
OCWD	Orange County Water District
OCWR	Orange County Waste and Recycling
OFFROAD	Off-Road Emissions Inventory Program Model
OPR	(California) Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration
P.A.C.E.	Positive Actions thru Character
Partner	Partner Engineering and Science, Inc.
Pb	lead
PC	Planned Community
PCB	polychlorinated biphenyls
PCH	Pacific Coast Highway
pCi/L	picocuries per liter
PFCs	perfluorocarbons
PGA	peak ground acceleration
pH	percentage of hydrogen
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
Porter-Cologne Act	Porter-Cologne Water Quality Control Act of 1970

ppb	parts per billion
ppm	parts per million
PPV	peak particle velocity
PRC	California Public Resources Code
PRDs	Permit Registration Documents
PROC	Industrial process supply
proposed project	Cypress Town Center Project
psf	pounds per square foot/feet
PVC	polyvinyl chloride
RCP	Regional Comprehensive Plan
RECs	recognized environmental conditions
RHNA	Regional Housing Needs Assessment
ROCs	reactive organic compounds
ROGs	reactive organic gases
RPS	Renewables Portfolio Standard
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SAFE	Safer Affordable Fuel-Efficient
SAFE Vehicles Rule	*The Safer Affordable Fuel-Efficient* (SAFE) *Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks*
SB	Senate Bill
SCAB	South Coast Air Basin

SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCE	Southern California Edison
SCH	State Clearing House
SCS	Sustainable Communities Strategy
SEMS	Standard Emergency Management System
sf	square foot/feet
SF_6	sulfur hexafluoride
SGMA	Sustainable Groundwater Management Act
SHL	(California) State Historical Landmarks
SHMA	Seismic Hazard Mapping Act
SHPO	State Historic Preservation Officer
SIP	(California) State Implementation Plant
SLF	Sacred Lands File
SMARTS	Stormwater Multiple Application and Report Tracking System
SO_2	sulfur dioxide
SoCalGas	Southern California Gas Company
SO_X	sulfur oxides
SP	service population
SPHI	(California) State Points of Historical Interest
sq mi	square mile(s)
SR-1	State Route 1
SR-55	State Route 55

SR-91	State Route 91
SRA	Source Receptor Area
SVP	Society of Vertebrate Paleontology
S.W.A.T.	special weapons and tactics
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants
TAZ	traffic analysis zone
TCD	Town Center District
TDS	total dissolved solids
TGD	Technical Guidance Document
TMDL	Total Maximum Daily Load
tpd	tons per day
UNFCCC	United Nations Framework Convention on Climate Change
USACE	United States Army Corps of Engineers
USC	United States Code
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground Storage Tank
UWMP	Urban Water Management Plan
v/c	volume-to-capacity
VC	vinyl chloride

VdB	vibration velocity decibels
VMT	vehicle miles traveled
VOCs	volatile organic compounds
vph	vehicles per hour
Vref	reference velocity amplitude
WDID	Waste Discharge Identification Number
West-Comm	West Cities Police Communications Center
Working Group	GHG CEQA Significance Threshold Working Group
WQMP	Water Quality Management Plan
ZE/NZE	zero- and near-zero emissions
ZEVs	zero emission vehicles
ZNE	zero net energy

This page intentionally left blank

1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION

The California Environmental Quality Act (CEQA) requires that local government agencies, before taking action on projects over which they have discretionary approval authority, consider the environmental consequences of such projects. An Environmental Impact Report (EIR) is a document designed to provide to the public and to local and State governmental agency decision-makers an analysis of potential environmental consequences of a project to support informed decision-making.

This EIR has been prepared by the City of Cypress (City) to evaluate environmental impacts associated with the proposed Cypress Town Center Project (proposed project); to discuss alternatives; and to propose mitigation measures that will minimize, offset, or otherwise reduce or avoid the identified potentially significant environmental impacts.

This EIR has been prepared pursuant to the requirements of CEQA and the *State CEQA Guidelines*. The City is the Lead Agency, and as such, has reviewed all submitted drafts, technical studies, and reports for consistency with applicable City regulations and policies and has commissioned the preparation of this EIR to reflect its own independent judgment.

Data for this EIR were obtained from on-site field observations; discussion with affected agencies; review of adopted plans and policies; review of available studies, reports, and data; and specialized environmental assessments prepared for the project (e.g., air quality, noise, and traffic).

The Executive Summary is intended to highlight the major areas of importance in the environmental analysis for the proposed project as required by *State CEQA Guidelines* Section 15123. The Executive Summary includes a brief description of the proposed project, areas of controversy known to the City, including issues raised by agencies and the public, a summary of the significant unavoidable impacts of the proposed project (if any), and a summary of alternatives evaluated in the EIR. This Executive Summary also provides a table summarizing (1) the potential environmental impacts that would occur as a result of project implementation and operation; (2) the level of significance prior to implementation of mitigation measures; (3) regulatory compliance measures that apply; (4) mitigation measures that avoid or reduce any potentially significant impacts of the proposed project, and (5) the level of significance after mitigation measures are implemented.

1.2 SUMMARY OF PROJECT DESCRIPTION

The proposed project would be located on an approximately 7-acre site (project site) at the southeast portion of the existing Los Alamitos Race Course parking lot in the City. In its existing setting, the project site is characterized by a paved parking lot, with existing light poles and various electrical utility boxes and lines. The Los Alamitos Race Course is located north of the project site, and office uses are located northeast and east of the project site. A mixed-use development and various commercial, office, and business park uses are planned for development on the parking lots located west and southwest of the project site.

The project site is within the boundaries of the Cypress Town Center and Commons Specific Plan 2.0 (Specific Plan, Approved June 5, 2018). The proposed project is specifically designated as part of the Town Center District (TCD) within the Specific Plan Area, which includes approximately 17.5 acres of land and permits a mixture of retail and entertainment uses, as well as hotel, residential, and commercial uses. The project site's zoning designation was amended to "PC (Planned Community)" with the approval of the Cypress Town Center and Commons Specific Plan 2.0 ballot measure. Consistent with this zoning designation, the Specific Plan governs the permitted uses and development standards associated with the project site.

The proposed project involves the construction and operation of multi-family residential homes at the project site. The proposed project would consist of 135-dwelling units that would be divided into two types of multi-family units: 56 two-story condominiums and 79 three-story row townhomes. The layout of the proposed project is a paseo-style community with a central large open space area that would include a pool and landscaped areas. Proposed off-site improvements include the extension of Vessels Circle north of the project site and the striping of the existing segment of Vessels Circle to the east. Additionally, the proposed project includes three off-site bioswales and a modular wetland system to collect and treat drainage from the Vessels Circle extension.

Required discretionary actions associated with the project include the following: certification of the EIR; approval of a Vesting Tentative Tract Map required for the subdivision of the project site; approval of the proposed project's Site Plan; approval of a Design Review Permit; and dedication of City right-of-way for the Vessels Circle extensions.

1.3 AREAS OF CONTROVERSY

Pursuant to *State CEQA Guidelines* Section 15123, this EIR acknowledges the areas of controversy and issues to be resolved that are known to the City or were raised during the scoping process. The City held a virtual public scoping meeting on Thursday, October 8, 2020, to present the proposed project and to solicit input from interested parties regarding environmental issues that should be addressed in this EIR. The issues and concerns raised in response to the Notice of Preparation (NOP) or at the scoping meeting included:

- **Traffic:** Inquiry about site access from Winners Circle to the project site and connections to the adjacent Cypress City Center project. Concerns about how traffic patterns will be impacted at the Walker Street/Katella Avenue intersection. Inquiry about adding new bus stops and associated shelters near the project site. Addressing the Orange County Transportation Authority (OCTA) requirement for level of service analysis to monitor Congestion Management Program (CMP) Highway System (HS) performance, per the CMP Traffic Impact Analysis Requirements. Suggestions that the Katella Avenue/Valley View Street intersection be analyzed for any potential traffic impacts consistent with the Orange County CMP. Concerns about adding analysis in regard to the direct or indirect increase in vehicle miles traveled (VMT) on State Highway ramps from the Amazon Facility Project and the proposed project. Suggestions to include discussion regarding the City's multimodal mobility strategies such as Transit and Connectivity. Suggestions that the City promote the use of transit among future residents, visitors, and workers of the residential multi-family community development.

- **Tribal Cultural Resources:** Concerns regarding the Assembly Bill (AB) 52 and Senate Bill (SB) 18 consultation processes and encouragement to consult with local Tribes as much as possible throughout the process.

- **Public Services:** Suggestions to include "Fire Protection" under the Potential Environmental Impact section. Notes that the Applicant/Developer is responsible for fire protection services during construction and operation and is responsible for appropriate equipment and staff training on how to use the equipment.

This is not an exhaustive list of areas of controversy, but rather key issues that were raised during the scoping process. This EIR addresses each of these areas of concern or controversy in detail, examines project-related and cumulative environmental impacts, identifies significant adverse environmental impacts, and proposes mitigation measures and/or alternatives designed to reduce or eliminate potentially significant impacts. Appendix A to this EIR includes the NOP and copies of written comments received in response to the NOP, as well as written comment cards received in response to the public scoping meeting.

1.4 SIGNIFICANT UNAVOIDABLE IMPACTS

Section 15126.2(b) of the *State CEQA Guidelines* requires that an EIR describe significant environmental impacts that cannot be avoided, including those effects that can be mitigated but not reduced to a less than significant level. As described in Chapter 4.0, Existing Environmental Setting, Environmental Analysis, Impacts, and Mitigation Measures, the proposed project would not result in significant and unavoidable impacts.

1.5 ALTERNATIVES

1.5.1 Alternatives Evaluated in this EIR

Public Resources Code (PRC) Section 21100 and *State CEQA Guidelines* Section 15126 require an EIR to identify and discuss a No Project Alternative and a reasonable range of alternatives to the proposed project that would feasibly attain most of the basic objectives of the project and would avoid or substantially lessen any of the significant environmental impacts. The following two alternatives have been determined to represent a reasonable range of alternatives that have the potential to feasibly attain most of the basic objectives of the proposed project but that may avoid or substantially lessen any of the significant impacts of the proposed project. Therefore, the alternatives considered in this EIR include the following:

- **Alternative 1 – No Project Alternative:** CEQA requires analysis of a "No Project" Alternative. The purpose of describing and analyzing a no project alternative is to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. According to *State CEQA Guidelines* Section 15126.6(e)(3)(C), the lead agency should proceed to analyze the impacts of the No Project Alternative by projecting what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. The No Project Alternative assumes that the project site would remain in the same condition as it was at the time the NOP was published and no new development of any kind would occur on

the project site. The project site would remain a paved parking lot that would continue to be used for vehicle parking during events at the nearby Los Alamitos Race Course.

- **Alternative 2 – Reduced Project Alternative:** The Reduced Project Alternative includes a residential development on the project site with the same multi-family residential uses as the proposed project, but with a 30 percent reduction in the number of units. The Reduced Project Alternative includes the construction of 94 residential units at a density of 13.42 dwelling units per acre (du/acre) on the approximately 7-acre project site. The residential units would include a combination of two-story condominium buildings arranged around motor courts and three-story row townhomes, similar to the proposed project. The Reduced Project Alternative would have the same basic building footprint, architecture, open space areas, and vehicular access as the proposed project. The reduced project alternative would include 232 total private community parking spaces, exceeding the minimum number of parking spaces set forth by the Specific Plan.

1.5.2 Identification of the Environmentally Superior Alternative

CEQA requires the identification of an Environmentally Superior Alternative among the project and the alternatives evaluated in an EIR. *State CEQA Guidelines* Section 15126.6(e)(2) provides that, if the No Project/No Build Alternative is the Environmentally Superior Alternative, then the EIR shall also identify an Environmentally Superior Alternative among the other alternatives and the proposed project. The Reduced Project Alternative would have the least impact on the environment because the project site would be developed at a reduced density, thereby reducing the most proposed project environmental impacts compared to the other alternatives (other than the No Build Alternative). The Reduced Project Alternative would result in reduced impacts on the environment because the project site would be developed at a reduced density, thereby reducing most of the proposed project's environmental impacts. The Reduced Project Alternative would also meet all of the project objectives, but to a lesser extent than the proposed project. Accordingly, it is determined that the Reduced Project Alternative is the Environmentally Superior Alternative because it would meet all of the project's objectives and would result in reduced environmental impacts as compared to the proposed project.

1.6 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table 1.A, below, identifies the potential project environmental impacts, proposed mitigation measures, and level of significance after mitigation is incorporated into the project. Environmental topics addressed in this EIR include: Aesthetics, 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, Noise, Population and Housing, Public Services, Recreation, Transportation and Traffic, Tribal Cultural Resources, and Utilities.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
4.1: Aesthetics		
Threshold 4.1.1: Would the project have a substantial adverse effect on a scenic vista? **No Impact**. The City is almost entirely developed and neither the project site nor other properties in the project vicinity provide substantial views of any water bodies, mountains, hilltops, or any other significant visual resources. As such, the City has not designated any scenic corridors or scenic vistas within the City. Therefore, the proposed project would not have any impacts on a scenic vista. No mitigation is required.	No mitigation is required.	No Impact.
Threshold 4.1.2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? **No Impact**. The project site is not located within the vicinity of a State designated scenic highway. Therefore, the proposed project would not damage any scenic resources within a State Scenic Highway. Additionally, the project site consists of a paved parking lot and does not contain any historic buildings. Therefore, there would be no impact to historic resources, and no mitigation is required.	No mitigation is required.	No Impact.
Threshold 4.1.3: In non-urbanized areas, would the project 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.** The proposed project is located in an urbanized area and would conform to all applicable development standards in the Specific Plan and Cypress Zoning Ordinance. At approximately 38 ft in height, the tallest point of the proposed project would be lower than the maximum height	No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
of 75 ft allowed under the Specific Plan. Additionally, the proposed project's building heights are similar to and compatible with the commercial, office, and business park uses that surround the project site. Further, no Specific Plan Amendment, General Plan Amendment, or zone change would be required for project implementation. Therefore, impacts would be less than significant, and no mitigation would be required.		
Threshold 4.1.4: Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? **Less Than Significant Impact.** **Construction.** Construction activities would occur only during daylight hours. Any construction-related illumination during evening and nighttime hours would be used for safety and security purposes only and would occur only for the duration required for the temporary construction process. Light resulting from construction activities would not substantially impact sensitive uses, substantially alter the character of surrounding uses, or interfere with the performance of off-site activities. In addition, construction activities are not anticipated to result in flat, shiny surfaces that would reflect sunlight or cause other natural glare. Therefore, impacts would be less than significant, and no mitigation would be required. **Operation.** New light sources created by the proposed project would include interior and exterior building lighting, security lighting, and parking lot lighting. The proposed lighting sources would be similar to other lighting sources in the project vicinity and would not generate artificial light levels that are out of character with the surrounding area, which is densely developed and characterized by a high degree of human activity and ambient light during the day and night. For these reasons, the proposed project would not create a new source of	No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
substantial light or glare that would adversely affect day or nighttime views in the surrounding urban area. Therefore, impacts would be less than significant, and no mitigation would be required.		
Cumulative Aesthetic Impacts. **Less Than Significant Impact.** The proposed project and all related projects are required to adhere to City and State regulations designed to reduce and/or avoid impacts related to aesthetics. With compliance with these regulations, cumulative impacts related to aesthetics would be less than significant. Therefore, implementation of the proposed project would not result in a significant cumulative impact related to aesthetics.	No mitigation is required.	Less Than Significant Impact.
4.2: Air Quality		
Threshold 4.2.1: Would the project conflict with or obstruct implementation of the applicable air quality plan? **Less Than Significant Impact.** The proposed project would not conflict with or obstruct implementation of the 2016 Air Quality Management Plan (AQMP) because (1) the project's construction and operational emissions would not exceed the South Coast Air Quality Management Plan's (SCAQMD) regional significance thresholds, and (2) the proposed project is consistent with the current General Plan land use designation on the project site and would not exceed the growth assumptions in the AQMP, is consistent with land use planning strategies set forth by SCAQMD, and includes implementation of all feasible air quality mitigation measures. In order to further reduce construction impacts, the project would comply with emission reduction measures required by the SCAQMD, including SCAQMD Rules 402, 403, 445, and 1113. Therefore, impacts related to the conflict with or obstruction of implementation of the applicable air quality plan would be less than significant, and no mitigation is required.	No mitigation is required. Although project-related impacts would be less than significant, the proposed project would be required to adhere to the following Regulatory Compliance Measures, which would further reduce emissions. **Regulatory Compliance Measure AQ-1:** **SCAQMD Rule 403.** During clearing, grading, earth moving, or excavation operations, excessive fugitive dust emissions shall be controlled by regular watering or other dust preventative measures by using the following procedures, in compliance with South Coast Air Quality Management District (SCAQMD) Rule 403 during construction. ● All material excavated or graded shall be sufficiently watered to prevent excessive amounts of dust. Watering shall occur at least twice daily with complete coverage, preferably in the late morning and after work is done for the day.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
	● All material transported on-site or off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust. ● The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized so as to prevent excessive amounts of dust. ● These control techniques shall be indicated in project specifications. Compliance with this measure shall be subject to periodic site inspections by the City of Cypress (City). ● Visible dust beyond the property line emanating from the project shall be prevented to the maximum extent feasible. **Regulatory Compliance Measure AQ-2:** All trucks that are to haul excavated or graded material shall comply with State Vehicle Code Section 23114, with special attention to Sections 23114(b)(F), (e)(2) and (e)(4) as amended, regarding the prevention of such material spilling onto public streets and roads. **Regulatory Compliance Measure AQ-3:** Prior to approval of the project plans and specifications, the Planning Division shall confirm that the construction bid packages specify: ● Contractors shall use high-pressure-low-volume paint applicators with a minimum transfer efficiency of at least 50 percent; ● Coatings and solvents that will be utilized have a volatile organic compound content lower than	

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
	required under South Coast Air Quality Management District Rule 1113; and ● To the extent feasible, construction/building materials shall be composed of pre-painted materials. **Regulatory Compliance Measure AQ-4:** The project shall comply with SCAQMD Rule 402. Rule 402 prohibits the discharge of air contaminants or other material from any type of operations, which can cause nuisance or annoyance to any considerable number of people or to the public or which endangers the comfort or repose of any such persons, or the public. **Regulatory Compliance Measure AQ-5:** **California Code of Regulations (CCR), Title 24.** Prior to the issuance of building permits, the City of Cypress (City) Chief Building Official, or designee, shall confirm that the project design complies with the 2019 Building Energy Efficiency Standards (CCR Title 24) energy conservation and green building standards, as well as those listed in Part 11 (California Green Building Standards Code [CALGreen Code]). The City's Chief Building Official shall confirm that the project complies with the mandatory measures listed in the CALGreen Code for residential building construction.	
Threshold 4.2.2: Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard? **Less Than Significant Impact.** Construction and operation of the	No mitigation is required. Refer to Regulatory Compliance Measures AQ-1 through AQ-5, above.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
proposed project would not exceed the significance thresholds of criteria pollutants for which the project region is nonattainment under the CAAQS or NAAQS. According to the SCAQMD, projects that do not exceed the significance thresholds are generally not considered to result in cumulatively considerable air quality impacts. Therefore, based on the fact that the emissions during construction and operation of proposed project would not exceed any of the air quality significance thresholds for any criteria pollutants, the proposed project would not have a cumulatively considerable impact. In order to further reduce construction impacts, the project would comply with emission reduction measures required by the SCAQMD, including SCAQMD Rules 402, 403, 445, and 1113. Therefore, impacts related to the cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable NAAQS or CAAQS would be less than significant.		
Threshold 4.2.3: Would the project expose sensitive receptors to substantial pollutant concentrations? **Less Than Significant Impact.** Construction and operation emissions associated with the proposed project would not exceed the localized significance thresholds (LSTs) established by SCAQMD. In order to further reduce construction impacts, the project would comply with emission reduction measures required by the SCAQMD, including SCAQMD Rule 403. Because the project would not exceed the LSTs with compliance with regulatory requirements, impacts related to exposure of sensitive receptors to substantial pollutant concentrations would be less than significant.	No mitigation is required. Refer to Regulatory Compliance Measures AQ-1 through AQ-5, above.	Less Than Significant Impact.
Threshold 4.2.4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? **Less Than Significant Impact.**	No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Construction. Heavy-duty equipment on the project site during construction would emit odors; however, this would be temporary in nature and would cease to occur after construction is completed. No other sources of objectionable odors would occur during construction of the proposed project, and no mitigation measures are required. **Operation.** Potential airborne odors could result from cooking activities associated with trash receptacles. These odors would be confined to the immediate vicinity of the project and minimized by SCAQMD odor regulations and lids on trash receptacles. The proposed uses are not anticipated to emit any other types of objectionable odors. Therefore, operation of the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people, and this impact would be less than significant. No mitigation is required.		
Cumulative Air Quality Impacts. **Less Than Significant Impact.** The cumulative impact area for air quality related to the proposed project is the South Coast Air Basin. Air pollution is inherently a cumulative impact measured across an air basin. The incremental effects of projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively considerable per SCAQMD guidelines. The proposed project's construction- and operation-related regional daily emissions are less than the SCAQMD significance thresholds for all criteria pollutants. In addition, adherence to SCAQMD rules and regulations on a project-by-project basis would substantially reduce potential impacts associated with the related projects and basin-wide air pollutant emissions. Therefore, the proposed project would not have a cumulatively considerable increase in emissions, and the proposed project's cumulative air quality impacts would be less than significant.	No mitigation is required. Refer to Regulatory Compliance Measures AQ-1 through AQ-5, above.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
4.3: Biological Resources		
Threshold 4.3.1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service? **No Impact.** The project site is currently characterized by a paved asphalt surface parking lot. In its existing condition, the project site contains only a small amount of ornamental vegetation along the existing segment of Vessels Circle to the east of the project site and along the northern edge of the project site adjacent to Los Alamitos Race Course parking lot. The developed and disturbed conditions of the project site are generally not suitable to support special-status plant or animal species, and no special-status species have been documented as occurring on the site or in the immediate vicinity. **Special-Status Habitat/Vegetation.** The United States Fish and Wildlife Service (USFWS) Critical Habitat for Threatened & Endangered Species map does not identify any locations of critical habitat within the project site. The closest known critical habitat is the Bolsa Chica Ecological Reserve, approximately 6.8 miles south of the project site. According to the California Natural Diversity Database (CNDDB), no sensitive plant species have been documented on the project site or immediately surrounding area. The Orange County Transportation Authority's (OCTA) 2016 Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP), which was adopted for the purpose of permitting freeway capital improvement projects proposed by OCTA and OCTA's habitat preserve, restoration, and monitoring activities, includes a Plan Area that covers the entirety of Orange County, including Cypress. The City is not a party to the	No mitigation is required.	No Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
OCTA NCCP/HCP, and development activity within the City is not subject to the provisions of the OCTA NCCP/HCP. Therefore, the OCTA NCCP/HCP does not apply to the proposed project. No special-status species are anticipated to be directly affected by the project due to the lack of suitable habitat on the project site. Therefore, no impacts to sensitive or special-status species would result from implementation of the proposed project, and no mitigation is required.		
Threshold 4.3.2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service? **No Impact.** The project site is highly disturbed and developed with an asphalt-paved parking lot and does not support any special-status or sensitive riparian habitat as identified in regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or USFWS. Therefore, no impacts to riparian habitat or other sensitive natural communities identified in a local or regional plan would result from project implementation, and no mitigation is required.	No mitigation is required.	No Impact.
Threshold 4.3.3: Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? **Less Than Significant Impact.** According to the National Wetlands Inventory managed by USFWS, the project site does not contain federally protected wetlands. The project site is located entirely outside of streambeds, banks, and riparian habitat. No potential waters of the U.S. or CDFW jurisdictional areas are located on the project site. Although construction activities have the potential to result in temporary indirect effects to water quality including a potential	No mitigation is required. Although project-related impacts would be less than significant, the proposed project would be required to adhere to the standards in Regulatory Compliance Measure HYD-1, which is provided below in Section 4.9, Hydrology and Water Quality.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
increase in erosion and sediment transport into adjacent or downstream aquatic areas and the contamination of waters from construction equipment, these potential indirect effects to hydrology and water quality would be avoided or substantially minimized through the implementation of best management practices (BMPs) and a water quality management plan as discussed in Section 4.9 Hydrology and Water Quality. Specifically, adherence to Regulatory Compliance Measure HYD-1 during construction would ensure that erosion-related impacts during construction would be less than significant by requiring the implementation of construction site BMPs to avoid erosion and sedimentation impacts to nearby creeks and water quality. As such, impacts on state or federally protected wetlands would be less than significant, and no mitigation is required.		
Threshold 4.3.4: Would the project 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.** The project site is strictly upland in nature and there are no aquatic resources within the project site to support native resident or migratory fish. Native wildlife habitat is largely absent on the project site. Furthermore, the lack of ground cover and suitable foraging habitat make the site undesirable for wildlife nursery sites (i.e., bat maternity roosts, colonial bird nesting sites/foraging grounds, and steelhead streams). The proposed project would avoid impacts on nesting resident and/or migratory birds either by avoiding vegetation removal during the avian nesting season (February 1 through August 31) or by implementing Regulatory Compliance Measure BIO-1. The proposed project has the potential to impact active migratory bird nests if and to the extent that any of the trees on the project site are removed during the avian nesting season	No mitigation required**.** Although project-related impacts would be less than significant, incorporation of the following Regulatory Compliance Measure would be required to reduce biological resource impacts. **Regulatory Compliance Measure BIO-1:** **Nesting Bird Survey and Avoidance.** If vegetation removal, construction, or grading activities are planned to occur within the active nesting bird season (February 1 through August 31), the City of Cypress, or designee, shall confirm that the Applicant/Developer has retained a qualified biologist who shall conduct a preconstruction nesting bird survey no more than 3 days prior to the start of such activities. The nesting bird survey shall include the work area and areas adjacent to the site (within 500 feet, as feasible) that could potentially be affected by project-related activities	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
and they contain nests. Regulatory Compliance Measure BIO-1, below, would address any impacts to nesting resident and/or migratory birds should it be necessary to conduct vegetation removal during the nesting season and nests are present. With implementation of Regulatory Compliance Measure BIO-1, the proposed project's potential impacts on nesting migratory birds would be less than significant. The proposed project would avoid impacts on the nests of raptors (which are migratory birds) if the existing trees in the ornamental vegetation area are removed outside the raptor nesting season (February 1 through June 30) and they contain raptor nests. The proposed project has the potential to impact active raptor nests if and to the extent that (1) those ornamental trees are removed during the raptor nesting season, and (2) special-status or common species of raptors establish nests in the future in any of those ornamental trees prior to their removal. Regulatory Compliance Measure BIO-1, below, would also address any impact to nesting raptors should it be necessary to conduct vegetation removal during the nesting season and raptors are present. With implementation of Regulatory Compliance Measure BIO-1, the proposed project would result in less than significant impacts with respect to disrupting a wildlife corridor or in any way disrupting the movement of native wildlife.	such as noise, vibration, increased human activity, and dust, etc. For any active nest(s) identified, the qualified biologist shall establish an appropriate buffer zone around the active nest(s). The appropriate buffer shall be determined by the qualified biologist based on species, location, and the nature of the proposed activities. Project activities shall be avoided within the buffer zone until the nest is deemed no longer active, as determined by the qualified biologist.	

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Threshold 4.3.5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? **Less Than Significant Impact.** The Landmark Tree Ordinance in the City's Municipal Code protects designated landmark trees, which are specifically identified in the City's Inventory of Landmark Trees (July 1996). As shown in this inventory, there are no landmark trees on the project site. The removal of any on-site trees or vegetation would not conflict with the City's Landmark Tree Ordinance. Per Article IV of the Municipal Code, Street Trees, any tree within the public right-of-way belongs to the City of Cypress. Any work to street trees conducted as part of the proposed project would be done in accordance with the City Council's adopted Parkway Tree Policy.	No mitigation is required.	Less Than Significant Impact.
Threshold 4.3.6: Would the project 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**. There is no adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other regional habitat conservation plan applicable to the City. As discussed above in the response to Threshold 4.3.1, the OCTA NCCP/HCP includes a Plan Area that covers the entirety of Orange County, including Cypress. The City is not a party to the OCTA NCCP/HCP, and development activity within the City is not subject to the provisions of the OCTA NCCP/HCP. Therefore, the OCTA NCCP/HCP does not apply to the proposed project, and the proposed project would not conflict with any local, regional, or State HCP or NCCP. The proposed project would not result in impacts related to conflict with any provisions of an HCP or NCCP, and no mitigation is required.	No mitigation is required.	No Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Cumulative Biological Resources Impacts. **Less Than Significant Impact.** The project site is heavily disturbed, with existing paving and light poles. Because the project site is located within the City of Cypress, the cumulative area for biological impacts is the City. The proposed project would have no impacts to federal and State listed species and waters of the United States or wetlands and would have less than significant effects on migratory birds and local tree policies. As the proposed project's impacts to biological resources would be limited, its contribution to cumulative biological impacts in consideration of the City of Cypress projects identified in Table 4.A, in Chapter 4.0, Existing Setting, Environmental Analysis, Impacts, and Mitigation Measures, would be considered less than significant. The project site is located within the OCTA NCCP/HCP that covers the entirety of Orange County, including the City of Cypress. The City is not a party to the OCTA NCCP/HCP, and development activity within the City is not subject to the provisions of the OCTA NCCP/HCP. Therefore, the OCTA NCCP/HCP does not apply to the proposed project. Additionally, the project site is not located within a designated habitat reserve and, therefore, the proposed project would not contribute to the loss of natural habitat in the City. The development of the proposed project would not result in the removal of any sensitive habitat species identified in the OCTA NCCP/HCP. Therefore, the proposed project would not contribute to the cumulative loss of biological resources, and impacts on biological resources would be less than cumulatively significant.	No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
4.4: Cultural Resources		
Threshold 4.4.1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? **No Impact.** According to the City of Cypress General Plan, there are no known archaeological resources located in Cypress. Further, the SCCIC record search results identified no previously recorded cultural resources on or in soils on the project site. As such, there are no historical resources as defined in Section 15064.5 of the *State CEQA Guidelines* located within the project site. The proposed project would not cause a substantial adverse change in the significance of a historical resource, and no mitigation is required.	No mitigation is required.	No Impact.
Threshold 4.4.2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? **Less Than Significant with Mitigation Incorporated.** The SCCIC record search included the project site and the areas within 0.25 mile of the project site. No archaeological resources have been previously recorded within the project site and the majority of project grading/over-excavation would occur in Artificial Fill. However, project trenching activities would extend in to sediments that date to human occupation of the area. As such, there is a potential to encounter subsurface archaeological resources from either the precontact or historic periods. With implementation of Mitigation Measure 4.4-1, which requires monitoring by a qualified archaeologist and includes procedures for recovering any significant or unique archaeological resource encountered during grading and excavation activities and for preparation of a report documenting any cultural resources that are recovered at the project site, impacts to previously unrecorded cultural resources would be less than significant.	**Mitigation Measure 4.4-1:** **Cultural Resources Monitoring and Accidental Discovery.** Prior to the issuance of grading permits, and in adherence to the recommendations of the *Record Search Results for the Cypress Town Center Project in Cypress, Orange County, California* (LSA Project No. CCP1603.08) (November 2020), the Applicant/Developer shall retain a qualified archaeological monitor with approval of the City of Cypress (City) Community Development Director or designee. A monitoring plan shall be prepared by the archaeologist and implemented upon approval by the City. The monitor shall be present full-time during trenching activities for utilities only, not during over excavation or building footing excavations or during demolition or clearing/ grubbing of existing landscape. If cultural materials are discovered during grading or excavation, the construction contractor shall divert all earthmoving activity within and around	Less Than Significant with Mitigation Incorporated.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
	the immediate discovery area until a qualified archaeologist can assess the nature and significance of the find. Project personnel shall not collect or move any archaeological materials or human remains and associated materials. To the extent feasible, project activities shall avoid these deposits. Where avoidance is not feasible, the archaeological deposits shall be evaluated for their eligibility for listing on the California Register of Historical Resources. If the deposits are not eligible, avoidance is not necessary. If the deposits are eligible, adverse effects on the deposits must be avoided, or such effects must be mitigated. Mitigation can include, but is not necessarily limited to: excavation of the deposit in accordance with a data recovery plan (see California Code of Regulations [CCR] Title 4(3) Section 5126.4(b)(3)(C)) and standard archaeological field methods and procedures; laboratory and technical analyses of recovered archaeological materials; production of a report detailing the methods, findings, and significance of the archaeological site and associated materials; curation of archaeological materials at an appropriate facility for future research and/or display; an interpretive display of recovered archaeological materials at a local school, museum, or library; and public lectures at local schools and/or historical societies on the findings and significance of the site and recovered archaeological materials. The City Community Development Director, or designee, shall be responsible for reviewing any reports produced by the archaeologist to determine the appropriateness and adequacy of the findings and	

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
	recommendations.	
Threshold 4.4.3: Would the project disturb any human remains, including those interred outside of dedicated cemeteries? **Less Than Significant Impact.** Although no human remains are known to be on the project site or are anticipated to be discovered during project construction, there is always a possibility of encountering unanticipated cultural resources, including human remains. Disturbing human remains could violate the State's Health and Safety Code as well as destroy the resource. Adherence to regulatory standards included in Regulatory Compliance Measure CUL-1 would reduce the impact of the proposed project on human remains to less than significant. No mitigation is required.	**Regulatory Compliance Measure CUL-1:** **Human Remains.** If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County of Orange (County) Coroner has made a determination of origin and disposition pursuant to State Public Resources Code (PRC) Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American, the County Coroner would notify the Native American Heritage Commission (NAHC), which would determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The MLD recommendations may include scientific removal and nondestructive analysis of human remains and items associated with Native American burials, preservation of Native American human remains and associated items in place, relinquishment of Native American human remains and associated items to the descendants for treatment, or any other culturally appropriate treatment.	Less Than Significant Impact.
Cumulative Cultural Resources Impacts. **Less Than Significant with Mitigation Incorporated.** Potential impacts of the proposed project to unknown cultural resources, when combined with the impacts of past, present, and reasonably foreseeable projects in the City of Cypress, could	Refer to Regulatory Compliance Measure CUL-1 and Mitigation Measure 4.4-1, provided above.	Less Than Significant with Mitigation Incorporated.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
contribute to a cumulatively significant impact due to the overall loss of historical and archaeological artifacts unique to the region. Each development proposal received by the City is required to comply with the requirements of CEQA, including an environmental review, if applicable. If there were any potential for significant impacts to archaeological resources as a result of present or reasonably foreseeable projects in Cypress, an investigation would be required to determine the nature and extent of the resources and identify appropriate mitigation measures. When archaeological resources are assessed and/or protected as they are discovered, impacts to these resources are less than significant. As such, implementation of Regulatory Compliance Measure CUL-1 and Mitigation Measure 4.4-1 would ensure that the proposed project, together with cumulative projects, would not result in a significant cumulative impact to unique archaeological and historical resources.		
4.5: Energy		
Threshold 4.5.1: Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? **Less Than Significant Impact.** **Construction.** The project would consume approximately 117,936 gallons of diesel fuel and approximately 70,533 gallons of gasoline during construction, which would increase the annual construction generated fuel use in Orange County by approximately 0.07 percent for diesel fuel usage and less than 0.01 percent for gasoline fuel usage. As such, project construction would have a negligible effect on local and regional energy supplies. Furthermore, impacts related to energy use during construction would be temporary and relatively small in comparison to Orange County's overall use of the State's	No mitigation is required. Although project-related impacts would be less than significant, the proposed project would be required to adhere to the standards in Regulatory Compliance Measure AQ-5, which is provided above in Section 4.2, Air Quality.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
available energy resources. No unusual project characteristics would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or the State. Therefore, construction of the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources, and impacts would be less than significant. **Operation.** Energy use consumed by operation of the proposed project would be associated with natural gas use, electricity consumption, and fuel used for vehicle trips associated with the project. Operation of the proposed project would increase the annual consumption of electricity and natural gas in Orange County by less than 0.01 percent and would increase the annual gasoline and diesel fuel consumption in Orange County by 0.01 percent. With implementation of Regulatory Compliance Measure AQ-5, requiring compliance with Title 24 standards, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy and would incorporate renewable energy or energy efficiency measures into building design, equipment use, and transportation. Therefore, impacts related to consumption of energy resources during operation would be less than significant.		
Threshold 4.5.2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency? **Less Than Significant Impact.** Energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the overall use in the County. In addition, energy usage associated with operation of the proposed project would be relatively small in comparison to the overall use in Orange County, and the State's available energy resources. Therefore, energy impacts at the regional level would be negligible. Because California's energy	No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
conservation planning actions are conducted at a regional level, and because the proposed project's total impact on regional energy supplies would be minor, the proposed project would not conflict with or obstruct California's energy conservation plans as described in the California Energy Commission's (CEC) Integrated Energy Policy Report. Additionally, as demonstrated above under Threshold 4.5.1, the proposed project would not result in the inefficient, wasteful, and unnecessary consumption of energy. Potential impacts related to conflict with or obstruction of a State or local plan for renewable energy or energy efficiency would be less than significant, and no mitigation is required.		
Cumulative Energy Resources Impacts. **Less Than Significant Impact.** The proposed project would result in an increased services demand in electricity and natural gas. Although the proposed project would result in a net increase in electricity usage, this increase would not require SCE to expand or construct infrastructure that could cause substantial environmental impacts. Additionally, it is anticipated that SoCalGas would be able to meet the natural gas demand of the proposed project without additional facilities. Furthermore, the proposed project's percent of cumulative electricity and natural gas consumption would be negligible, and there are sufficient planned natural gas and electricity supplies in the region for the estimated increases in energy demands. Transportation related energy use would also increase as part of the proposed project. However, this transportation energy use would not represent a major amount of energy use when compared to the amount of existing development and to the total number of vehicle trips and vehicle miles traveled (VMT) throughout Orange County and the region. Further, compliance with Regulatory Compliance Measure AQ-5 would ensure that the proposed project does not result in an inefficient, wasteful, and unnecessary consumption of energy. Therefore, the	No mitigation is required. Although project-related impacts would be less than significant, the proposed project would be required to adhere to the standards in Regulatory Compliance Measure AQ-5, which is provided above in Section 4.2, Air Quality.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
proposed project's contribution to impacts related to the inefficient, wasteful, and unnecessary consumption of energy would not be cumulatively considerable, and no mitigation is required.		
4.6: Geology and Soils		
Threshold 4.6.1(i): Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: 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 evidences of known fault? (Refer to Division of Mines and Geology Special Publication 42) **No Impact.** According to the California Department of Conservation 2010 Fault Activity Map, there are no known earthquake faults that run through the project site, nor is there any other evidence of a known fault that runs through the project site. Therefore, although the proposed project is in a seismically active region, it would not result in any impact related to the rupture of a known earthquake fault, and there would be no impact.	No mitigation is required.	No Impact.
Threshold 4.6.1(ii): Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Strong seismic ground shaking? **Less Than Significant with Mitigation Incorporated.** As with all of Southern California, the project site is subject to strong ground motion resulting from earthquakes on nearby faults. There are several faults in the vicinity of the project site that are capable of producing strong ground motion, including the Newport-Inglewood Fault, the Puente Hills Blind Thrust Fault, the San Joaquin Hills Thrust Fault, the Palos Verdes Fault, and the Whittier Fault.	**Regulatory Compliance Measure GEO-1:** **California Building Code Compliance Seismic Standards.** All structures shall be designed in accordance with the seismic parameters presented in the Geotechnical Assessment prepared for this project (GeoTek, Inc., 2019) and applicable sections of the most current California Building Code (CBC). Prior to the issuance of building permits for planned structures, the Project Soils Engineer and the City of Cypress Chief Building Official, or designee, shall review building plans to verify that the structural design conforms to the requirements	Less than Significant with Mitigation Incorporated.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Mitigation Measure 4.6-1 requires the project Applicant/ Developer to comply with the recommendations of the Geotechnical Assessment, which stipulates appropriate seismic design provisions that shall be implemented with project design and construction. The proposed project would adhere to the adopted City's Building Code, including the seismic standards there in, consistent with Regulatory Compliance Measure GEO-1. With the implementation of Mitigation Measure 4.6-1 and adherence to the regulatory standards described in Regulatory Compliance Measure GEO-1, potential project impacts related to seismic ground shaking would be reduced to a less than significant level.	of the Geotechnical Assessment and the City of Cypress Municipal Code. **Mitigation Measure 4.6-1:** **Compliance with the Recommendations in the Project Geotechnical Assessment.** The Applicant/Developer's Construction Contractor shall implement the recommendations of the Geotechnical Evaluation for Proposed Multi-Family Residential Development South of Vessels Circle and West or Walker Street, City of Cypress, Orange County, California (Geotechnical Assessment) (GeoTek, Inc. [GeoTek], August 12, 2019) Geotechnical Assessment) prepared for the proposed project, as applicable to the satisfaction of the City of Cypress' (City) Chief Building Official or designee, including, but not limited to: 1. To address potential liquefaction potential and seismically induced settlement, at a minimum, the upper 4 ft of soil shall be completely removed within the structural grading limits. The depth of removals should be extended, where needed, to eliminate any undocumented fill. Additional removals may be recommended if unsuitable materials are exposed. As a minimum, removals shall extend down and away from foundation elements at a 1:1 (h:v) projection to the recommended removal depth, or a minimum of 5 ft laterally. 2. A minimum 24 inches of engineered fill shall be provided below the bottom of the proposed foundations. The Project Geotechnical Consultant and the City of Cypress Director of	

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
	Public Works/City Engineer, or designee, shall observe the bottom of all excavations. A minimum of 12 inches of engineered fill should be provided below asphaltic concrete pavement and Portland cement concrete hardscape areas. The horizontal extent of removals should extend at least 2 ft beyond the edge. 3. The bottom of removals may encounter very moist/soft soils that may require stabilization. If required, to address shallow groundwater and wet soil, some type of ground stabilization, such as cement treatment or aggregate or a combination of both shall be used. Geofabric or geogrid is recommended in combination with aggregate to reduce the required depth of treatment, amount of aggregate and time required to backfill the excavations. 4. Concrete slabs shall be used for all foundations and slabs on grade and shall a minimum bearing capacity of 2,000 pounds per square foot (psf). 5. A moisture and vapor retarding system shall be placed below slabs-on-grade where moisture migration through the slab is undesirable. The system shall be designed per 2016 California Green Building Standards Code (CALGreen) Section 4.505.2 and the 2016 CBC Section 1910.1. Additional site testing and final design evaluation shall be conducted by the Project Geotechnical Consultant to refine and enhance these	

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
	requirements. The Applicant/Developer shall require the Project Geotechnical Consultant to assess whether the requirements in that report need to be modified or refined to address any changes in the project features that occur prior to the start of grading. If the Project Geotechnical Consultant identifies modifications or refinements to the requirements, the Applicant/Developer shall require appropriate changes to the final project design and specifications. Design, grading, and construction shall be performed in accordance with the requirements of the City of Cypress Municipal Code and the California Building Code (CBC) applicable at the time of grading, appropriate local grading regulations, and the requirements of the Project Geotechnical Consultant as summarized in a final written report, subject to review by the City of Cypress Director of Public Works, or designee, prior to commencement of grading activities. Grading plan review shall also be conducted by the Director of Public Works, or designee, prior to the start of grading to verify that the requirements developed during the geotechnical design evaluation have been appropriately incorporated into the project plans. Design, grading, and construction shall be conducted in accordance with the specifications of the Project Geotechnical Consultant as summarized in a final report based on the CBC applicable at the time of grading and building, and the City's Building Code. On-site inspection during grading shall be conducted by the Project Geotechnical Consultant and the City of Cypress Director of Public Works/City Engineer, or designee, to ensure compliance with geotechnical	

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
	specifications as incorporated into project plans. Prior to the final grading permits, the Project Geotechnical Consultant shall submit a Final Testing and Observation Geotechnical Report for Rough Grading to the City of Cypress Director of Public Works/City Engineer, or designee.	
Threshold 4.6.1(iii): Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Seismic-related ground failure, including liquefaction? **Less Than Significant with Mitigation Incorporated.** The secondary effects of seismic activity that are typically considered as potential hazards to a particular site include several types of ground failure. The general types of ground failure that can occur as a consequence of severe ground shaking include landsliding, ground subsidence, ground lurching, and shallow ground rupture, as well as liquefaction-induced vertical settlement, lateral spreading, and surface manifestation of liquefaction. The probability of the occurrence of each type of ground failure depends on the severity of the earthquake, distance from the causative fault, topography, soil and groundwater conditions, and other factors. Mitigation Measure 4.6-1 includes ground improvement recommendations (a combination of newly compacted fill and shallower ground improvement, such as aggregate and geogrid reinforcement) to mitigate potential impacts related to liquefaction-induced settlement. The undocumented fill in the project site would also be completely removed and replaced with engineered fill (Mitigation Measure 4.6-1). With the implementation of Mitigation Measure 4.6-1, the potential adverse effects of seismic-related ground failure including liquefaction would be less than significant.	Refer to Mitigation Measure 4.6-1, above.	Less Than Significant with Mitigation Incorporated.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Threshold 4.6.1(iv): Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Landslides? **No Impact.** The project site and vicinity are relatively flat, and the site is not located within a zone of earthquake-induced landslide as mapped by the CGS (1998). Historically, there have been no recorded landslides within the City's boundaries (City of Cypress, 2001, page 4.6-7). No landslides are anticipated as the result of the proposed project, and there would be no impact.	No mitigation is required.	No Impact.
Threshold 4.6.2: Would the project result in substantial soil erosion or the loss of topsoil? **Less Than Significant Impact.** Most of the site is covered by older degraded asphalt. The northern boundary of the site consists of some landscaping, trees, shrubs, and turf. The total surface area of these existing unpaved areas is approximately 7 acres. In the proposed condition, approximately 5.84 acres of the project site would be impervious surface area and not prone to on-site erosion or siltation because no soil would be included in these areas. The remaining acreage of the approximately 7-acre project site would consist of pervious surface area, which would contain landscaping that would minimize on-site erosion and siltation by stabilizing the soil. Therefore, on-site erosion and siltation impacts would be minimal. Therefore, on-site erosion impacts would be minimal. For these reasons, operational impacts related to substantial on-site erosion would be less than significant, and no mitigation is required.	No mitigation is required.	Less Than Significant Impact.
Threshold 4.6.3: Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse?		

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Landslides and Unstable Slopes	**Landslides and Unstable Slopes**	**Landslides and Unstable Slopes**
Less Than Significant Impact. Landslides and other forms of mass wasting, including mud flows, debris flows, and soil slips occur as soil moves downslope under the influence of gravity. Landslides are frequently triggered by intense rainfall or seismic shaking. Because the project site is located in a relatively flat area, landslides or other forms of natural slope instability do not represent a significant hazard to the project. In addition, as stated above, the site is not within a State-designated hazard zone for an earthquake-induced landslide. Therefore, potential impacts related to landslides would be less than significant, and no mitigation is required.	Less Than Significant Impact.	Less Than Significant Impact.
Lateral Spreading	**Lateral Spreading**	**Lateral Spreading**
Less Than Significant Impact. Lateral spreading often occurs on very gentle slopes or flat terrain. The dominant mode of movement is lateral extension accompanied by shear or tensile fracture. This failure is caused by liquefaction and is usually triggered by rapid ground motion, such as that experienced during an earthquake, but can also be artificially induced. When coherent material, either bedrock or soil, rests on materials that liquefy, the upper units may undergo fracturing and extension and may then subside, translate, rotate, disintegrate, or liquefy and flow. As discussed above, the Geotechnical Assessment indicates that lateral spreading is not a potential concern with respect to the proposed project. Therefore, potential impacts related to lateral spreading would be less than significant, and no mitigation is required.	Less Than Significant Impact.	Less Than Significant Impact.
Subsidence	**Subsidence**	**Subsidence**
No Impact. Subsidence refers to broad-scale changes in the elevation of land. Common causes of land subsidence are pumping water, oil, and gas from underground reservoirs; dissolution of limestone aquifers (sinkholes); collapse of	No Impact.	No Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
underground mines; drainage of organic soils; and initial wetting of dry soils (hydrocompaction). Subsidence is also caused by heavy loads generated by large earthmoving equipment. The project site is not located within an area of known subsidence that may be associated with groundwater, peat loss, or oil extraction. Therefore, the proposed project would not be subject to potential geotechnical hazards related to subsidence, and no mitigation is required.		
Liquefaction and Compressible/Collapsible Soils **Less Than Significant with Mitigation Incorporated.** As discussed in detail under Threshold 4.6.1(iii) above, implementation of Mitigation Measure 4.6-1 and adherence to the regulatory standards described in Regulatory Compliance Measure GEO-1 would be required to address the proposed project's impacts with respect to liquefaction and compressible soils. Provided that design and remedial grading, ground improvement (as necessary), and design of building foundation systems are performed in accordance with the applicable requirements in the CBC (adopted by the City as its Building Code with certain amendments), and current standards of practice in the area, excessive settlement resulting from liquefaction and compression of existing undocumented fill and native alluvial soils on the project site would be reduced to a less than significant level.	**Liquefaction and Compressible/Collapsible Soils** See Mitigation Measure 4.6-1 and Regulatory Compliance Measure GEO-1, which are provided above.	**Liquefaction and Compressible/ Collapsible Soils** Less Than Significant with Mitigation Incorporated.
Wet Soils **Less Than Significant with Mitigation Incorporated.** Due the presence of shallow groundwater, excavations deeper than 3 to 4 ft are likely to encounter groundwater and/or soft, wet soil. Implementation of Mitigation Measure 4.6-1, which requires that the ground stabilization recommendations in the Geotechnical Assessment be implemented during grading and construction, would address soft ground conditions due to	**Wet Soils** See Mitigation Measure 4.6-1, above.	**Wet Soils** Less Than Significant with Mitigation Incorporated.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
shallow groundwater. With implementation of Mitigation Measure 4.6-1, the proposed project's impacts related to wet soils would be less than significant.		
Threshold 4.6.4: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating direct or indirect substantial risks to life or property? **Less Than Significant Impact.** Expansive soils are soils that experience volumetric changes in response to increases or decreases in moisture content. The project site stratigraphy consists of Artificial Fill and Quaternary Alluvium (GeoTek, Inc., 2019). These soil types have low shrink-swell potential and, therefore, are not susceptible to expansion. In the event that, following the completion of grading, it is determined that near-surface soils within building pad areas exhibit an elevated expansion potential, potential impact of those expansive soils would be addressed through design of structural foundations and floor slabs in compliance with applicable requirements in the CBC, as adopted by the City of Cypress in its Municipal Code (Regulatory Compliance Measure GEO-1). Since the potential for expansive soils is low and any potential expansion would be addressed through compliance with applicable code requirements, the proposed project would not create substantial potential risks to life or property, and there would be less than significant impacts.	See Regulatory Compliance Measure GEO-1.	Less Than Significant Impact.
Threshold 4.6.5: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? **No Impact.** The proposed project would not include the use of septic tanks or alternative wastewater disposal systems because sanitary sewer and wastewater facilities are available in the vicinity of the project site. Therefore, the project would have no	No mitigation is required.	No Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
impact with respect to septic tanks or alternative wastewater disposal systems.		
Threshold 4.6.6: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? **Less Than Significant with Mitigation Incorporated.** The project site contains Artificial Fill, which has no paleontological sensitivity, and Young Alluvium, Unit 2, which has low paleontological sensitivity from the surface to a depth of 10 ft and high paleontological sensitivity below 10 ft. With a maximum depth of less than 10 ft for excavation, the proposed project is expected to remain in deposits with no or low paleontological sensitivity. However, in the event that paleontological resources are encountered during construction, Mitigation Measure 4.6-2 would require work in the immediate area of the discovery to be halted and a qualified paleontologist contacted to assess the discovery. These procedures would mitigate potential impacts to scientifically significant, nonrenewable paleontological resources.	**Mitigation Measure 4.6-2:** **Procedures for Unexpected Paleontological Resources Discoveries.** In the event that paleontological resources are encountered, work in the immediate area of the discovery shall be halted and the Applicant/Developer shall retain a professional Paleontologist who meets the qualifications established by the Society of Vertebrate Paleontology to assess the discovery. The qualified, professional Paleontologist shall make recommendations regarding the treatment and disposition of the discovered resources, as well as the need for subsequent paleontological mitigation, which may include, but not be limited to, paleontological monitoring; collection of observed resources; preservation, stabilization, and identification of collected resources; curation of resources into a museum repository; and preparation of a monitoring report of findings. The City of Cypress shall ensure that the recommendations from the qualified, professional Paleontologist shall be followed by the Applicant/Developer.	Less than Significant with Mitigation Incorporated.
Cumulative Geology and Soils Impacts. **Less Than Significant with Mitigation Incorporated.** Typically, geology and soils impacts are specific to a particular project site and there is little, if any, cumulative relationship between the development of a proposed project and development within a larger cumulative area. Moreover, while seismic conditions are regional in nature, seismic impacts on a given project site are site-specific. For example, development within the project site	Refer to Mitigation Measure 4.6-2, provided above.	Less Than Significant with Mitigation Incorporated.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
would not alter geologic events or soil features/characteristics (such as ground shaking, seismic intensity, or soil expansion or compression). Therefore, the proposed project would not affect the level of intensity at which a seismic event on an adjacent site is experienced. Potential impacts of the proposed project to unknown paleontological resources and unique geologic features, when combined with the impacts of past, present, and reasonably foreseeable projects in the City of Cypress, could contribute to a cumulatively significant impact due to the overall loss of paleontological remains unique to the region. When resources are assessed and/or protected as they are discovered, impacts to these resources are less than significant. As such, implementation of Mitigation Measure GEO-2 would ensure that the proposed project, together with cumulative projects, would not result in significant cumulative impacts to unique paleontological resources or unique geologic features.		
4.7: Greenhouse Gas Emission		
Threshold 4.7.1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? **Less Than Significant Impact.** **Construction.** The proposed project would generate approximately 1,437.0 metric tons of carbon dioxide equivalent (MT of CO_2e) over the course of construction. Because construction would be temporary, would cease upon project completion, and would not result in a permanent increase in emissions, impacts would be less than significant, and no mitigation is required. **Operation.** The proposed project would generate 1,513.3 MT CO2e per year. This level of project-related GHG emissions would fall below the SCAQMD bright-line screening threshold of	No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
3,500 MT CO_2e per year for residential development. Therefore, GHG emissions generated by the project are not considered to be cumulatively contributable to statewide GHG emissions, and impacts would be less than significant. No mitigation is required.		
Threshold 4.7.2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? **Less Than Significant Impact.** Applicable plans adopted for the purpose of reducing greenhouse gas emissions include CARB's Scoping Plan and SCAG's 2020–2045 RTP/SCS. The proposed project would comply with existing State regulations adopted to achieve the overall GHG emissions reduction goals identified in AB 32, the AB 32 Scoping Plan, Executive Order B-30-15, SB 32, and AB 197 and would be consistent with applicable State plans and programs designed to reduce GHG emissions. Based on the nature of the proposed project, it is anticipated that implementation of the proposed project would not interfere with SCAG's ability to implement the regional strategies outlined in its 2020–2045 RTP/SCS. Therefore, the proposed project would not conflict with an adopted plan, policy, or regulation pertaining to greenhouse gas emissions, and impacts are considered less than significant. No mitigation is required.	No mitigation is required.	Less Than Significant Impact.
Cumulative Greenhouse Gas Emissions Impacts. **Less Than Significant Impact.** GHG emissions are global pollutants, and therefore, result in cumulative impacts by nature. Project impacts identified in this analysis are not project-specific impacts to global climate change (GCC), but are the proposed project's cumulative contribution to this impact. The impact of project-related GHG emissions would not result in a reasonably foreseeable cumulatively considerable contribution to GCC. Additionally, the proposed project, in conjunction with other cumulative projects, would be subject to	No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
all applicable regulatory requirements, which would further reduce GHG emissions. Lastly, the project would not conflict with an applicable plan, policy or regulation adopted to reduce GHG emissions. Therefore, the project's cumulative contribution of GHG emissions would be less than significant and the project's cumulative GHG impacts would also be less than cumulatively considerable.		
4.8: Hazards and Hazardous Materials		
Threshold 4.8.1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? **Less Than Significant Impact.** **Construction.** Construction of the proposed project would temporarily increase the regional transport, use, and disposal of construction-related hazardous materials and petroleum products (e.g., diesel fuel, lubricants, paints and solvents, and cement products containing strong basic or acidic chemicals). These materials are commonly used at construction sites, and the construction activities would be required to comply with applicable State and federal regulations for proper transport, use, storage, and disposal of excess hazardous materials and hazardous construction waste. With adherence to the regulatory standards included in Regulatory Compliance Measures HYD-1 and HYD-2, impacts related to the routine transport, use, or disposal of hazardous materials during construction would be less than significant. **Operation.** Residential uses included in the proposed project may include the use and disposal of typical cleaning products along with limited use of pesticide and herbicides for landscape maintenance. Vehicles accessing the homes on site would contain oil and gasoline, to power their engines, which could have the potential to result in minor releases of such substances	No mitigation is required. Refer to Regulatory Compliance Measures HYD-1 and HYD-2, which are provided in Section 4.9, Hydrology and Water Quality.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
through drips or leaks from parking areas. The proposed project's uses are not anticipated to be associated with major hazardous materials and would not create unusually high quantities of hazardous waste. The proposed project would be reviewed by the OCFA for hazardous material use, safe handling, and storage of materials. Prior to the issuance of grading permits, conditions of approval would be applied to the proposed project by the OCFA to reduce hazardous material impacts and insure that any hazardous waste that is generated on site would be transported to an appropriate disposal facility by a licensed hauler in accordance with State and federal law. Therefore, due to the type and nature of the proposed project, its implementation would result in less than significant impacts related to the routine transport, use, or disposal of hazardous materials; no mitigation is required.		
Threshold 4.8.2: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? **Less Than Significant Impact.** Because no significant hazards would be created by uses associated with the proposed project, the potential for the proposed project to 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 would be less than significant; no mitigation is required.	No mitigation is required.	Less Than Significant Impact.
Threshold 4.8.3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? **Less Than Significant Impact.** Grace Christian School is located approximately 0.75 mile northwest of the project site, and the	No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Cottonwood Christian Center preschool facility is located approximately 0.5 mile west of the project site. The proposed project's uses would not pose a significant threat of hazardous emissions or significant handling of hazardous materials or substances. Therefore, impacts on schools would be less than significant; no mitigation is required.		
Threshold 4.8.4: Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? **Less Than Significant Impact.** The government records database search completed as part of the Phase I Environmental Site Assessment (ESA), determined that the project site is not included on any of the queried databases of hazardous materials sites that could create a significant hazard to the public or the environment. The Phase I ESA included an analysis of surrounding properties within a 1-mile radius of the project site. The Phase I ESA identified several listings for off-site adjacent or nearby properties on databases potentially indicative of a contamination concern. However, the Phase I ESA concluded that these sites do not pose a potential hazard to the project site and no further investigation of the project site is required. Therefore, impacts related to hazardous materials sites would remain less than significant; no mitigation is required.	No mitigation is required.	Less Than Significant Impact.
Threshold 4.8.5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? **Less Than Significant Impact.** The project site is located approximately 0.5 mile north of the Joint Forces Training Base	No mitigation is required. Although project-related impacts would be less than significant, incorporation of the following Regulatory Compliance Measure would be required to reduce impacts on hazards. **Regulatory Compliance Measure HAZ-1:** **Federal Aviation Regulation Title 14 Part 77.** The	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
(JFTB) Los Alamitos. Implementation of the proposed project would not result in a safety hazard for people working in the project area because the project would comply with all appropriate FAA standards and requirements, including Regulatory Compliance Measure HAZ-1, which requires that the FAA be notified of any proposed structure(s) that would penetrate the 100 to 1 imaginary surface that surrounds the runway at JFTB Los Alamitos. The FAA would then be responsible for reviewing the height of the proposed structures and determining whether they pose a potential aviation hazard. With adherence to the regulatory standards provided in Regulatory Compliance Measure HAZ-1, implementation of the proposed project would result in less than significant impacts related to safety hazards for people working in the project area; no mitigation is required.	Applicant/Developer shall notify the Federal Aviation Administration (FAA) of any proposed structure(s) that would penetrate the 100 to 1 imaginary surface that surrounds the runway at Joint Forces Training Base Los Alamitos at least 45 days prior to beginning construction.	
Threshold 4.8.6: Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? **No Impact.** The project site is not located along an emergency evacuation route. Therefore, implementation of the proposed project would not interfere with the adopted emergency response plan and/or the emergency evacuation plan. No impact would occur; no mitigation is required.	No mitigation is required.	No Impact.
Threshold 4.8.7: Would the project 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 located within a fully urbanized area. There are no wildlands adjacent or in the vicinity of the project site, and the project site is not designated as a Fire Hazard Severity Zone on the Statewide CAL FIRE Map. Therefore, there would be no risk of loss, injury, or death involving wildland fires. No impact would occur, and no mitigation is required.	No mitigation is required.	No Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Cumulative Hazards and Hazardous Materials Impacts. **Less Than Significant Impact.** For the proposed project, impacts due to hazardous materials would be less than significant. Although some of the cumulative projects listed also have potential impacts associated with hazardous materials, the environmental concerns associated with hazardous materials are site specific. Each project is required to address any issues related to hazardous material or wastes. Federal, state, and local regulations require mitigation to protect against site contamination by hazardous materials. Therefore, there would be no cumulative hazardous materials impacts.	No mitigation is required.	Less Than Significant Impact.
4.9: Hydrology and Water Quality		
Threshold 4.9.1: Would the project violate any water quality standards or waste discharge requirements? **Less Than Significant Impact.** The proposed project would comply with existing NPDES regulations and would implement construction and operational BMPs. Construction and operational BMPs would reduce pollutants of concern in stormwater runoff, and would ensure that water quality impacts are less than significant.	No mitigation is required. Although project-related impacts would be less than significant, incorporation of the following Regulatory Compliance Measures would be required to reduce hydrology and water quality impacts. **Regulatory Compliance Measure HYD-1:** **Construction General Permit.** Prior to commencement of construction activities, the Applicant/Developer shall obtain coverage under the *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit),* NPDES No. CAS000002, Order No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ, or any other subsequent permit. This shall include submission of Permit Registration Documents (PRDs), including permit application fees, a Notice of Intent (NOI), a risk assessment, a site plan, a Stormwater Pollution Prevention Plan (SWPPP), a signed certification	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
	statement, and any other compliance-related documents required by the permit, to the State Water Resources Control Board via the Stormwater Multiple Application and Report Tracking System (SMARTS). Construction activities shall not commence until a Waste Discharge Identification Number (WDID) is obtained for the project from the SMARTS and provided to the Director of the City of Cypress Community Development Department, or designee, to demonstrate that coverage under the Construction General Permit has been obtained. Project construction shall comply with all applicable requirements specified in the Construction General Permit, including, but not limited to, preparation of a SWPPP and implementation of construction site best management practices (BMPs) to address all construction-related activities, equipment, and materials that have the potential to impact water quality for the appropriate risk level identified for the project. The SWPPP shall identify the sources of pollutants that may affect the quality of stormwater and shall include BMPs (e.g., Sediment Control, Erosion Control, and Good Housekeeping BMPs) to control the pollutants in stormwater runoff. Construction Site BMPs shall also conform to the requirements specified in the latest edition of the Orange County Stormwater Program *Construction Runoff Guidance Manual for Contractors, Project Owners, and Developers* to control and minimize the impacts of construction and construction-related activities, materials, and pollutants on the watershed. Upon completion of construction activities and stabilization of the project site, a Notice of Termination shall be	

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
	submitted via SMARTS. **Regulatory Compliance Measure HYD-3:** **Best Management Practices.** The Applicant/ Developer shall implement the BMPs identified in Section IV of the On-Site and Off-Site Water Quality Management Plans and the drainage improvements identified in the Hydrology and Hydraulics Study. In addition, the Property Owners Association shall be the responsible party for inspection and maintenance of the on-site BMPs as identified in Section V of the On-Site Preliminary Water Quality Management Plan. The City shall be the responsible party for inspection and maintenance of the off-site BMPs as identified in Section V of the Off-Site Water Quality Management Plan.	
Threshold 4.9.2: Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? **Less Than Significant Impact.** Construction and operation of the proposed project would not involve direct groundwater extraction, and increased water use would not substantially affect groundwater supplies. Additionally, groundwater dewatering would be localized and temporary, and the volume of groundwater removed would not be substantial.	No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Threshold 4.9.3: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? **Less Than Significant Impact.** The proposed project would comply with the requirements of the Construction General Permit and would implement construction BMPs to reduce impacts related to on-site, off-site, or downstream erosion or siltation. In addition, the proposed project would not increase downstream erosion or siltation impacts during operation because downstream receiving waters are not susceptible to hydromodification.	No mitigation is required. Refer to Regulatory Compliance Measure HYD-1, which is provided above.	Less Than Significant Impact.
Threshold 4.9.4: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? **Less Than Significant Impact.** The proposed project would comply with existing NPDES requirements and would implement construction BMPs, Modular Wetland Systems, and a detention system. With implementation of the proposed Modular Wetland Systems and detention system, impacts related to a substantial increase in the rate or amount of surface runoff, flow, and volume that would result in flooding would be less than significant.	No mitigation is required. Refer to Regulatory Compliance Measure HYD-1, which is provided above.	Less Than Significant Impact.
Threshold 4.9.5: Would the project 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.** The proposed project would comply with existing NPDES requirements to prevent substantial additional sources of polluted runoff being	No mitigation is required. Although project-related impacts would be less than significant, incorporation of the following Regulatory Compliance Measures would be required to reduce hydrology and water quality impacts. Refer to Regulatory Compliance Measures HYD-1	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
discharged to the storm drain system, and would target pollutants of concern in runoff from the project site through implementation of construction and operational BMPs. The proposed project includes Modular Wetland systems and a detention system to reduce stormwater runoff so as to not exacerbate the existing stormdrain capacity deficit.	and HYD-3, which are provided above. **Regulatory Compliance Measure HYD-2:** **Groundwater Dewatering Permit.** If groundwater dewatering is required during excavation activities, the Applicant/Developer shall obtain coverage under the *General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (De Minimis) Threat to Water Quality (*Order No. R8-2009-0003, NPDES No. CAG998001) (*De Minimis* Permit). This shall include submission of a Notice of Intent (NOI) for coverage under the permit to the Santa Ana Regional Water Quality Control Board (RWQCB) at least 45 days prior to the start of dewatering. Groundwater dewatering activities shall comply with all applicable provisions in the permit, including water sampling, analysis, treatment (if required), and reporting of dewatering-related discharges. Upon completion of groundwater dewatering activities, a Notice of Termination shall be submitted to the Santa Ana RWQCB.	
Threshold 4.9.6: Would the project otherwise substantially degrade water quality? **Less Than Significant Impact.** The proposed project would comply with existing NPDES regulations and would implement construction and operational BMPs. Construction and operational BMPs would reduce pollutants of concern in stormwater runoff to ensure that the proposed project would not substantially degrade water quality.	No mitigation is required. Refer to Regulatory Compliance Measures HYD-1 and HYD-3, which are provided above.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Threshold 4.9.7: Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? **No Impact.** The project site is not located within a 100-year floodplain; therefore, the project would not place housing or structures within a 100-year flood hazard area. According to the Federal Emergency Management Agency (FEMA) Federal Insurance Rate Map (FIRM) No. 06059C0116J (December 3, 2009), the project site is located within Zone X, which comprises areas of 0.2 percent annual chance flood (500-year flood).	No mitigation is required.	No Impact.
Threshold 4.9.8: Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows? **No Impact.** The project site is not located within a 100-year floodplain; therefore, the project would not place housing or structures within a 100-year flood hazard area. According to the Federal Emergency Management Agency (FEMA) Federal Insurance Rate Map (FIRM) No. 06059C0116J (December 3, 2009), the project site is located within Zone X, which comprises areas of 0.2 percent annual chance flood (500-year flood).	No mitigation is required.	No Impact.
Threshold 4.9.9: Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? **Less Than Significant Impact.** The project site is located within the inundation zone of Prado Dam and the Carbon Canyon Dam. Although the project would construct new structures in an inundation zone, the proposed project would not increase the chance of inundation from failure of Carbon Canyon Dam or Prado Dam. Additionally, the City's emergency evacuation plans would be implemented if these dams were susceptible to rupture during heavy rains or other events.	No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Threshold 4.9.10: Would the project be subject to inundation by seiche, tsunami, or mudflow? **No Impact.** The project site is relatively flat and not at risk of mudflow, and is not located within an inundation zone of a seiche or tsunami.	No mitigation is required.	No Impact.
Threshold 4.9.11: Would the project result in an increase in pollutant discharges to receiving waters? Consider water quality parameters such as temperature, dissolved oxygen, turbidity and other typical stormwater pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash) **Less Than Significant Impact.** The proposed project would comply with existing NPDES regulations and would implement construction and operational BMPs. Construction and operational BMPs would reduce pollutants of concern in stormwater runoff, and would ensure that increased pollutant discharge during project construction and operation would be less than significant.	No mitigation is required. Refer to Regulatory Compliance Measures HYD-1, HYD-2, and HYD-3, which are provided above.	Less Than Significant Impact.
Threshold 4.9.12: Would the project result in significant alteration of receiving water quality during or following construction? **Less Than Significant Impact.** The proposed project would comply with existing NPDES regulations and would implement construction and operational BMPs. Construction and operational BMPs would reduce pollutants of concern in stormwater runoff, and would ensure that alteration of receiving water quality during project construction and operation would be less than significant.	No mitigation is required. Refer to Regulatory Compliance Measures HYD-1, HYD-2, and HYD-3, which are provided above.	Less Than Significant Impact.
Threshold 4.9.13: Could the proposed project result in increased erosion downstream? **Less Than Significant Impact.** The proposed project would comply with existing NPDES regulations and would implement	No mitigation is required. Refer to Regulatory Compliance Measure HYD-1, which is provided above.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
construction BMPs to reduce impacts related to on-site, off-site, or downstream erosion or siltation. In addition, the proposed project would not increase downstream erosion or siltation impacts during operation because downstream receiving waters are not susceptible to hydromodification.		
Threshold 4.9.14: Would the project result in increased impervious surfaces and associated increased runoff? **No Impact.** The proposed project would not change the impervious surface area on site and therefore would not increase stormwater runoff from the project site. The proposed project would also include a detention system to reduce peak discharges from the project site.	No mitigation is required.	Less Than Significant Impact.
Threshold 4.9.15: Would the project create a significant adverse environmental impact to drainage patterns due to changes in runoff flow rates or volumes? **Less Than Significant Impact.** The proposed project would comply with the requirements of the Construction General Permit and would implement construction BMPs, proposed storm drain systems, and a detention system to reduce impacts related to a substantial increase in the rate or amount of surface runoff, flow, and volume that would result in flooding.	No mitigation is required. Refer to Regulatory Compliance Measure HYD-1, which is provided above.	Less Than Significant Impact.
Threshold 4.9.16: Would the project be tributary to an already impaired water body, as listed on the Clean Water Act Section 303(d) list? If so, can it result in an increase in any pollutant for which the water body is already impaired? **Less Than Significant Impact.** The proposed project would comply with the requirements of the Construction General Permit and would implement construction and operational BMPs to target and reduce pollutants in stormwater runoff from the project site, including those contributing to downstream water quality impairments.	No mitigation is required. Refer to Regulatory Compliance Measures HYD-1, HYD-2, and HYD-3, which are provided above.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Threshold 4.9.17: Would the project be tributary to other environmentally sensitive areas? If so, can it exacerbate already existing sensitive conditions? **No Impact.** The nearest CWA Section 303(d) impaired waterbody is San Gabriel River, which is located approximately 3 miles downstream of the project site. The project would not discharge directly into this CWA Section 303(d) impaired water.	No mitigation is required.	No Impact.
Threshold 4.9.18: Would the project have a potentially significant environmental impact on surface water quality to either marine, fresh, or wetland waters? **Less Than Significant Impact.** The proposed project would comply with existing NPDES regulations and would implement construction and operational BMPs. Construction and operational BMPs would reduce pollutants of concern in stormwater runoff, and would ensure that environmental impacts on surface water quality to marine, fresh, or wetland waters during project construction and operation would be less than significant.	No mitigation is required. Refer to Regulatory Compliance Measures HYD-1, HYD-2, and HYD-3, which are provided above.	Less Than Significant Impact.
Threshold 4.9.19: Would the project have a potentially significant adverse impact on groundwater quality? **Less Than Significant Impact.** Because minimal infiltration would occur and no groundwater injection would occur, project activities would not substantially degrade groundwater quality.	No mitigation is required.	Less Than Significant Impact.
Threshold 4.9.20: Would the project cause or contribute to an exceeded applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses? **Less Than Significant Impact.** Because minimal infiltration would occur and no groundwater injection would occur, project activities would not result in the exceedance of water quality objectives or degradation of beneficial uses.	No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Threshold 4.9.21: Would the project impact aquatic, wetland, or riparian habitat? **No Impact.** There are no aquatic, wetland, or riparian habitat present on the project site. Los Alamitos Channel, the downstream receiving water, is concrete-lined and does not provide aquatic, wetland, or riparian habitat.	No mitigation is required.	No Impact.
Threshold 4.9.22: Would the project include new or retrofitted stormwater treatment control Best Management Practices (e.g., water quality treatment basin, constructed treatment wetlands), the operation of which could result in significant environmental effects (e.g., increased vectors or odors)? **Less Than Significant Impact.** The project would include implementation of operational BMPs to reduce impacts related to hydrology and water quality. The operational BMPs would be designed and routinely inspected and maintained to reduce impacts related to vectors and odors.	No mitigation is required.	Less Than Significant Impact.
Cumulative Hydrology and Water Quality Impacts. **Less Than Significant Impact.** The proposed project and other related projects would comply with the applicable NPDES requirements and would implement construction and operational BMPs and drainage facilities to reduce impacts related to hydrology and water quality.	No mitigation is required.	Less Than Significant Impact.
4.10: Land Use and Planning		
Threshold 4.10.1: Would the project physically divide an established community? **No Impact.** The area surrounding the project site is developed with a variety of racetrack, office, business park, commercial, and residential land uses. The proposed project would replace approximately seven acres of surface parking with residential uses. The proposed project would complement existing and planned development in the Specific Plan and the adjacent	No mitigation is required.	No Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Cypress Corporate Center Specific Plan area. In addition, the proposed project is designed to provide safe and attractive pedestrian connections to surrounding land uses rather than dividing or separating existing land uses or neighborhoods. As a result, the project would not result in physical divisions in any established community. No mitigation is required.		
Threshold 4.10.2: Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? **Less Than Significant Impact.** As discussed above, the main documents regulating land use on the project site and the immediate vicinity are the City's General Plan, the Zoning Ordinance, and the Specific Plan. The proposed project would be consistent with the 2020–2045 RTP/SCS, the City's General Plan, and the Specific Plan. Therefore, the proposed project would result in less than significant impacts related to potential conflicts with applicable land use plans, policies, and regulations, and no mitigation is required.	No mitigation is required.	Less Than Significant Impact.
Cumulative Land Use and Planning Impacts. **Less Than Significant Impact.** There are no incompatibilities between the proposed project and planned future projects in the City, which primarily include mixed-use and residential developments. As discussed previously, the proposed project would not divide an established community; conflict with the SCAG 2020–2045 RTP/SCS or any City-adopted plans or policies. All identified City-related projects would be reviewed for consistency with adopted land use plans and policies by the City. For this reason, the related projects are anticipated to be consistent with applicable General Plan and zoning requirements, or would be subject to allowable exceptions; further, they would be subject to CEQA, mitigation requirements, and design review. Therefore, the proposed	No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
project would not contribute to a significant cumulative land use compatibility impact in the study area, and no mitigation is required.		
4.11: Noise		
Threshold 4.11.1: Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? **Less Than Significant Impact.** **Construction Noise.** During project construction, exterior noise levels could affect sensitive receptors in the vicinity. The closest residences within the City of Cypress are located approximately 260 ft southwest of the project site (the Cypress Town Center Project, which may be open by the time the project is built). In addition, the closest church is located approximately 590 ft north of the project site. Construction activities would expose nearby sensitive receptors to peak noise levels from 67 to 74 dBA L_{max} during the grading phase, 66 to 73 dBA L_{max} during the trenching phase, 68 to 75 dBA L_{max} during the buildings construction and paving phases, and 59 to 66 dBA L_{max} during the architectural coating phase. These noise levels would not exceed the anytime maximum daytime exterior noise standard of 80 dBA L_{max} in the City of Cypress. The closest residences within the City of Los Alamitos are located approximately 1,070 ft south of the project site. Construction activities would expose these residences to 63 dBA L_{max} during the buildings construction and paving phases and all other phases would be lower than 63 dBA L_{max}. Therefore noise levels would not exceed the anytime maximum daytime exterior noise standard of 75 dBA L_{max} in the City of Los Alamitos. The proposed project would comply with the permitted	**Regulatory Compliance Measure NOI-1:** The construction contractor shall limit all construction-related activities to between the hours 7:00 a.m. and 8:00 p.m. on weekdays and between the hours of 9:00 a.m. and 8:00 p.m. on Saturdays. No construction shall be permitted outside of these hours or on Sundays or a federal holiday. **Standard Condition NOI-1:** Prior to the issuance of a grading permit, the construction contractor shall demonstrate, to the satisfaction of the City of Cypress Director of Community Development, or designee, the following: ● Construction contracts shall specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other State required noise attenuation devices. ● Construction noise reduction methods such as shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and use of electric air compressors and similar power tools, rather than diesel equipment, shall be	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
construction hours from 7:00 a.m. to 8:00 p.m. on weekdays and 9:00 a.m. to 8:00 p.m. on Saturdays as specified in the Cypress Municipal Code. No construction shall be permitted outside of these hours or on Sundays or federal holidays (Regulatory Compliance Measure NOI-1). The implementation of Standard Condition NOI-1 would further minimize construction-related noise to a less than significant impact. **Operational Noise.** Operational noise sources associated with the proposed project include mobile and stationary (HVAC equipment) sources. The proposed project would not result in any exceedances in mobile-source or stationary source noise standards. Operational impacts would be less than significant with the incorporation of Regulatory Compliance Measure NOI-2. No mitigation is required.	used where feasible. ● During construction, stationary construction equipment shall be placed such that emitted noise is directed away from noise-sensitive receptors. ● All construction entrances shall clearly post construction hours, allowable workdays, and the phone number of the job superintendent. This will allow surrounding owners and residents to contact the job superintendent with concerns. If the Applicant/Developer receives a noise-related complaint, appropriate corrective actions shall be implemented and a report taken indicating the action with a copy of the report provided to the reporting party upon request. **Regulatory Compliance Measure NOI-2:** Mechanical equipment, including air conditioning units in residential, commercial, and industrial zoning districts, shall be enclosed within a structure or completely screened from view from surrounding properties by the use of a fence or wall consistent with Section 3.11.100(b) of the City of Cypress Municipal Code. Additionally, prior to the issuance of building permits, the Applicant/ Developer shall demonstrate, to the satisfaction of the City of Cypress Director of Community Development, or designee, that on-site stationary noise sources, such as air conditioners, shall not exceed City noise standards as stated within the City's Municipal Code Sections 13-68 and 13-69.	

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Threshold 4.11.2: Would the project result in generation of excessive groundborne vibration or groundborne noise levels? **Less Than Significant Impact.** Increases in groundborne vibration levels attributable to the proposed project would be primarily associated with short-term construction-related activities. Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment. Based on the vibration levels presented in Caltrans' Transportation and Construction Vibration Guidance Manual (2013), ground vibration generated by heavy-duty equipment at the closest residential, church, office, and commercial building would not be anticipated to exceed the community annoyance thresholds. In addition, vibration levels would not result in building damage because vibration levels would not exceed the FTA Manual damage threshold of 94 VdB (0.2 PPV [inch/sec]) and nearby buildings were observed to be constructed of non-engineered timber and masonry. Therefore, ground-borne vibration and ground-borne noise levels generated by project construction activities would be less than significant with the implementation of mitigation measures.	No mitigation is required.	Less Than Significant Impact.
Threshold 4.11.3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? **Less Than Significant Impact.** The closest airport to the project site is the JFTB Los Alamitos, located approximately 0.5 mile south of the project site. The project site is within the 60 dBA CNEL noise contour, but outside of the 65 dBA CNEL noise contour for JFTB Los Alamitos. Given the proposed project does	No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
not contain outdoor sensitive receptors and the City defined levels between 60 and 65 dBA CNEL as conditionally acceptable with the incorporation of HVAC allowing a windows closed condition and standard building construction, the noise impacts related to airport noise would be less than significant, and no mitigation is required.		
Cumulative Noise Impacts. **Less Than Significant Impact.** **Construction Noise.** Construction activities associated with the proposed project and other construction projects in the area may overlap, resulting in construction noise in the area. However, construction noise impacts primarily affect the areas immediately adjacent to each construction site. Construction noise for the proposed project was determined to be less than significant with the implementation of Regulatory Compliance Measure NOI-1, which requires compliance with the construction hour restrictions specified in the City's Municipal Code. Additionally, with the implementation of Standard Condition NOI-1, noise levels generated would be minimized. Cumulative development in the vicinity of the project site could result in elevated construction noise levels at sensitive receptors in the area surrounding the project site. However, each project would be required to comply with the applicable city's Municipal Code limitations on construction. Therefore, cumulative construction noise impacts would be less than significant with the implementation of Regulatory Compliance Measure NOI-1 and Standard Condition NOI-1. **Operational Stationary Source Noise.** Long-term stationary noise sources associated with the development at the proposed project, combined with other cumulative projects, could cause local noise level increases. Noise levels associated with the proposed project and related projects together could result in higher noise levels than considered separately. As previously	Refer to Regulatory Compliance Measure NOI-1 and Standard Condition NOI-1, which are provided above.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
described, the proposed project would be required to adhere to Regulatory Compliance Measure NOI-2, which would ensure that on-site noise sources associated with the proposed project would not exceed any applicable noise standards. Additionally, each of the related projects would be required to comply with the City's noise level standards and include noise reduction measures if standards are exceeded. Therefore, cumulative noise impacts from stationary noise sources would be less than significant with the implementation of Regulatory Compliance Measure NOI-2. **Operational Traffic Source Noise Impacts.** Project-related traffic would result in small (0.1 dBA or less) noise level increases along roadway segments other than Vessels Circle in the vicinity of the project site under the project opening year (2022) condition. The land uses surrounding Vessels Circle are not subject to exterior noise standards. Therefore, none of the roadway segments in the vicinity of the project site would experience a substantial noise level increase greater than the applicable noise thresholds and the proposed project would not have a cumulatively significant traffic noise impact.		
4.12: Population and Housing		
Threshold 4.12.1: Would the project 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.** The proposed project would not 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). The proposed 135 apartment units would generate approximately 408 new residents. The addition of 408 residents represents a population increase of	No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
approximately 0.83 percent over existing conditions as of January 2020. SCAG recently updated its regional forecast in conjunction with the adoption of the 2020–2045 RTP/SCS (Connect SoCal). Growth forecasts included in the adopted Connect SoCal plan indicate that the City's population is projected to grow by 1,700 persons from 2016 to 2045 and the projected population in the City is 51,300 persons in 2045. For all these reasons, the proposed project would not directly induce substantial unplanned population growth. Therefore, the proposed project's direct impact on population growth would be less than significant, and no mitigation is required.		
Threshold 4.12.2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? **No Impact**. In the existing condition, the project site is a paved parking lot and, therefore, does not contain any population or housing. The proposed project would not displace any existing housing or populations on the project site. Therefore, there would be no impact related to the displacement of substantial numbers of existing people or housing. No mitigation is required.	No mitigation is required.	No Impact.
Cumulative Population and Housing Impacts. **Less Than Significant Impact.** The proposed project's contribution to cumulative impacts associated with population, housing, and employment growth would be less than significant.	No mitigation is required.	Less Than Significant Impact.
4.13: Public Services		
Threshold 4.13.1(i): 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	No mitigation is required.	Less than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
performance objectives for fire protection? **Less Than Significant Impact.** The proposed project would incrementally increase demand for fire protection an emergency service calls. OCFA indicated that all OCFA uses a fair share approach to mitigate fire service response impacts and facility/equipment needs. As described in correspondence from OCFA, the Applicant/Developer is requested to enter a Secured Fire Protection Agreement. The Secured Fire Protection Agreement with the OCFA would ensure adequate service to the project site. The OCFA would review and comment on the site plan prior to approval. As part of the review, the OCFA would impose standard conditions of approval, which would ensure all impacts regarding fire protection would be less than significant. Therefore, the proposed project would not require the construction of new fire protection facilities or the upgrade of existing facilities, which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection. Impacts associated with fire protection services would be less than significant.		
Threshold 4.13.1(ii): 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 police protection? **Less Than Significant Impact.** As stated in Section 4.12, Population and Housing, the proposed project would not induce substantial population growth. Although the proposed project may incrementally contribute to the need for one additional police officer to meet future demand, the addition of one new police officer would not necessitate the expansion of the City's	No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
existing police facilities because the new police officer would be accommodated in existing facilities. Therefore, the proposed project would not result in any 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 police protection.		
Threshold 4.13.1(iii): 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 schools? **Less Than Significant Impact.** The proposed project would not 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 schools. Pursuant to the provisions of Government Code Section 65996, a project's impact on school facilities is fully mitigated through payment of the requisite school facility development fees current at the time a building permit is issued. Therefore, with payment of the required fees, as outlined in Regulatory Compliance Measure PS-1, potential impacts to school services and facilities associated with implementation of the proposed project would be less than significant.	No mitigation is required. Although project-related impacts would be less than significant, incorporation of the following Regulatory Compliance Measure would be required to reduce public service impacts. **Regulatory Compliance Measure PS-1:** **Payment of School Fees.** Prior to issuance of any building permits, the Applicant/Developer shall provide proof to the Director of the City of Cypress Community Development Department, or designee, that payment of school fees to the Anaheim Union High School District has been made in compliance with Section 65995 of the California Government Code.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Threshold 4.13.1(iv): 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 parks? **Less Than Significant Impact.** The proposed project would not 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 parks. The incremental increase in demand for park facilities created by the project's proposed 135 residential units would result in limited use of existing recreation facilities in the project vicinity. However, this increased demand would be offset by the payment of park fees required by Regulatory Compliance Measure REC-1. Additionally, the proposed project will include a communal open space area, which will allow for active and passive recreational uses. The inclusion of this open space area would offset some of the demand for parks and recreational facilities associated with the new residents.	No mitigation is required. Refer to Regulatory Compliance Measure REC-1, which is provided in Section 4.14, Recreation, below.	Less Than Significant Impact.
Threshold 4.13.1(v): 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 other public facilities? **Less Than Significant Impact.** The proposed project would not result in substantial adverse physical impacts associated with	No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
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 other public facilities. Demand for library services is typically determined based on the size of the resident population. As stated in Section 4.12, Population and Housing, the proposed project would result in 408 new residents, which is not substantial. As of 2015, the Cypress Branch Library consisted of a 15,000 sf facility with approximately 88,000 books, CDs, and videos. According to the County's service standards of 0.2 sf of library space per capita and 1.5 books per capita, the Cypress Branch Library has the capacity to accommodate a population of 75,000 and enough books to serve a population of 58,667. The City currently exceeds the County's standards for size and number of books since the City's most current population estimate is 49,272. Accordingly, the Cypress Branch Library has sufficient capacity to accommodate the additional population growth associated with the proposed project.		
Cumulative Public Services Impacts. **Less Than Significant Impact.** The project site is a vacant parking lot located in an urban area with existing services provided by public service providers in the vicinity. The cumulative area for public services is listed below for each individual public service provider. As described above, the proposed project's potential impacts to fire services, police protection, school services, and public libraries are limited. These impacts by their very nature are cumulative impacts. Thus, because the project would result in less than significant impacts related to the provision of fire services, police protection, school services, and public libraries, the project	No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
impacts would not be cumulatively considerable.		
4.14: Recreation		
Threshold 4.14.1: 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.** The proposed project would result in an increase in residents in the City, increasing the use of existing neighborhood and regional parks. However, the City will require the Applicant/Developer to pay fees and/or dedicate parkland as identified in Regulatory Compliance Measure REC-1. Therefore, the proposed project would not result in a substantial increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of any such facility would occur or be accelerated, and the proposed project's impact would be less than significant, and no mitigation is required.	No mitigation is required. Although project-related impacts would be less than significant, incorporation of the following Regulatory Compliance Measure would be required to reduce impacts on parks and recreational facilities. **Regulatory Compliance Measure REC-1:** **Dedication of Parkland and/or Payment of Park Fees.** Prior to issuance of any building permits, the Applicant/Developer shall provide proof of compliance with the applicable provisions of Chapter 25 (Subdivisions), Article 6, Park and Recreational Facilities, of the City of Cypress (City) Municipal Code, or other fees as determined by the City, to the Director of the City Community Development Department, or designee.	Less Than Significant Impact.
Threshold 4.14.2: 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.** The proposed project includes the construction of a community open space area that can be used by residents and their guests for active and passive reactional uses. The potential adverse effects associated with the construction and operation of the proposed project's recreational facilities has been considered throughout the analysis in this Environmental Impact Report and mitigated as appropriate. Additionally, the Applicant/Developer is required by the City to pay in-lieu park fees as required by Regulatory Compliance Measure REC-1. Therefore, impacts related to the construction or expansion of recreational facilities included as	No mitigation is required. Refer to Regulatory Compliance Measure REC-1 above.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
part of the proposed project would be less than significant and no mitigation is required**.**		
Cumulative Recreation Impacts. **Less Than Significant Impact.** The proposed project, in conjunction with the related projects in the City, has the potential to increase demand on the City's recreational resources. However, the related projects would also be subject to Municipal Code requirements for the provision of parkland and/or payment of in-lieu fees. Therefore, the cumulative impact of the proposed project and the applicable related projects would be less than significant with respect to recreational facilities.	No mitigation is required. Refer to Regulatory Compliance Measure REC-1 above.	Less Than Significant Impact.
4.15: Transportation		
Threshold 4.15.1: Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities? **Less Than Significant Impact.** The proposed project would be required to comply with General Plan policies addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Additionally, a trip generation analysis was conducted to determine the number of trips that would occur following implementation of the proposed project to evaluate the project's consistency with Orange County CMP requirements and the City's General Plan policies with respect to traffic congestion. In order to determine impacts at intersections associated with implementation of the project (i.e., the existing plus project condition), the proposed project trips were added to existing baseline traffic volumes at the study area intersections. With the addition of the project, all study area intersections would continue to operate at satisfactory LOS during both peak hours. Project impacts are based on conflicts with policies for the LOS significance criteria of the City of Cypress (for Cypress intersections) and/or the City	No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
of Los Alamitos (for joint Cypress and Los Alamitos intersections). Therefore, impacts were determined to be less than significant. No mitigation is required.		
Threshold 4.15.2: Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? **Less Than Significant Impact.** The residential VMT per capita for project baseline (2020) conditions is 18.4. The proposed project's VMT per capita does not exceed the 15.0 percent below VMT per capita for the region threshold recommended in the OPR Technical Advisory. The proposed project is consistent with the City's General Plan land use. Therefore, the vehicle trips associated with a residential use on the project site have already been incorporated into the land use and growth assumptions included in the 2020–2045 RTP/SCS. In addition, the proposed project would be consistent with applicable goals in the 2020–2045 RTP/SCS. Therefore, the proposed project is consistent with the Southern California Association of Governments (SCAG) RTP/SCS. Therefore, a cumulative analysis that makes a comparison of areawide daily total VMT without and with the project was not performed. Impacts were determined to be less than significant and no mitigation is required.	No mitigation is required.	Less Than Significant Impact.
Threshold 4.15.3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? **Less Than Significant Impact.** The proposed project does not propose any major traffic infrastructure improvements. In addition, the project would not include any land uses that would be incompatible with surrounding uses. All new driveways at the project site would be subject to the provisions of the City of Cypress design standards to alleviate design	No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
feature and safety hazards, which would reduce any potential impacts to less than significant levels. Therefore, the proposed project's impacts with respect to design feature hazards would be less than significant. No mitigation is required.		
Threshold 4.15.4: Would the project result in inadequate emergency access? **Less Than Significant Impact.** The project site would be accessed at a new full-access driveway via an extension of Vessels Circle from its current western terminus (extension beyond the knuckle) The project driveway would be designed and improved to conform to the City's standards. In addition, the final site plans would be reviewed by the Orange County Fire Authority to confirm that adequate emergency access would be provided. Therefore, the project's impacts associated with emergency access would be less than significant. No mitigation is required.	No mitigation is required.	Less Than Significant Impact.
Cumulative Transportation Impacts. **Less Than Significant Impact.** With the addition of the proposed project, all study area intersections are forecast to operate at satisfactory LOS during both peak hours under the opening year cumulative 2022 (baseline and plus project) condition. Therefore, a significant project deficiency is not expected to occur at any study area intersection in the opening year cumulative 2022 condition, and the project's potential contribution to cumulative impacts would be less than significant. No mitigation is required.	No mitigation is required.	Less Than Significant Impact.
4.16: Tribal Cultural Resources		
Threshold 4.16.1: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native	No mitigation is required.	No Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
American tribe, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? **No Impact.** According to the City of Cypress General Plan, there are no known archaeological resources located in Cypress. Further, the SCCIC record search results identified no previously recorded cultural resources on or in soils on the project site. Native American consultation was conducted by the City in compliance with AB 52. No requests for AB 52 consultation were received for the proposed project, and no information regarding specific known tribal cultural resources on the project site was provided to the City. Because no tribes requested consultation or provided information regarding tribal cultural resources on the project site, no tribal cultural resources listed or eligible for listing in the California Register of Historical Resources (California Register) or in a local register exist within the project site, and there are no known tribal cultural resources on the project site. The proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource defined as a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is listed or eligible for listing in the California Register or in a local register of historical resources as defined in PRC Section 5020.1(k), and no mitigation is required.		
Threshold 4.16.2: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: A resource determined by the lead	Refer to Regulatory Compliance Measure CUL-1, which is provided above in Section 4.4, Cultural Resources.	No Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. **No Impact.** Native American consultation was conducted in compliance with AB 52. No requests for AB 52 consultation were received for the proposed project, and no information regarding specific known tribal cultural resources on the project site was provided to the City. Although no human remains are known to be on the project site or are anticipated to be discovered during project construction, there is always a possibility of encountering unanticipated human remains. If human remains are Native American in origin, the remains may be considered a tribal cultural resource. Regulatory Compliance Measure CUL-1, provided in Section 4.4, Cultural Resources, requires compliance with the State's Health and Safety Code for the treatment of human remains and includes coordination with the Native American Heritage Commission and a Most Likely Descendant if the remains are determined to be Native American. No mitigation is required.		
Cumulative Tribal Cultural Resources Impacts. **No Impact.** Potential impacts of the proposed project to unknown tribal cultural resources, when combined with the impacts of past, present, and reasonably foreseeable projects in the City of Cypress, could contribute to a cumulatively significant impact due to the overall loss of tribal cultural resources in the region. However, each development proposal received by the City is required to undergo environmental review pursuant to the California Environmental Quality Act (CEQA). As described above, the proposed project is not	No mitigation is required.	No Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
anticipated to affect tribal cultural resources and is not expected to contribute to cumulative impacts on unknown tribal cultural resources.		
4.17: Utilities and Service Systems		
Threshold 4.17.1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? **Water** **Construction.** ***Less Than Significant Impact.*** Short-term water demand may occur during the excavation, grading, and construction process on site. Construction activities would require water primarily for dust and mitigation purposes. Water from the existing potable water lines in the vicinity of the project site would be used. Overall, short-term construction activities would require minimal water and are not expected to have any adverse impacts on the existing water system or available water supplies. The proposed project would not require the construction of new or expanded water conveyance, treatment, or collection facilities with respect to construction activities. Therefore, the impacts on water facilities during construction would be less than significant, and no mitigation is required. **Operation.** ***Less Than Significant Impact.*** The proposed project would include an on-site domestic water distribution system to serve the proposed project's residential uses. The on-site system would be constructed in compliance with the City's building and plumbing codes in the City Municipal Code. The proposed on-site distribution system would connect to the existing GSWC	**Water** No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
water facilities located within Katella Avenue adjacent to the southern border of the project site. Extension of the water infrastructure from the adjacent streets into the project site would be a routine part of the construction process analyzed in this EIR and would not have a material environmental impact. The water facility improvements would be limited to the project site and connection points to the adjacent, existing GSWC facilities. Therefore, the proposed project would not require or result in the construction of new water facilities, or the expansion of existing facilities, which could cause a significant environmental impact, and the impact would be less than significant. No mitigation is required.		
Wastewater **Construction.** ***Less Than Significant Impact.*** No significant increase in wastewater flows is anticipated as a result of construction activities on the project site. Sanitary services during construction would be provided by portable toilet facilities, which transport waste off-site for treatment and disposal. Therefore, during construction, potential impacts to wastewater treatment and wastewater conveyance infrastructure would be less than significant, and no mitigation would be required. **Operation.** ***Less Than Significant Impact.*** The on-site network of private sewer mains and laterals for the proposed project would connect to the sewer mains along Katella Avenue and convey wastewater flows to a nearby OCSD trunk line before eventually discharging into either OCSD's Reclamation Plant No. 1 or Reclamation Plant No. 2. Any sewer improvements associated with the proposed project would be designed and constructed to City and OCSD standards. Regulatory Compliance Measure UTIL-1 requires all sewer improvements to comply with City and	**Wastewater** **Regulatory Compliance Measure UTIL-1:** **Sewer Improvement Standards.** All required sewer improvements shall be designed and constructed to City of Cypress (City) and Orange County Sanitation District (OCSD) standards and shall be approved by the City Engineer prior to development. These improvements may be constructed in a phased sequence depending upon the development process. Facilities shall be dedicated to the City and/or OCSD at the completion of construction.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
OCSD sewage standards. With the implementation of Regulatory Compliance Measure UTIL-1, the proposed project would result in less than significant impacts related to the construction or expansion of wastewater treatment facilities.		
Stormwater/Drainage **Construction.** ***Less Than Significant Impact.*** Grading and construction activities would disturb soils and temporarily modify the stormwater flow patterns on the construction site. As described under the analysis of Thresholds 4.9.1, 4.9.6, 4.9.11, 4.9.12, and 4.9.18 in Section 4.9, Hydrology and Water Quality, the proposed project would be subject to requirements of the Construction General Permit (Regulatory Compliance Measure HYD-1), which requires the preparation of a Storm Water Pollution Prevention Plan (SWPPP) and identification of construction Best Management Practices (BMPs) that must be implemented during project construction to address potential impacts to hydrology and stormwater drainage, including soil erosion, siltation, spills, and runoff. Adherence to the regulatory standards described in Regulatory Compliance Measure HYD-1 in Section 4.9, Hydrology and Water Quality, would ensure that any changes in stormwater drainage from the project site are controlled during construction. Therefore, the proposed project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts, and the impact would be less than significant. No mitigation is required. **Operation.** ***Less Than Significant Impact.*** The proposed project includes the construction of an on-site stormdrain system. Stormwater runoff would be discharged to the Winners Circle stormdrain	**Stormwater/Drainage** Refer to Regulatory Compliance Measure HYD-1 and HYD-3, which are provided in Section 4.9: Hydrology and Water Quality, above.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
system at City required controlled gates. The Water Quality Management Plans prepared for the proposed on-site and off-site improvements associated with the project identified pollutants of concern that may affect the quality of discharges of stormwater from the site. Both WQMPs set forth measures specified in the Countywide WQMP and the National Pollutant Discharge Elimination System (NPDES) Drainage Area Management Plan (DAMP) (2003), the assignment of long-term maintenance responsibilities, and the locations of all structural Best Management Practices, which are intended to provide measures that minimize or eliminate the introduction of pollutants into the stormwater system. Regulatory Compliance Measure HYD-3 in Section 4.9, Hydrology and Water Quality, requires the implementation of BMPs identified in the Water Quality Management Plans and the drainage improvements identified in the Hydrology and Hydraulics Study. With the adherence to Regulatory Compliance Measure HYD-3, the proposed project would result in less than significant impacts related to the construction or expansion of stormwater drainage facilities. No mitigation is required.		
Electric Power **Construction.** ***Less Than Significant Impact.*** Short-term construction activities would be limited to providing power to the staging area and portable construction equipment and would not substantially increase demand for electricity. The heavy equipment used for construction is primarily powered by diesel fuel. Temporary electric power would be provided via existing utility boxes and lines on the project site. Given the limited nature of potential demand for electricity during construction and the availability of existing power lines on the site, there would not be a need to construct new or alter existing electric transmission facilities.	**Electric Power** Refer to Regulatory Compliance Measure AQ-5, which is provided above in Section 4.2, Air Quality.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Impacts to local regional supplies of electricity would be less than significant, and no mitigation is required. **Operation.** ***Less Than Significant Impact.*** Operation of the proposed project would increase on-site electricity demand compared to existing conditions. The project site in its existing condition is a parking lot with existing light poles. Therefore, current demand for electricity on the project site is negligible. As discussed in Section 4.5, Energy, the energy use consumed by the proposed project would be associated with natural gas use, electricity consumption, and fuel used for vehicle trips associated with the project. The estimated potential increase in electricity demand associated with the operation of the proposed project is 379,499 kilowatt-hours (kWh) per year. Total electricity demand in Orange County in 2019 was approximately 19,460 GWh (19,460,000,000 kWh). Therefore, operation of the proposed project would increase the annual electricity consumption in Orange County by less than 0.01 percent. The proposed project would be required to comply with Title 24 energy efficiency measures and sustainability features of the California Building Code as described under Regulatory Compliance Measure AQ-5, in Section 4.2, Air Quality. The supply and distribution network within the area surrounding the project site would remain essentially the same as exists currently, with the exception of on-site improvements to connect to the existing infrastructure. These on-site improvements would provide electrical service to the residential, commercial, and retail uses proposed. The proposed project would not increase electrical demand beyond existing projections from the local electricity provider and the project site is within a developed service area with existing demand. Therefore, the proposed project would not require the construction of any physical improvements related to the		

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
provision of electricity service that would result in significant environmental impacts, and the proposed project's impacts would be less than significant. No mitigation is required.		
Natural Gas **Construction.** ***Less Than Significant Impact.*** Short-term construction activities would not result in demand for natural gas since construction activities/equipment would not require accessing existing adjacent natural gas facilities. Therefore, construction activities would not impact natural gas services, and the proposed project would not require new or physically altered gas transmission facilities. **Operation.** ***Less Than Significant Impact.*** The existing use of the project site as a parking lot does not require the consumption of natural gas. Therefore, operation of the proposed project would increase on-site natural demand compared to existing conditions. As discussed in Section 4.5 Energy, the estimated potential increase in natural gas demand associated with the proposed project is 15,147 therms per year. Total natural gas consumption in Orange County in 2019 was approximately 623 million therms (623,000,000 therms). Therefore, operation of the proposed project would negligibly increase the annual natural gas consumption in Orange County by less than 0.01 percent. The estimated increase in natural gas demand associated with the proposed project would represent a very small fraction of the natural gas demand in Orange County. Additionally, the proposed project would be required to comply with Title 24 requirements as described under Regulatory Compliance Measure AQ-5, in Section 4.2, Air Quality, and would reduce natural gas consumption by incorporating the energy efficiency measures listed above in the design of the	**Natural Gas** Refer to Regulatory Compliance Measure AQ-5, which is provided above in Section 4.2, Air Quality.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
proposed structures. The supply and distribution network within the area surrounding the project site would remain essentially the same as exists today except for standard on-site improvements, and levels of service to off-site users would not be adversely affected. Existing gas transmission and distribution services maintained by SoCalGas would provide natural gas service to the proposed project. The proposed project would not increase natural gas demand beyond existing projections from the local natural gas provider and the project site is within a developed service area with existing demand. Therefore, the proposed project would not require the construction of any physical improvements related to the provision of natural gas service that would result in significant environmental impacts and the proposed project's potential impacts would be less than significant. No mitigation would be required.		
Telecommunication Facilities **Less Than Significant Impact.** Telephone, cable, and internet service lines in the vicinity will be extended into the project site. Internal to the project site, the project Applicant/Developer will be responsible for constructing adequate telecommunication facility extensions to the various structures of the proposed project. The construction and expansion of these facilities would occur on site during the site preparation and earthwork phase and are not expected to impact any telephone, cable, or internet services off-site that serve the surrounding areas. Additionally, telecommunication facilities are generally installed concurrently with utility expansions, and impacts associated with the expansion of telecommunications facilities are already considered in the air quality, noise, and construction traffic analyses. Therefore, the project impacts associated with the relocation or construction of new or expanded telecommunication facilities would be less than significant. No	**Telecommunication Facilities** No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
mitigation is required.		
Threshold 4.17.2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? **Less Than Significant Impact.** The Golden State Water Company would provide water services to the project site and would connect the proposed project to the existing 12-inch water main along Katella Avenue and a 10-inch water main along Walker Street. The proposed residential units would result in a minor increase in water demand. However, as discussed in Section 4.12, Population and Housing, the proposed project would not induce substantial population growth. Additionally, the proposed project would be required to use reclaimed water and to comply with all State laws for water conservation measures, including the use of low-flow fixtures. The total water demand generated by the proposed project as estimated by the CalEEMod outputs would be approximately 39,290 gallons per day (gpd) or 44 afy. The estimated increase in water demand associated with the proposed project would represent 0.2 percent of the West Orange System's current annual water demand, based on the system's projected demand of 16,722 afy in 2020. As such, the proposed project would not necessitate new or expanded water entitlements, and GSWC would be able to accommodate the increased demand for potable water. Therefore, impacts to water supplies would be less than significant. No mitigation is required.	No mitigation is required.	Less Than Significant Impact.
Threshold 4.17.3: Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's	No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
existing commitments? **Less Than Significant Impact.** The proposed project is anticipated to generate 39,290 gpd of wastewater. However, the 39,290 gpd of wastewater generated by the proposed project would only represent a small fraction of the primary daily treatment capacity of Reclamation Plant No. 1 and Reclamation Plant No. 2 0.18 percent and 0.23 percent, respectively). Additionally, through its Capital Improvement Program, the OCSD strives to continue maintaining its facilities at optimal levels by planning, designing, and preparing for future demand by developing Facilities and Biosolids Master Plans that address 20-year planning horizons. Through these long-range planning activities, the OCSD would be able to accommodate the growth in demand for wastewater treatment generated by the proposed project and other projects in its service area. Therefore, the proposed project would not result in a significant contribution to the capacity of Reclamation Plant No. 1 or Reclamation Plant No. 2. Additionally, fees required by the OCSD would sufficiently offset potential impacts generated by the proposed project. Therefore, the proposed project would result in less than significant impacts related to the wastewater treatment capacity and no mitigation measures are required.		
Threshold 4.17.4: Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? **Less Than Significant Impact.** Based on the CalEEMod outputs, the proposed project is estimated to generate 85.16 pounds of solid waste per day during operation. The incremental increase of solid waste generated by the proposed project would constitute 0.004 percent of the remaining daily available capacity (1,000 tpd) at the Olinda Alpha Landfill. Therefore, solid waste generated by the proposed project would not cause	No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
the capacity at the Olinda Alpha Landfill to be exceeded. As such, the proposed project would be served by a landfill with sufficient permitted capacity to accommodate its solid waste disposal needs. Therefore, the proposed project would result in less than significant impacts related to solid waste and landfill facilities, and no mitigation is required.		
Threshold 4.17.5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste? **Less Than Significant Impact.** Solid waste practices in California are governed by multiple federal, State, and local agencies that enforce legislation and regulations ensuring that landfill operations minimize impacts to public health and safety and the environment. The proposed project would comply with the City's Construction and Demolition Ordinance (Regulatory Compliance Measure UTIL-2). The Applicant/Developer would also be required to submit a Materials Questionnaire should the contractor haul away its own demolition waste. Additionally, the proposed project would comply with AB 341, which went into effect on July 1, 2012. AB 341 requires businesses and multifamily residential dwelling units of five units or more that generate four or more cubic yards of commercial solid waste per week to implement recycling programs. With adherence to Regulatory Compliance Measure UTIL-2, the proposed project would comply with federal, State, and local statutes and regulations related to solid waste. Therefore, impacts would be less than significant, and no mitigation is required.	**Regulatory Compliance Measure UTIL-2:** **Construction and Demolition Ordinance**. The Construction Contractor shall comply with the provisions of City Ordinance No. 1166 and the 2016 California Green Building Standards Code, which would reduce construction and demolition waste. Ordinance No. 1166 is codified in Article VIII, Materials Questionnaire for Certain Construction and Demolition Projects within the City of Cypress in the City of Cypress Municipal Code.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Cumulative Utilities and Service Systems Impacts. **Wastewater** **Less Than Significant Impact.** The geographic area for the cumulative analysis for wastewater treatment is defined as the City and the OCSD service area. The wastewater capacities of OCSD Reclamation Plant Nos. 1 and 2 are designed to accommodate the growth forecast within the OCSD service area and development outlined in the General Plans for jurisdictions within its service area. Because OCSD prepares for future demand over long planning horizons, adequate facilities would be planned for to account for population growth. Therefore, the cumulative population and housing growth from the proposed project and the related projects would be planned for and the OCSD would have adequate capacity for the increased wastewater treatment demand associated with implementation of the proposed project and the related projects within its service area. For these reasons, the proposed project and related projects would not result in a cumulatively significant impact to wastewater generation. **Potable Water** **Less Than Significant Impact.** The geographic area for the cumulative analysis of water infrastructure is the West Orange service area of GSWC. The projections for potable water demand in the GSWC West Orange service area are based on regional population and economic growth forecasts, and account for potential future development within its service area, including the additional demand for water generated by the related projects. According to the GSWC 2015 UWMP, by 2035, the West Orange service area's population is estimated to increase at a 0.3 percent growth rate per year, and households and employment in the service area are both expected to grow	No mitigation is required.	Less Than Significant Impact.

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
at an annual growth rate of 0.2 percent over the same period. For this reason, the projected demand for water supply in the GSWC West Orange service area is inherently cumulative in nature. As discussed previously, population growth generated by the proposed project in conjunction with related projects would not result in substantial unplanned population growth. As such, GSWC would update its population projections and expected water demand accordingly to accommodate population and housing growth. Therefore, GSWC would have adequate capacity for the increased demand for potable water associated with the development of the proposed project and the related projects within its service area. Therefore, the proposed project and the related projects would not have a cumulatively significant impact on water supply or facilities. **Electricity** **Less Than Significant Impact.** The geographic area for the cumulative analysis of impacts to the provision of electricity is the service territory of SCE. SCE's service area covers approximately 50,000 sq mi in Southern and Central California, with the provision of energy service to approximately 15 million across the service territory. The projections of statewide electricity supply capacity demand rates are cumulative in nature. They are based on population and economic growth in addition to such physical variables as average temperature and water supplies (important to hydroelectric generation) in a given year. The total annual electricity consumption in the SCE service area in 2017 was 84,291.6 GWh and by 2030, consumption is anticipated to increase by approximately 12,000 GWh for the low-demand scenario and by 22,000 GWh for the high-demand scenario. While this forecast represents a large increase in electricity consumption, the proposed project's percent of cumulative consumption of electricity in the SCE service area would be negligible. Therefore, any increase in		

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
electrical demand resulting from the proposed project would be incremental compared to an increase in regional demand. Sufficient electricity supplies and infrastructure capacity are available, or have already been planned, to serve past, present, and reasonably foreseeable projects. **Natural Gas** **Less Than Significant Impact.** The geographic area for the cumulative analysis of impacts to the provision of natural gas is the service territory for SoCalGas. SoCalGas provides natural gas to approximately 21.8 million people in a 24,000 sq mi service area throughout Central and Southern California, from Visalia to the Mexican border. Total natural gas consumption in the SoCalGas service area in 2018 was 5,156.1 million therms. Between 2018 and 2035, total natural gas consumption in the SoCalGas service area is forecast to remain steady for the low- and mid-demand scenarios and to increase by approximately 650 million therms in the high-demand scenario due to intense energy efficiency efforts. The proposed project's percent of cumulative consumption of natural gas in the SoCalGas service area would be negligible. Therefore, any increase in natural gas demand resulting from the proposed project would be incremental compared to an increase in regional demand. Furthermore, like the proposed project, all future projects would be subject to Title 24 requirements and would be evaluated on a case-by-case basis to determine the need for specific distribution improvements. Therefore, the proposed project's contribution to natural gas impacts would not be cumulatively considerable, and no mitigation is required. **Solid Waste** **Less Than Significant Impact.** The geographic area for the cumulative analysis of solid waste infrastructure is OCWR's service territory. Development associated with the proposed		

Table 1.A: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
project would contribute to an increased demand for landfill capacity for solid waste. As stated previously, the landfill serving the project site would be the Olinda Alpha Landfill, which is not scheduled to close until 2030. As discussed under Threshold 4.17.4 above, the proposed project would only constitute approximately 0.004 percent of the remaining average daily capacity at the Olinda Alpha Landfill. Additionally the Olinda Alpha Landfill is currently only receiving 87.5 percent of the 8,000 tons it is permitted to receive. Therefore, the Olinda Alpha Landfill has sufficient permitted capacity to provide adequate capacity for Orange County's solid waste needs and with compliance with federal, State, and local statues and regulations related to solid waste, which require reductions in solid waste generation. **Telecommunication Facilities** **Less Than Significant Impact.** The geographic area for the cumulative analysis of impacts to the provision of telecommunication facilities is the City. Telephone, cable, and internet services are provided to residents through private providers of these services. The construction and expansion of telecommunication facilities for the proposed project would occur on site and is not expected to impact any telephone, cable, or internet services offsite that serve the surrounding areas. Likewise, construction and expansion of telecommunication facilities would generally occur on site to extend through proposed related developments. Therefore, cumulative impacts associated with the relocation or construction of new or expanded telecommunication facilities would be less than significant. No mitigation is required.		

2.0 INTRODUCTION

This Environmental Impact Report (EIR) has been prepared to evaluate environmental impacts associated with the proposed Cypress Town Center Project (proposed project) in Cypress, California. The City of Cypress (City) is the "public agency which has the principal responsibility for carrying out or approving the project"[1] and, as such, is the "Lead Agency" for the proposed project under the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.). CEQA requires the Lead Agency to consider the information contained in the EIR prior to taking any discretionary action on the proposed project. This EIR is intended to serve as an informational document to be considered by the City and any Responsible Agencies during deliberations on the proposed project. CEQA Section 21069 defines a "Responsible Agency" as a public agency other than the Lead Agency that has responsibility for carrying out or approving a project. The approvals and permits associated with the proposed project are described in Chapter 3.0, Project Description.

The City, as Lead Agency, determined that the proposed project may have a significant effect on the environment and that an EIR would be required to more fully evaluate potential adverse environmental impacts that may result from development of the proposed project. As a result, this EIR has been prepared in accordance with CEQA and the *State CEQA Guidelines* (California Code of Regulations [CCR], Title 14, Section 15000 et seq.). This EIR also complies with the procedures established by the City for the implementation of CEQA.

Questions regarding the preparation of this document and City review of the proposed project should be referred to the following person:

Alicia Velasco, Planning Director
City of Cypress Community Development Department
5275 Orange Avenue
Cypress, CA 90630
Phone: (714) 229-6720
Email: avelasco@cypressca.org

2.1 PURPOSE AND TYPE OF EIR/USES OF THE EIR

This EIR has been prepared to evaluate potential environmental impacts that could result from implementation of the proposed project. As the Lead Agency, the City has the principal responsibility for approving the proposed project. In that capacity, the City has decided to prepare this EIR and, after the public review process, will decide whether to certify the Final EIR.

The City and any Responsible Agencies have the authority to make decisions on discretionary actions relating to development of the proposed project. As stated previously, this EIR is intended to serve as an informational document to be considered by the City and Responsible Agencies during deliberations on the proposed project. This EIR evaluates a reasonable worst-case scenario of potential impacts associated with the proposed project and identifies feasible mitigation and alternatives for any identified potentially significant impacts.

[1] As defined in Public Resources Code Section 21067.

This EIR will serve as a project EIR pursuant to *State CEQA Guidelines* Section 15161. According to Section 15161 of the *State CEQA Guidelines*, a project EIR is appropriate for specific development projects and should examine the environmental impacts that could result from all phases of the project, including planning, construction, and operation.

As the Lead Agency for the proposed project under CEQA, the City must consider the information contained in the Final EIR prior to taking any discretionary action with respect to the proposed project. This EIR provides information to the Lead Agency and other public agencies, the general public, and decision-makers regarding the potential environmental impacts from construction and operation of the proposed project. The purpose of the public review of this EIR is to evaluate the adequacy of the environmental analysis in terms of compliance with CEQA. *State CEQA Guidelines* Section 15151 states the following regarding the standards from which adequacy is judged:

> "An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among experts. The courts have not looked for perfection but for adequacy, completeness, and a good faith effort at full disclosure."

Public Resources Code Section 21002.1(a) states:

> "The purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided."

An EIR is the most comprehensive form of environmental documentation identified in CEQA and the *State CEQA Guidelines* and provides the information needed to assess the environmental consequences of a proposed project. EIRs are intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts.

2.2 PUBLIC REVIEW PROCESS

In compliance with CEQA and the *State CEQA Guidelines,* the City has taken steps to promote opportunities for the public and other public agencies to participate in the environmental review process. The City conducted the scoping process, issued a Notice of Preparation (NOP), and determined that an EIR was required to evaluate the potentially significant environmental effects of the proposed project and related actions. Additionally, a public scoping session was conducted, as discussed below.

2.2.1 Notice of Preparation/Scoping Meeting

On September 25, 2020, an NOP for the proposed project was distributed by the City via the State Clearinghouse (SCH) and was circulated for review from September 25 to October 26, 2020. The

SCH issued a project number for this EIR (SCH No. 2020099025). In accordance with *State CEQA Guidelines* Section 15082, the NOP was circulated to the agencies and individuals identified in Appendix A, and was posted at the Orange County Clerk's Office for a period of 30 days, during which time written comments were solicited pertaining to environmental issues/topics that this EIR should evaluate. The NOP was also made available for public review at the City's Planning Division and on the City's website during the review period. The City held a virtual public scoping meeting on Thursday, October 8, 2020, to present the proposed project and to solicit input from interested parties regarding environmental issues that should be addressed in this EIR.

Responses to the NOP were received from the following agencies:

- City of Los Alamitos
- California Department of Transportation (Caltrans District 12)
- Native American Heritage Commission (NAHC)
- Orange County Transportation Authority (OCTA)

2.2.2 Areas of Controversy and Scoping Comments

Issues and concerns raised in response to the NOP or at the scoping meeting included:

- **Traffic:** Concerns about additional traffic in the Cities of Cypress and Los Alamitos, specifically on Katella Avenue and Cerritos Avenue. Questions whether the project would include any new bus stops or bus shelters. Concerns about the project's proximity to the Amazon Facility Project in regards to direct or indirect increase of vehicle miles traveled (VMT) on State Highway ramps. Request to consider 95 percent queues on the off-ramp or left-turn lane to on-ramp at the ramp intersection of Route 22 to determine if there is an overflow to the adjacent lane that has potential safety concerns. Requests that the EIR include discussion relating to the City's multimodal mobility strategies, such as transit and connectivity. Request to include designated areas for freight delivery, adequate wayfinding signage for transits stops, and complete streets.

- **Fire Prevention**: Request to consider fire prevention in the Environmental Analysis categories, under the Potential Environmental Impact section.

- **Parking:** Concerns about whether the project includes affordable housing and if it will require less parking because of affordable housing.

- **Noise:** Question whether the proposed project has been submitted to the Airport Land Use Commission, since the project is located near a military base.

- **Cumulative Impacts:** Concerns that several development projects would not be included in a cumulative impact analysis. Concerns that the project and others constitute a piecemeal of all the projects and does not fully reflect vehicle impacts on street infrastructure and traffic.

This is not an exhaustive list of areas of controversy, but rather key issues that were raised during the scoping process. This EIR addresses each of these areas of concern or controversy in detail, examines project-related and cumulative environmental impacts, identifies significant adverse

environmental impacts, and proposes mitigation measures and/or alternatives designed to reduce or eliminate potentially significant impacts. Appendix A to this EIR includes the NOP and copies of written comments received in response to the NOP. Appendix A also includes a comment summary.

2.2.3 EIR Public Review Period

This EIR is being distributed to numerous public agencies and other interested parties for review and comment. This EIR is also available at the following locations and on the City's website for the proposed project (https://www.cypressca.org/government/departments/community-development/planning-division/development-information). Additionally, a copy of this EIR will be available for public review at the Cypress Civic Center by appointment only. Please contact Kirsten Graham at (714) 229-6748 to schedule an appointment.

All comments received from agencies and individuals on this EIR will be accepted during the public comment period, which will not be less than 45 days, in compliance with CEQA and *the State CEQA Guidelines*. All comments on this EIR should be sent to the following City contact person:

Alicia Velasco, Planning Director
City of Cypress Community Development Department
5275 Orange Avenue
Cypress, CA 90630
Email: avelasco@cypressca.org

Following the close of the public comment period, the City will prepare written responses to all written comments received during the public comment period and will compile these comments and responses, together with any text changes to this EIR, into a Final EIR that includes all of the information required pursuant to *State CEQA Guidelines* Section 15132. The Final EIR will be provided to all public agencies that submitted comments on this EIR at least 10 days prior to certification of the Final EIR. The Final EIR shall consist of the EIR or a revision of the draft; comments and recommendations received on the EIR either verbatim or in summary; a list of persons, organizations, and public agencies commenting on the EIR; the response of the City to significant environmental points raised in the review and consultation process and in comments submitted on the Draft EIR; and any other information added by the City.

The City will make findings regarding the extent and nature of the impacts as presented in the Final EIR. The Final EIR must be certified as complete by the City Council prior to making a decision on the requested entitlements for the proposed project. Public input is encouraged at all public hearings regarding the proposed project.

2.3 SCOPE OF THIS EIR

As required by *State CEQA Guidelines* Section 15128, this EIR must identify the effects of the proposed project that are determined to be significant. Environmental topics addressed in this EIR include: Aesthetics; Air Quality; Biological Resources; Cultural Resources; Energy, Geology and Soils and Paleontological Resources; Greenhouse Gas Emissions; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use and Planning; Noise; Population and Housing; Public

Services; Recreation; Transportation and Traffic; Tribal Cultural Resources; and Utilities and Service Systems.

2.4 FORMAT OF THE EIR

This EIR contains the information and analysis required by CEQA and the *State CEQA Guidelines,* including Section 15122–15131, and is generally organized as follows:

- **Chapter 1.0: Executive Summary.** Chapter 1.0 contains the Executive Summary of this EIR, which lists all significant project impacts, feasible mitigation measures that have been recommended to reduce any significant impacts of the proposed project, and the level of significance of each impact following feasible mitigation. The summary is presented in a table format.

- **Chapter 2.0: Introduction.** Chapter 2.0 contains a discussion of the purpose and intended use of this EIR.

- **Chapter 3.0: Project Description.** Chapter 3.0 includes a discussion of the proposed project's geographical setting, the project site's previous uses and approvals, and the proposed project's objectives, characteristics, components, and construction phases, as well as the anticipated discretionary and ministerial permits and approvals for the proposed project.

- **Chapter 4.0: Environmental Impact Analysis.** Chapter 4.0 includes an analysis of the proposed project's environmental impacts. It is organized into the following topical sections: aesthetics, 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, noise, population and housing, public services, recreation, transportation, tribal cultural resources and utilities and service systems. The environmental setting discussions describe the "existing conditions" of the environment on the project site and in the vicinity of the site as they pertain to the environmental issues being analyzed (*State CEQA Guidelines §*15125).

  The impact discussions identify and focus on the potentially significant environmental effects of the proposed project. The direct and indirect effects of the proposed project on the environment are identified and described, giving due consideration to both the short-term and long-term effects, as necessary (*State CEQA Guidelines* Section 15126.2[a]).

  Chapter 4.0 also includes within the analysis of each environmental topic a discussion of the cumulative effects of the proposed project when considered in combination with other projects causing related impacts, as required by *State CEQA Guidelines* Section 15130*.* Cumulative impacts are based on the build out of the proposed project and the known relevant approved and proposed projects in the surrounding area.

  The discussions of mitigation measures identify and describe feasible measures that could minimize or lessen potentially significant impacts for each significant environmental effect identified in this EIR (*State CEQA Guidelines* Section 15126[e]). The levels of significance before

and after mitigation are provided. Significant unavoidable adverse effects are identified where mitigation is not expected to reduce the effects to less than significant levels.

- **Chapter 5.0: Alternatives to the Proposed Project.** In accordance with CEQA, the alternatives discussion in Chapter 5.0 describes a reasonable range of alternatives that could feasibly attain the basic objectives of the proposed project and are capable of eliminating or substantially reducing any of the proposed project's significant adverse environmental effects or reducing them to a less than significant level. The alternatives analyzed in Chapter 5.0 include two alternatives: (1) the No Project Alternative, and (2) the Reduced Project Alternative.

- **Chapter 6.0: Other CEQA Considerations.** Chapter 6.0 contains discussions on the following topics as required by *State CEQA Guidelines* Section 15126: (1) growth-inducing impacts of the proposed project; and (2) whether there are any significant irreversible environmental changes caused by the proposed project, adverse environmental impacts associated with the proposed project for which either no mitigation or only partial mitigation is feasible.

- **Chapter 7.0: Mitigation Monitoring and Reporting Program.** *State CEQA Guidelines* Section 15091(d) requires that public agencies adopt a mitigation monitoring and reporting program for any changes that it has either required in a project or made a condition of approval to avoid or substantially lessen significant environmental effects. Chapter 7.0 provides a list of all proposed project mitigation measures, defines the parties responsible for implementation and review, and identifies the timing for implementation of each mitigation measure.

- **Chapter 8.0: List of Preparers.** Chapter 8.0 provides the organizations and persons contacted during preparation of this EIR, the EIR preparers and technical report authors, and other experts involved in the preparation of this EIR.

- **Chapter 9.0: References.** Chapter 9.0 provides the references used in this EIR.

2.5 INCORPORATION BY REFERENCE

An EIR may incorporate by reference all or portions of another document that is a matter of public record or is generally available to the public, consistent with *State CEQA Guidelines* Section 15150. Informational details from the documents that have been incorporated by reference are summarized in the appropriate sections of this EIR, along with descriptions regarding how the public may review these documents. All documents are available for review at the City of Cypress, Community Development Department. These documents include:

- City of Cypress General Plan (available online at: https://www.cypressca.org/government/departments/community-development/planning-division/city-plans)

- City of Cypress Municipal Code (available online at: https://qcode.us/codes/cypress/)

- Cypress Town Center and Commons Specific Plan 2.0 (available online at: https://www.cypressca.org/home/showpublisheddocument?id=9683)

3.0 PROJECT DESCRIPTION

This section describes the proposed Cypress Town Center Project (proposed project) evaluated in this Environmental Impact Report (EIR). A description of the proposed project's location, characteristics, objectives, and required approvals is provided below.

3.1 PROJECT OVERVIEW

Melia Homes (the Applicant/Developer) proposes the development of multi-family residential homes on an approximately 7-acre site (project site) located at the southeast portion of the existing Los Alamitos Race Course parking lot in the City of Cypress (City). The multi-family residential development would consist of 135 dwelling units. The proposed development would include two types of multi-family units: 56 two-story condominiums in four buildings arranged around motor courts in the center portion of the project site; and 79 three-story row townhomes located throughout the outer portions of the project site. The layout of the proposed project is a paseo-style community with a central large open space area that would include a pool and landscaped areas for other active and passive recreation uses. Access to the project site would be provided via a driveway from a proposed extension of Vessels Circle to the north of the project site.

3.2 PROJECT LOCATION AND EXISTING ENVIRONMENTAL SETTING

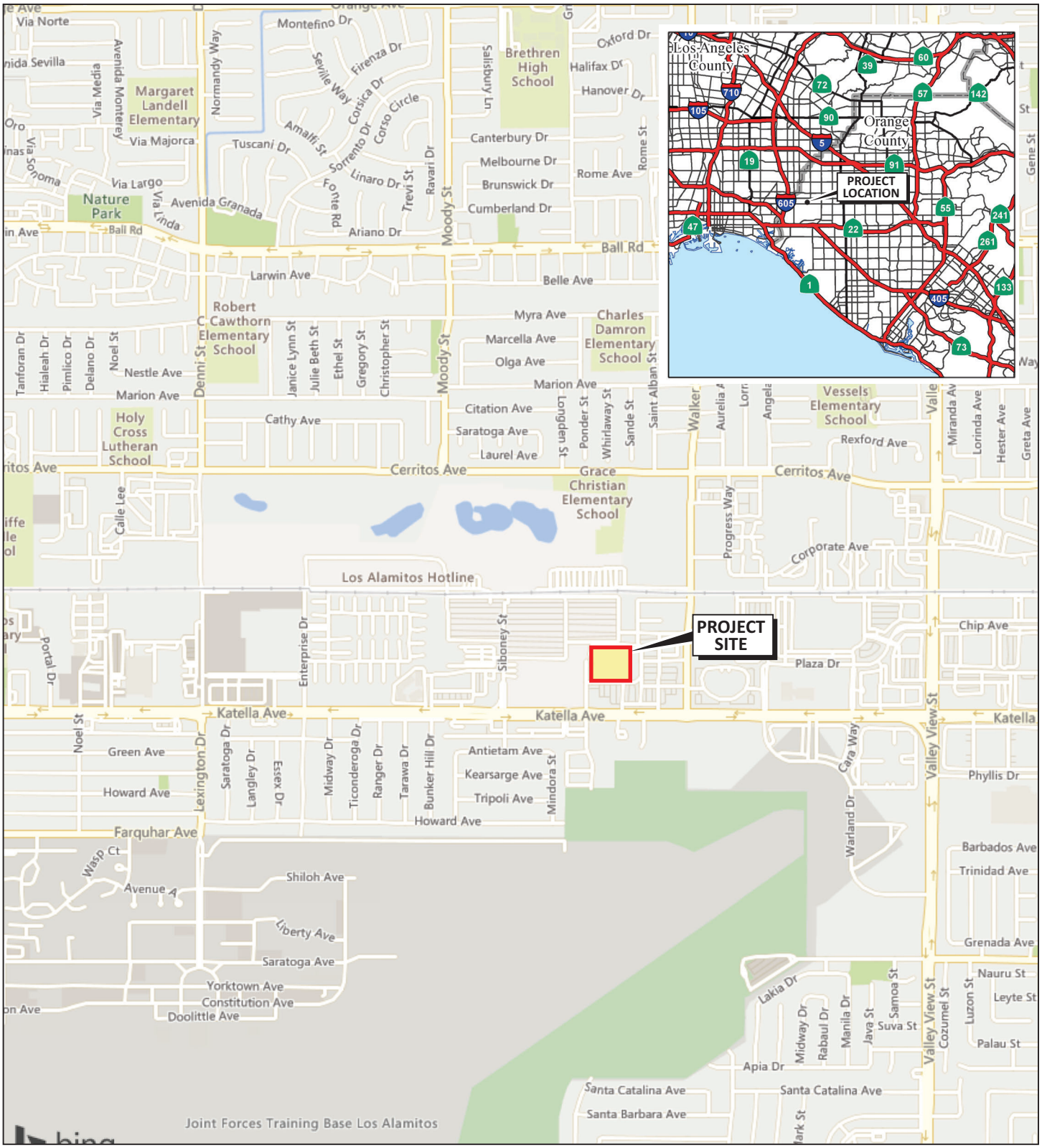
3.2.1 Regional Location

The project site is located in the southern portion of the City of Cypress, California, approximately 1 mile northwest of the City of Garden Grove and approximately 800 feet (ft) north of the City of Los Alamitos. The Los Alamitos Race Course is located north of the project site. As illustrated by Figure 3.1, Regional and Project Location, the project site is approximately 2 miles east of the San Gabriel River Freeway (Interstate 605) and approximately 3 miles north of the Garden Grove Freeway (State Route 22) and the San Diego Freeway (Interstate 405).

3.2.2 Existing Project Site Conditions

The project site is located south of Vessels Circle and west of Walker Street on the southeast portion of the existing Los Alamitos Race Course parking lot (refer to Figure 3.2, Project Vicinity Land Uses). The project site consists of an approximately 7-acre portion of two larger properties (Assessor's Parcel Numbers [APNs] 241-091-36 and 241-091-40) (refer to Figure 3.3, Project Parcels). Additionally, off-site improvements are proposed on adjacent parcels (APNs 241-081-23, 241-091-24, and APN 241-091-40). Figure 3.4, Existing Conditions, shows the existing conditions on the project site, which is a paved parking lot. The project site is relatively flat and devoid of any vegetation except for the 60-ft wide strip of ornamental trees, palm trees, and grass/shrubs on the north portion of the project site. The existing parking lot currently includes asphalt paving and six overhead light poles. In the existing condition, direct access is only provided to the project site from Costco Way near the southeast corner of the project site.

This page intentionally left blank



LSA

FIGURE 3.1

N

0 750 1500

FEET

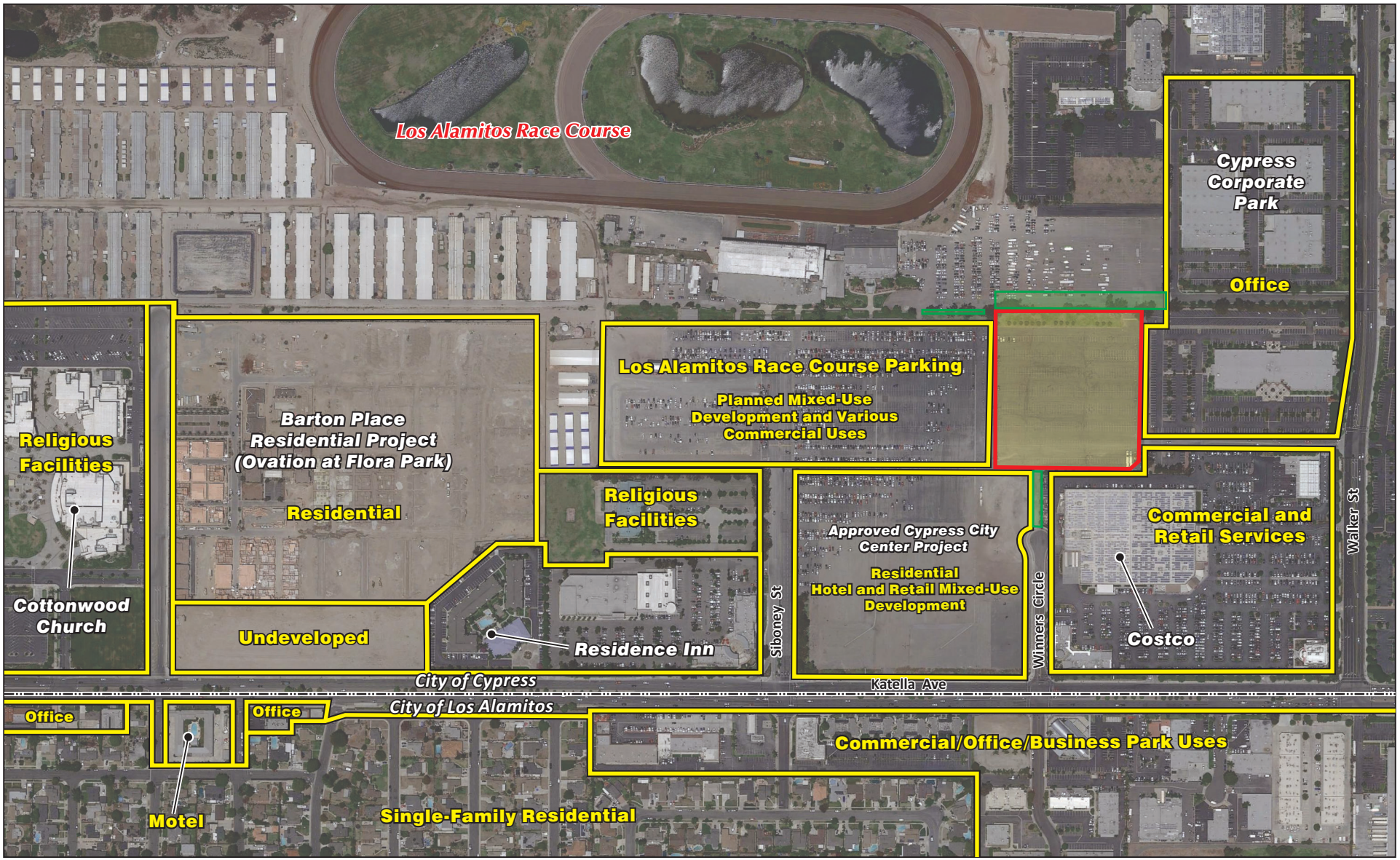
SOURCE: Bing Maps

Cypress Town Center

Regional and Project Location

I:\MLA2002\G\Regional Project Location.cdr (8/21/2020)

This page intentionally left blank



LSA

FIGURE 3.2

LEGEND

- City Boundary
- Project Site
- Off-Site Improvements

N

0 250 500
FEET

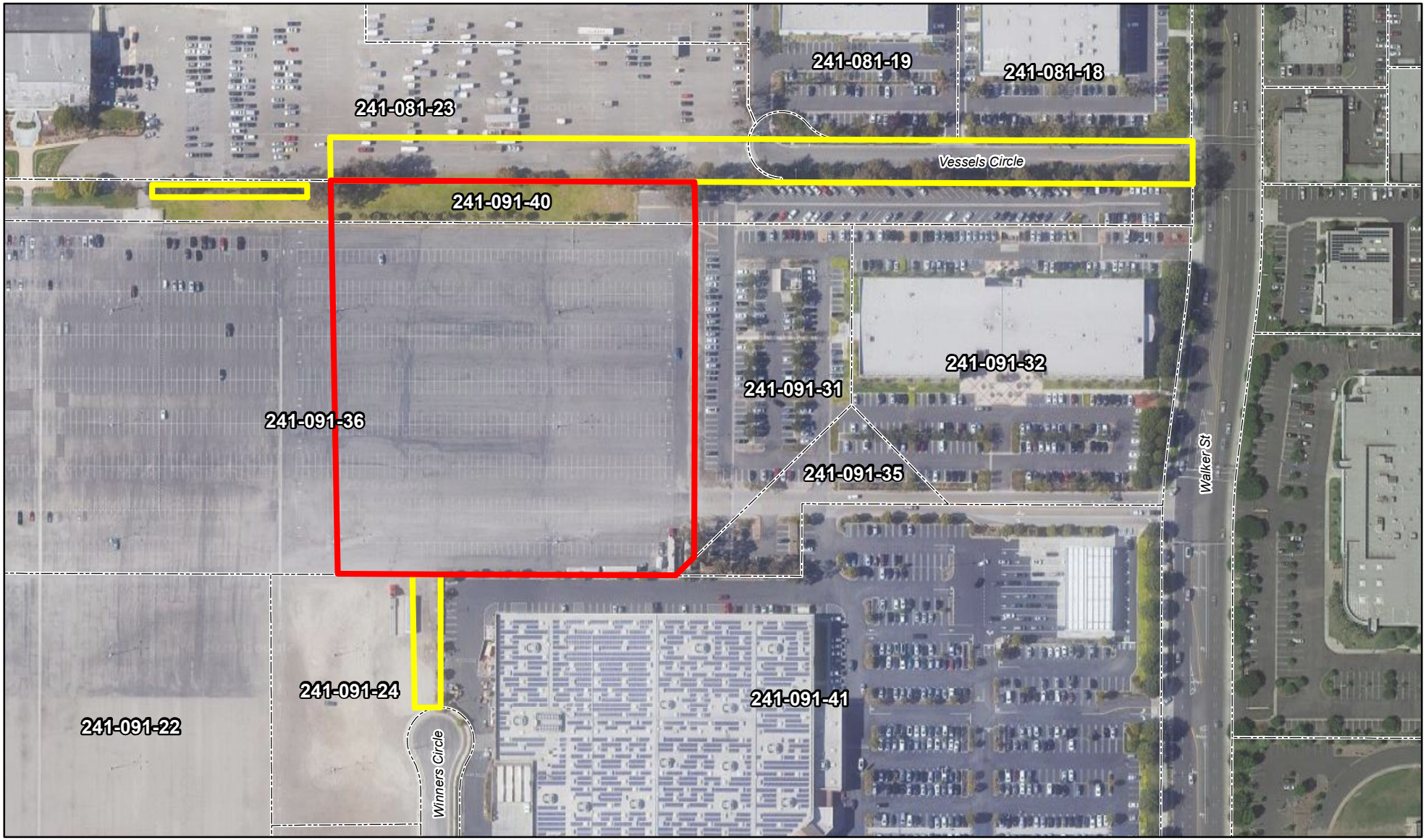
SOURCE: Google Earth

Cypress Town Center

Project Vicinity Land Uses

I:\MLA2002\G\Vicinity Land Uses.cdr (8/28/2020)

This page intentionally left blank



LSA

LEGEND

Project Site

Off-Site Improvements

Parcel Boundary

0 100 200
FEET

FIGURE 3.3

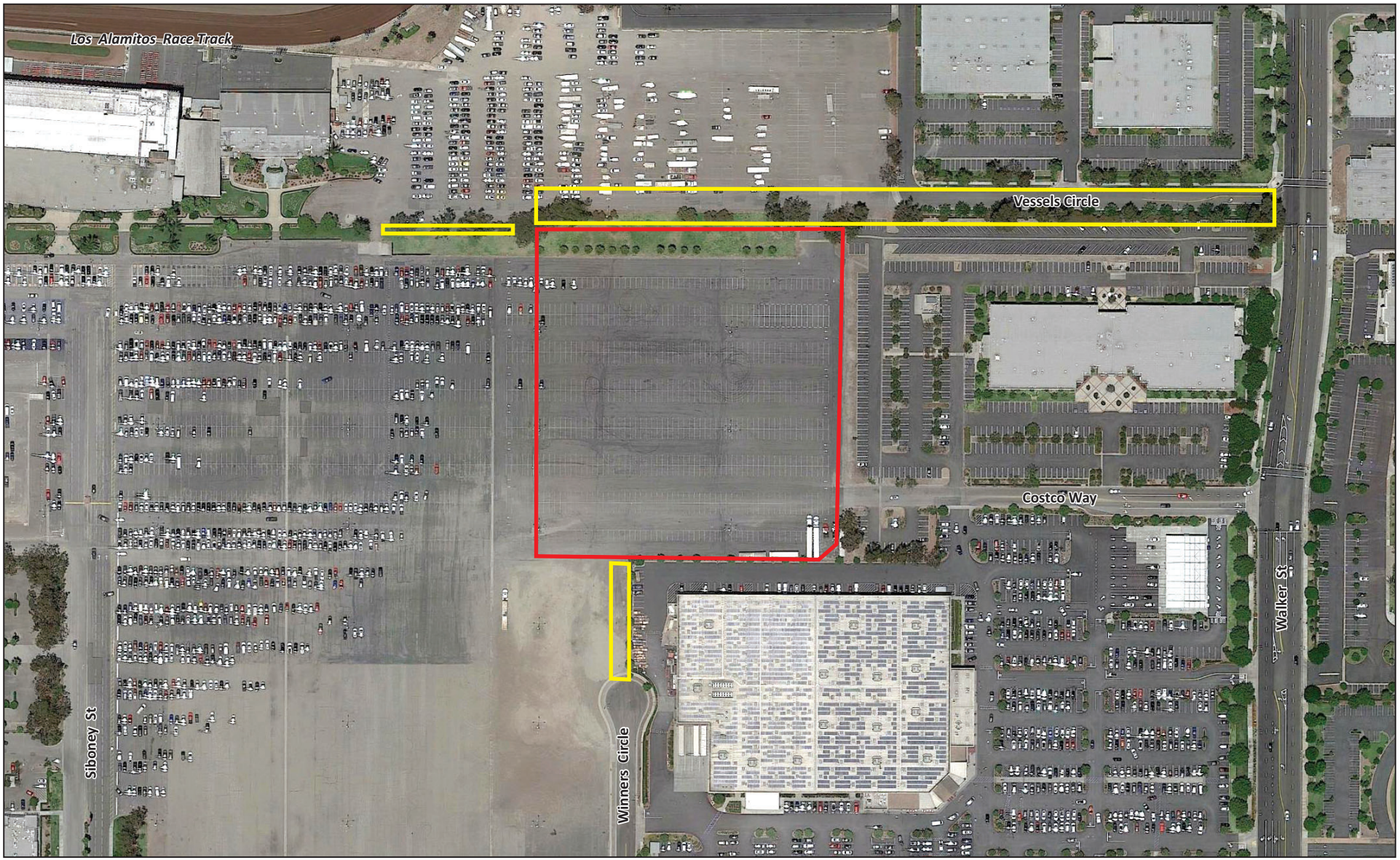
Cypress Town Center

Project Parcels

SOURCE: Google Maps (2019); COunty of Orange (2013)

I:\MLA2002\GIS\MXD\ProjectParcels.mxd (9/10/2020)

This page intentionally left blank



LSA

LEGEND

- Project Site
- Off-Site Improvements

N

0 120 240
FEET

SOURCE: Google Earth

FIGURE 3.4

Cypress Town Center
Existing Conditions

I:\CCP1603.08\G\Existing Conditions.cdr (1/7/2021)

This page intentionally left blank

Temporary existing uses on the project site include vehicle parking during events at the nearby Los Alamitos Race Course. The existing parking lot rarely reaches capacity, except during the Wiener Nationals dog-racing event, which takes place annually in July. On February 24, 2020, the Cypress City Council approved a parking requirement reduction for the Los Alamitos Race Course (Amendment to Conditional Use Permit No. 2013-08, Design Review Committee Permit Nos. 2013-03 and 2014-02, and Site Plan Review No. 3161). This action eliminated the project site from the required parking for the Los Alamitos Race Course.

3.2.3 Surrounding Land Uses

As shown in Figure 3.2, the Los Alamitos Race Course is located north of the project site, and office uses are located northeast and east of the project site. A mixed-use development and various commercial, office, and business park uses are planned for development on the parking lots located south and southeast of the project site. As shown in Figure 3.2, the project site is bounded by the following uses in its immediate vicinity:

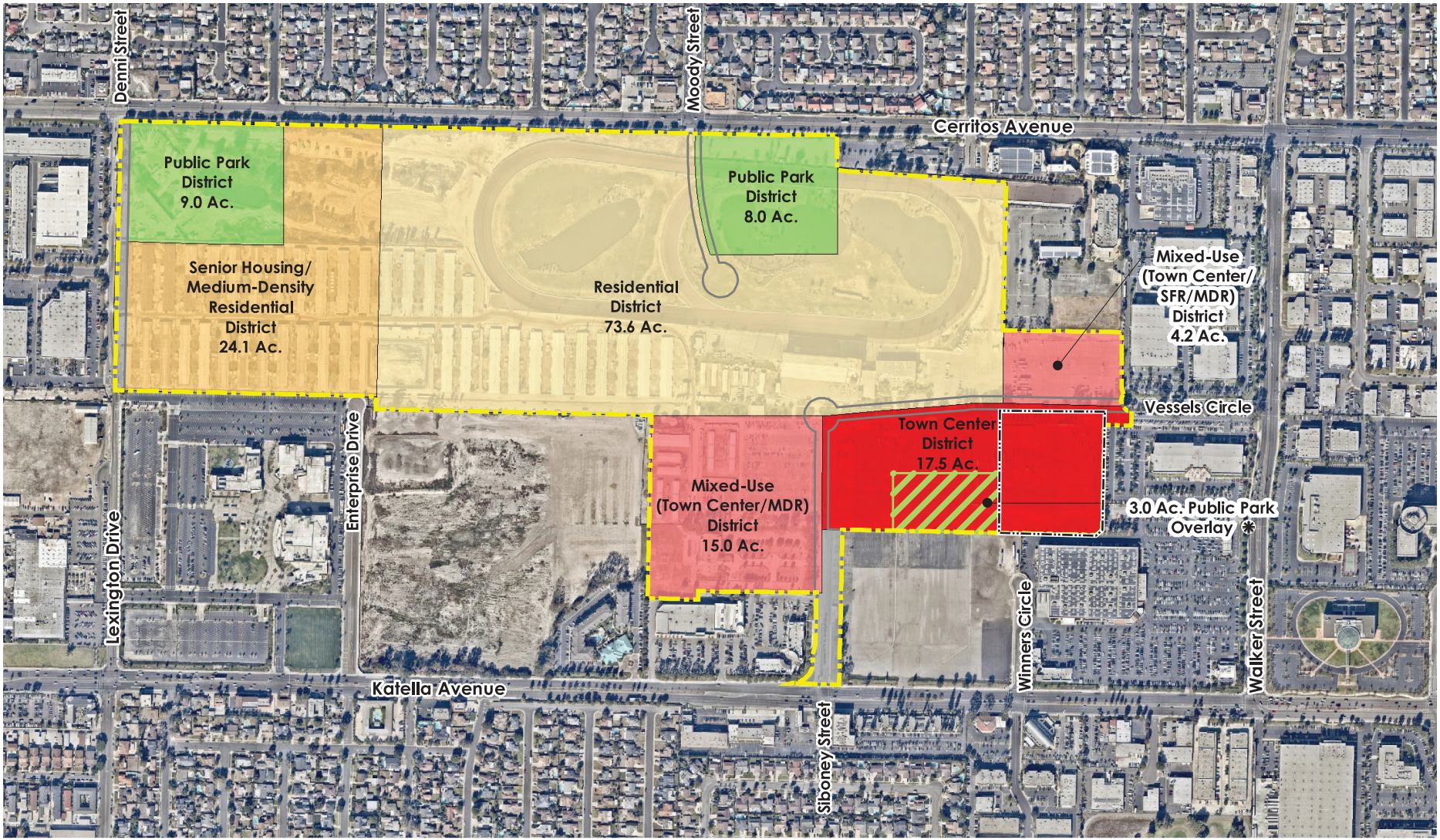
- **North:** North of the site is a Goodwill Donation Center. The Los Alamitos Race Course is immediately northwest of the project. Cypress Corporate Park, which consists of four two-story office/manufacturing/warehouse buildings, is located northeast of the project site.
- **East:** Cypress Business & Professional Center, a two-story office building, is located immediately east of the project site.
- **South:** Costco and a vacant parking lot approved for the Cypress City Center mixed-use development are immediately south of the project site.
- **West:** surface parking lots and vacant land associated with the Los Alamitos Race Course are immediately west of the project site.

3.3 SPECIFIC PLAN, GENERAL PLAN, AND ZONING

3.3.1 Specific Plan

The project site is within the boundaries of the Cypress Town Center and Commons Specific Plan 2.0 (Specific Plan, Approved June 5, 2018). The Specific Plan Area is divided into six land use districts that govern the design and development of a mixed-use, sustainable community within the 154.4-acre Specific Plan Area. The project site is designated as part of the Town Center District (TCD) within the Specific Plan Area, which includes approximately 17.5 acres of land and permits a mixture of retail and entertainment uses, as well as hotel, residential, and commercial uses. Section 3.3, of the Specific Plan permits up to 250 multi-family housing units in the TCD. The land use plan details from the Specific Plan are provided on Figure 3.5, Cypress Town Center and Commons Specific Plan 2.0 Land Use Plan.

This page intentionally left blank



LSA

LEGEND

- Project Site

N

0 340 680

FEET

SOURCE: FORMA

FIGURE 3.5

Cypress Town Center

Cypress Town Center and Commons Specific Plan 2.0 Land Use Plan

I:\MLA2002\G\Specific Plan Land Use.cdr (8/25/2020)

This page intentionally left blank

The Cypress Town Center and Commons Specific Plan 2.0 Land Use designations replaced and superseded the land uses within a 154.4-acre portion of the previously approved Cypress Business & Professional Center Specific Plan (Approved April 17, 1990, Amended and Restated June 5, 2012) that previously regulated land uses on the project site.

Land uses north, west, and northwest of the project site are within the Cypress Town Center and Commons Specific Plan 2.0 area (Specific Plan Area) and the land uses south and east of the project site are within the Amended and Restated Cypress Business & Professional Center Specific Plan area.

3.3.2 General Plan

The project site's General Plan land use designation was amended to "Specific Plan Area" with the approval of the Cypress Town Center and Commons Specific Plan 2.0 ballot measure. The project does not propose any amendments to the City's General Plan or Specific Plan.

3.3.3 Current Zoning

The Cypress Town Center and Commons Specific Plan 2.0 is the regulatory plan that designates the zoning for the project site. The project site's zoning designation was amended to "PC (Planned Community)" with the approval of the Cypress Town Center and Commons Specific Plan 2.0 ballot measure. Consistent with this zoning designation, the Specific Plan governs the permitted uses and development standards associated with the project site.

3.4 PROJECT CHARACTERISTICS

3.4.1 Project Objectives

The following provides the objectives established for the proposed project, several of which include implementation of goals and policies from the City's General Plan and the Specific Plan:

1. Provide new high-quality housing allowed under the Specific Plan.

2. Develop housing in close proximity to existing and future commercial, retail, and medical uses.

3. Provide uses that meet the City's General Plan balanced development goals and objectives to locate higher density housing adjacent to commercial and employment opportunities to encourage pedestrian access and provide a consumer base for commercial uses and to help meet the existing and future housing needs of all Cypress residents.

4. Expand the City's housing supply by developing high-quality housing in the City to alleviate the housing crisis and help the City meet its Regional Housing Needs Assessment allocations.

5. Implement the Cypress Town Center and Commons Specific Plan 2.0, which will permit the development of new parks and multifamily residential units that are attainable housing for local families.

6. Provide pedestrian connections to adjacent parcels to provide connectivity and convenient access to the nearby existing and future commercial and retail uses.

7. Provide landscaped areas that provide passive and active recreation opportunities.

8. Provide landscaped areas to enhance the Specific Plan Area along with green infrastructure to improve stormwater quality.

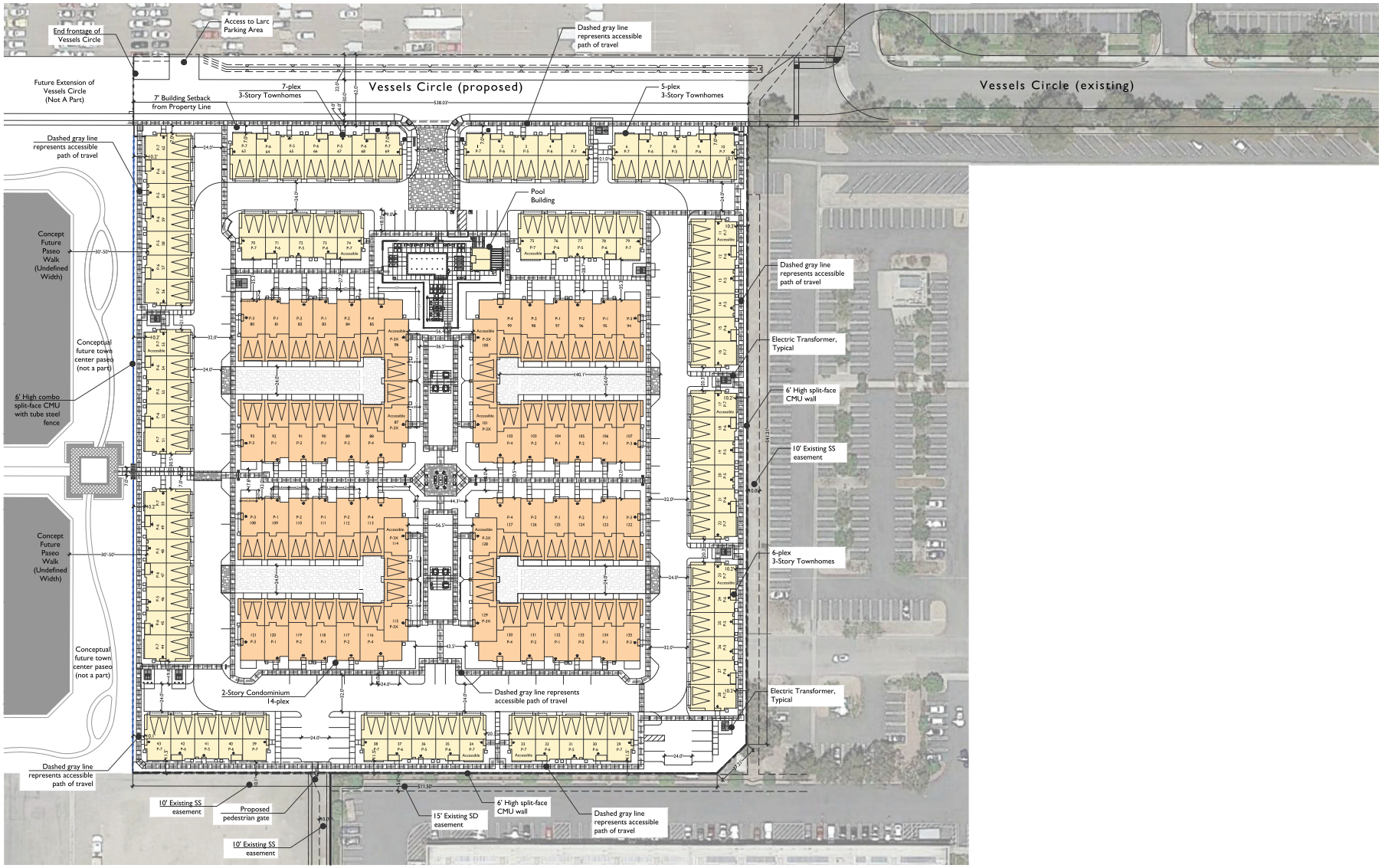
3.4.2 Project Characteristics

As shown on Figure 3.6, Conceptual Site Plan, the proposed project includes the development of a portion of the Los Alamitos Race Course parking lot area into a residential multi-family community consisting of 135 dwelling units consistent with the Specific Plan. The 135 multi-family residential homes would include two types of multi-family units: 56 two-story condominiums in four buildings arranged around motor courts in the center portion of the project site; and 79 three-story row townhomes located along the outer portions of the project site. The proposed density of the project site would be 19.3 dwelling units per acre (du/ac). The layout of the proposed project is a paseo-style community with a central large open space area that would include a pool and landscaped areas for other active and passive recreation uses.

The proposed two-story condominium motor-court homes are comprised of four floor-plan types situated in four individual 14-unit motor court buildings. The motor court buildings would be located next to three paseo frontages that lead to the on-site recreation amenities. The motor court buildings would each have ground-level private enclosed patio spaces. The proposed three-story row townhomes would be comprised of three floor-plan types within three different building types.

3.4.2.1 Parking

The proposed project would provide parking as required under the Specific Plan Section 3.3.8, Parking, which specifies the minimum off-street parking required. The minimum parking requirements for multi-family dwelling units in the Town Center District consist of one garage space and 0.25 unassigned space for every dwelling unit (1.25/du). Based on this parking requirement, the proposed project is required to provide 169 parking spaces (135 garage spaces and 34 unassigned spaces). A two-car side-by-side garage would be provided for each unit within the proposed design community layout. In addition, there would be 62 open guest spaces provided within the project site, provided as either head-in stalls or parallel stalls distributed throughout the community, for a total of 332 private community parking spaces, or 2.46 spaces per home within the project site, exceeding the minimum number set forth in the Specific Plan.



LSA

FIGURE 3.6

N

0 115 130

FEET

SOURCE: Bassenian Lagoni

Cypress Town Center

Conceptual Site Plan

I:\CCP1603.08\G\Site Plan.cdr (1/7/2021)

This page intentionally left blank

3.4.2.2 Site Access

Access to the project site from Walker Street would be provided by an initial extension of Vessels Circle north of the project site, consistent with the Circulation Plan detailed in Section 2.2 of the Specific Plan. As shown on Figure 3.6, the proposed project would extend Vessels Circle westerly along the length of the northern edge of the project site. The proposed project does not include the extension further west to Siboney Street as envisioned under the Specific Plan given the continued operation of the racecourse and its remaining parking areas. The Vessels Circle extension would consist of a 62 ft wide right-of-way consisting of a 30 ft wide paved road and adjacent parkway and sidewalk on the south side and an interim bioswale on the north side. The proposed Vessels Circle extension would ultimately be dedicated to the City of Cypress as a public street.

As shown on Figure 3.6, a 26 ft wide driveway is proposed off the proposed Vessels Circle extension to provide access to the project site. The driveway would connect to an on-site private street that would provide for internal circulation on the project site. The private street would be a minimum width of 24 ft and would include landscaped segments and pockets for traffic calming while providing direct access to garages, motor courts, and on-site parking. Street widths would vary from a 24 ft minimum to 32 ft when parallel parking is designed on one side of the private street. The private street would be maintained by a Homeowners Association (HOA).

Pedestrian access throughout the project site would be provided within paseos and a sidewalk along the interior curb of the on-site private street. Pedestrian connections would provide access to on-site recreation areas, paseos and landscape areas, and parking areas. The pedestrian connections would also provide off-site access to the future development west of the project site, the approved Cypress City Center mixed-use development south of the project site, and the public sidewalk at Vessels Circle.

3.4.2.3 Infrastructure Improvements

The following infrastructure improvements would serve the future development included in the project:

- **Water.** Golden State Water Company owns and maintains a network of water mains in Cypress. They include a 12-inch water main in Katella Avenue and a 10-inch water main in Walker Street. Domestic water service, irrigation water service, and fire protection water service would all be connected to these existing water mains through connections from existing domestic water lines in Vessels Circle and Winners Circle. Domestic water for homes, irrigation, and fire protection would be provided by Golden State Water Company. The water lines would be looped and connected to multiple public hydrants as a public water system.

- **Sewer Service.** The City owns and maintains an 18-inch diameter sewer main in Katella Avenue and an 8-inch diameter sewer main in Winners Circle that connects to the Katella Avenue sewer. Additionally, an 8-inch diameter sewer line is located near the eastern and southern boundaries of the project site and connects to the sewer main in Winners Circle. An on-site network of private sewer mains and laterals would connect to the Winners Circle sewer main. The City's sewer network connects to the Orange County Sanitation District (OCSD) network of sewer trunks and eventually discharges to an OCSD sewage treatment plant.

- **Dry Utilities.** Dry utilities would be provided to the site from existing infrastructure available along Vessels Circle and Walker Street. The proposed project would connect to the existing infrastructure through established utility easement agreements.

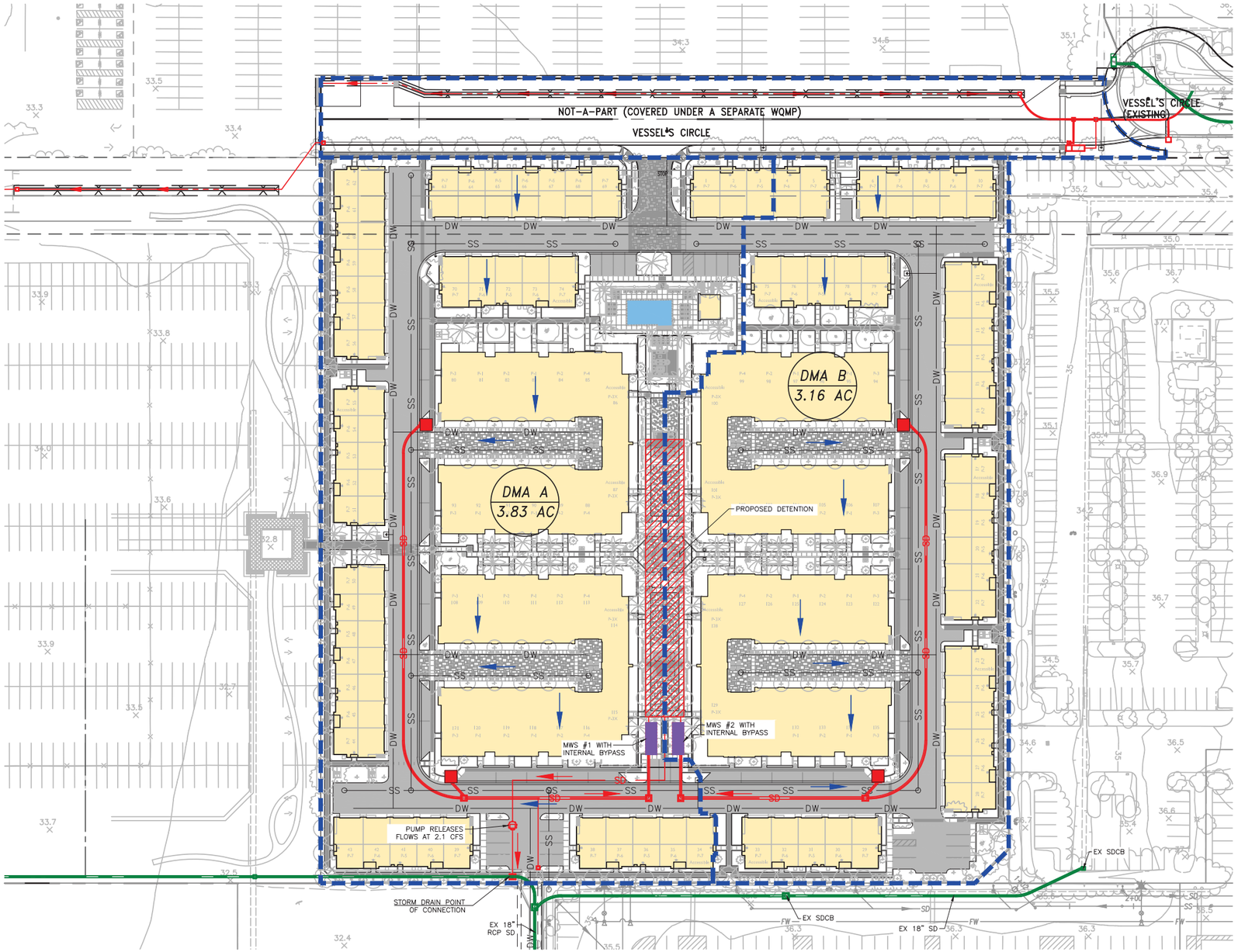
- **On-Site Drainage.** All on-site stormwater runoff would be treated, detained, and released into the Winner Circle storm drain system at City required controlled rates. In general, the system includes an underground detention system to limit peak outflow to 0.03 cubic feet per second per acre (cfs/ac). The underground detention system would have an approximately 6,500 square-foot (sf) footprint and would provide approximately 28,200 cubic feet (cf) of stormwater detention volume through underground storm trap cells. A pump system is proposed to lift stormwater from the detention system to two modular wetland system for volume-based water quality treatment prior to release to the Winner Circle storm drain system. Figure 3.7a, On-Site Drainage Plan, shows the proposed on-site drainage and proposed on-site operational BMPs.

- **Off-Site Improvements:** The proposed project includes an off-site swale south of the project site that would direct overflow from the proposed on-site drainage facilities towards Winners Circle. Overflow is expected to occur during 100-year storm events. The swale would be coordinated with neighboring property owners and the City of Cypress. Additionally, as described previously in Section 3.4.2.2, the proposed project also includes the extension of Vessels Circle north of the project site and the striping of the existing segment of Vessels Circle to the east. Additionally, the proposed project includes three bioswales and a modular wetland system to collect and treat drainage from the Vessels Circle extension. One of these swales would be constructed on Los Alamitos Race Course property in coordination with the race track ownership. Figure 3.7b, Off-Site Drainage Plan, shows the proposed off-site drainage and proposed off-site operational BMPs.

3.4.2.4 Construction Duration, Phasing, and Grading

Construction activities for the proposed project would include removal of asphalt; site preparation; grading; construction of the residential buildings and paving; architectural coating activities; and installation of landscaping. Construction of the proposed project would be completed in seven phases, including mass grading and installation of utilities, streets and curb and gutter in the initial phase. Construction is anticipated to last for approximately 27 months.

Construction of the proposed project would require approximately 33,030 cubic yards (cy) of cut and 40,155 cy of fill, resulting in a net import of approximately 7,125 cy of material. Excavation depths would reach a maximum of up to 7 ft. Excavation depths would range between 6 to 7 ft for sewer lines, approximately 5 ft for storm drain systems, and approximately 60 inches for dry utilities. Grading and building activities would involve the use of standard earthmoving equipment such as loaders, bulldozers, cranes, and other related equipment.



LEGEND

- PROPERTY LINE
- EXISTING STORM DRAIN
- PROPOSED STORM DRAIN
- BMP DRAINAGE AREA BOUNDARY
- PROPOSED COMMON AREA LANDSCAPING
- PROPOSED BUILDING
- STREET SWEEPING PRIVATE STREETS & PARKING LOTS
- PROPOSED POOL
- CATCH BASIN STENCILING & MAINTENANCE**
- MODULAR WETLAND SYSTEM (MWS)
- DETENTION FOR FLOOD CONTROL
- DIRECTION OF SURFACE FLOW
- DIRECTION OF PIPED FLOW
- DMA1 X.XX AC — DRAINAGE MANAGEMENT AREA AND ACREAGE

NO DUMPING · THIS DRAINS TO OCEAN

**PROPOSED CATCH BASIN STENCILING

**CATCH BASINS TO INSTALL FULL CAPTURE SYSTEMS CONNECTOR PIPE SCREEN (CPS OR SIMILAR) TO COMPLY WITH THE STATEWIDE TRASH PROVISIONS

MODULAR WETLAND SYSTEM DESIGN SUMMARY

DMA	DRAINAGE AREA	IMP	Q FLOW RATE	SIZE / MODEL	TOTAL TREATMENT CAPACITY
DMA A	3.83 AC	83%	0.774 CFS	MWS-L-8-24-HC	0.774 CFS
DMA B	3.16 AC	83%	0.636 CFS	MWS-L-8-24	0.693 CFS

LSA

FIGURE 3.7a

N

0 25 50
FEET

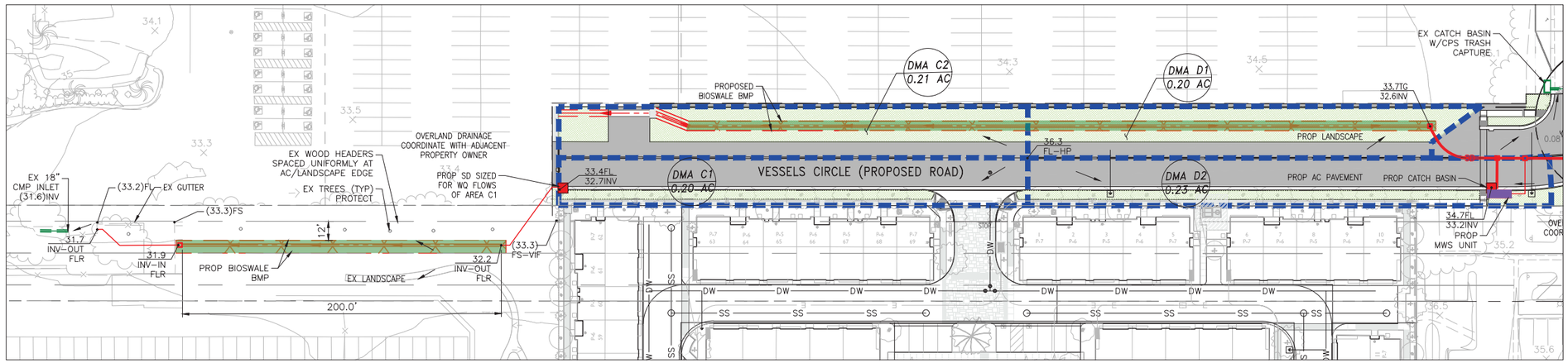
SOURCE: Fuscoe Engineering

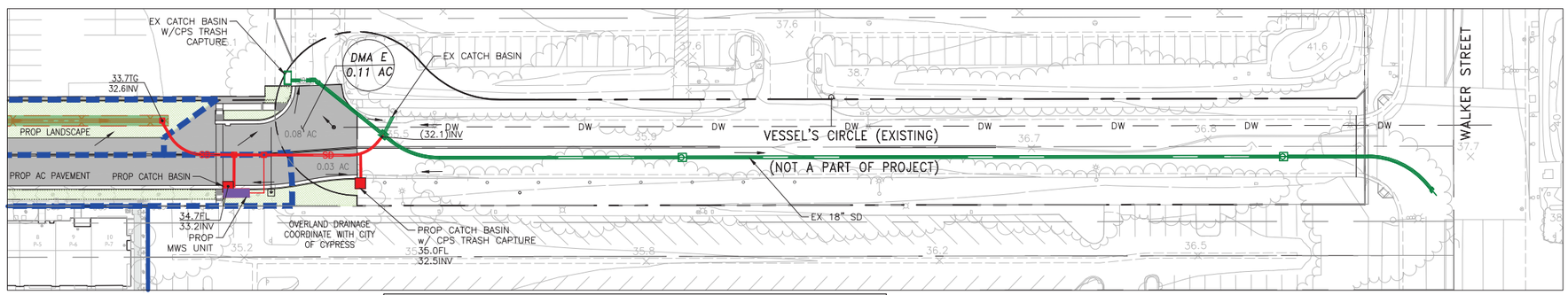
Cypress Town Center

On-Site Drainage Plan

I:\CCP1603.08\G\On-Site Drainage Plan.cdr (1/8/2021)

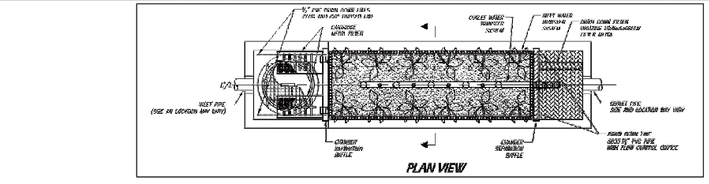
This page intentionally left blank

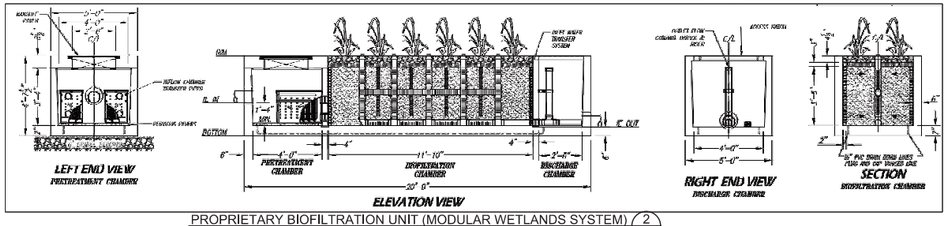




LEGEND

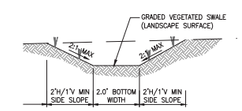
- PROPERTY LINE
- EXISTING STORM DRAIN
- PROPOSED STORM DRAIN
- BMP DRAINAGE AREA BOUNDARY
- RIGHT OF WAY LANDSCAPING
- PUBLIC STREET IMPROVEMENTS
- CATCH BASIN STENCILING & MAINTENANCE (1)
- PROPOSED MODULAR WETLAND SYSTEM (MWS) (2) *HAS BEEN UPSIZED TO OFFSET DMA E
- PROPOSED BIOSWALE BMP (3)
- DMA1 X.XX AC — DRAINAGE MANAGEMENT AREA AND ACREAGE





PROPRIETARY BIOFILTRATION UNIT (MODULAR WETLANDS SYSTEM) (2)
SCALE: NTS

PROPOSED CATCH BASIN STENCILING (1)
SCALE: NTS



PROPOSED BIOSWALE BMP (3)
SCALE: NTS
PER OC TECHNICAL GUIDANCE BIO-2

LSA

FIGURE 3.7b

N

0 20 40
FEET

SOURCE: Fuscoe Engineering

Cypress Town Center

Off-Site Drainage Plan

I:\CCP1603.08\G\Off-Site Drainage Plan.cdr (1/8/2021)

This page intentionally left blank

3.4.2.5 Green Building Characteristics

The proposed project would be designed to meet sustainability goals, including the California Green Building Standards Code (CALGreen Code), Title 24 energy efficiency requirements, and Assembly Bill 1881 water efficient landscape requirements and Model Water Efficient Landscape Ordinance (MWELO) guidelines. The proposed project would also would also incorporate a number of energy and water conservation measures, green building features, and Low Impact Development (LID) design features. These design features and practices include the following:

- Current Title 24 standards for building envelope insulation, ventilation, programmable thermostats, and stucco applications would be met or exceeded.
- Each unit would be provided with energy star efficient appliances and light-emitting diode (LED) indoor lighting.
- The proposed development would be located within a transit-friendly community.
- Each residential unit would be provided energy-efficient heating and air conditioning.
- Energy efficiency for the residential units via solar panels on the roof would be provided.
- Units would use natural ventilation techniques such as operable windows, reducing energy demand, and locating windows in a manner that promotes natural cross ventilation.
- Low-voltage light fixtures and energy-efficient bulbs would be used.
- Passive design would be used to improve building energy performance through landscaping and reducing heat gain with the use of reflective colors.
- Tankless water heaters would be used.
- Energy-efficient vinyl windows would be used.
- Water and energy-saving fixtures and appliances would be used.
- Smart climate controls would be installed to efficiently regulate temperature.
- Predominantly light-colored stucco colors throughout proposed structures would assist in the reduction of heat gain.
- The proposed landscape would be designed using low-water use plant species, all classified in the Water Use Classification of Landscape Species Residential Runoff Reduction Study (WUCOLS [R3]) as “Low” for all shrubs and groundcovers.
- The landscape would be irrigated with drip tubing and point-source tree bubblers to maximize water efficiency.

- The plant palette would consist of low maintenance shrubs and groundcovers, requiring minimal trimming and hedging to reduce the need for gas-operated equipment.
- Multiple shade structures would be integrated into recreation area and paseos to reduce the heat island effect within the proposed project.
- Project Design Features would include the use of biofiltration treatments and bioswales for best management practices (BMPs) for stormwater runoff.

3.4.2.6 Proposed Open Space Amenities

As shown in Figure 3.8, Proposed Open Space Amenities, the proposed project would include a central gathering area with a wood shade structure (string lighting) with a large fire-pit or double sided fireplace, lounge seating for small social events and group gatherings, a pool area with lounge chairs and fire pits, and community passive and active open lawn space.

3.4.2.7 Landscape, Lighting, and Signage

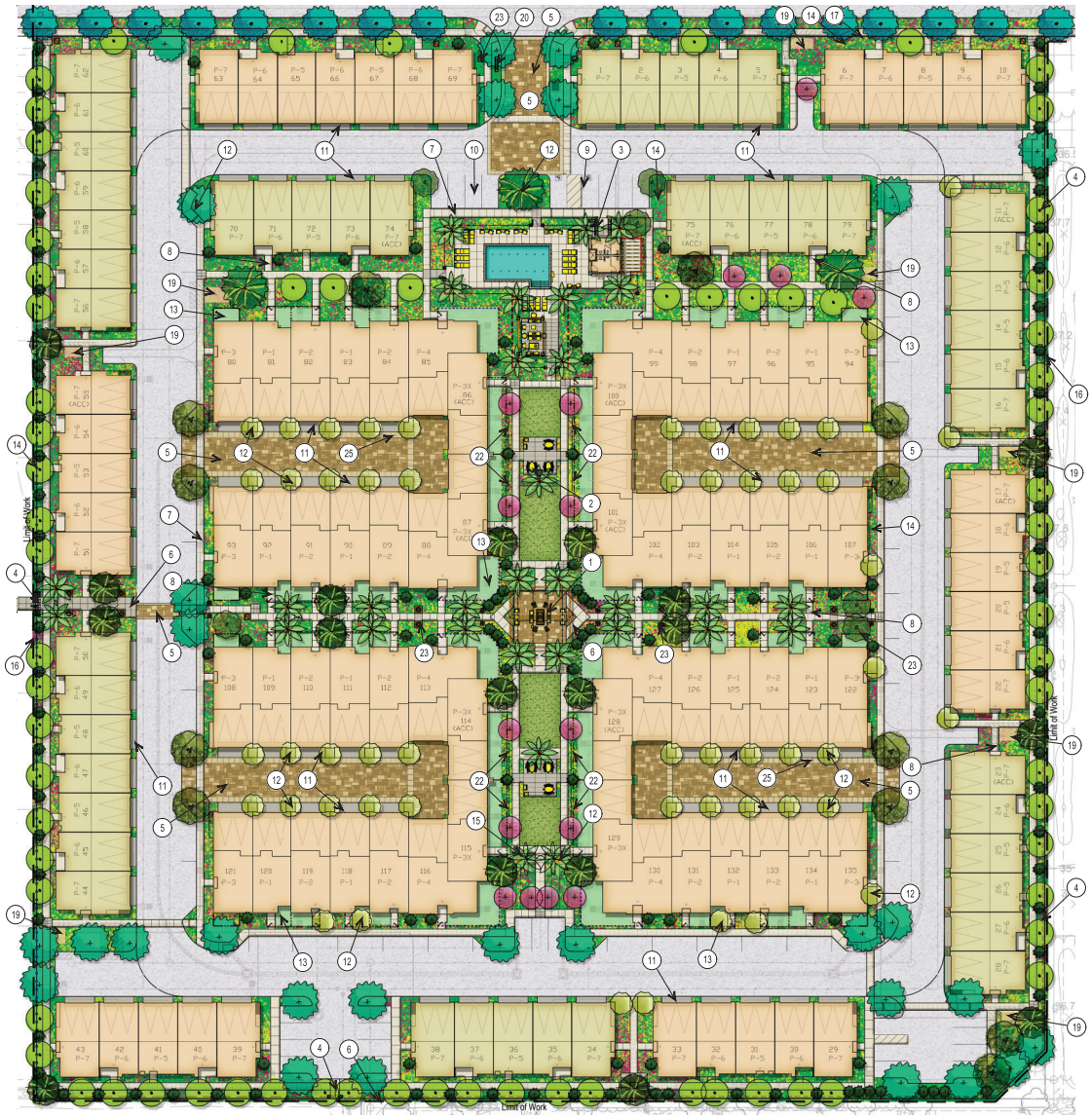
As shown in Figure 3.9, Conceptual Landscape Plan, landscaping for the proposed project would be provided throughout the project site. Landscaping for the proposed project would include a variety of low-water use tree and plant species. The higher water use lawn areas are centrally designed and sized to accommodate both passive and active play uses for residents. All other landscape areas would be low water shrubs and groundcovers.

Lighting would be distributed throughout the project site. All site lighting would be illuminated with LED fixtures to meet current Title 24 building code and light fixtures to incorporate shielding to minimize and eliminate site lighting spill over into neighboring properties. Proposed lighting includes 14 ft overhead light poles, and a combination of building mounted architectural lights and pedestrian bollard lighting.

A low (maximum of 42 inches tall) double-sided ground monument sign is proposed 10 ft behind the southerly right-of-way line of the proposed Vessels Circle extension on the west side of the project entry driveway. Any future address signage and emergency response signage would comply with Orange County Fire Authority (OCFA) and City requirements for emergency identification and response.

3.4.2.8 Architectural Design

The architectural design of the proposed project would include light-stucco colors with a variety of complementary building materials that would be consistent with all design guidelines provided in the Specific Plan. The architectural design of the proposed project would reflect a modern style with clean and distinctive lines, with an emphasis on the horizontal and vertical cream-white forms, arched openings, corner fenestration, and an appropriate amount of material accents applied to each residential building. The proposed design would break up building mass into various box-shaped buildings. The proposed two-story motor court homes would be 28 ft, 4 inches tall, and the three-story townhomes would be 38 ft, 1 inch tall.



LEGEND

1. Central gathering area, wood shade structure (string lighting) with large fire-pit.
2. Lounge seating for small social events and group gatherings.
3. Seven community cluster mailboxes, per USPS review and approval.
4. Proposed wall, pilaster, gate or fence, per Wall & Fence Plan.
5. Enhanced paving at main project entry, crossings, and motorcourt drives.
6. 5' wide pedestrian esplanade, integral colored concrete, with light top-cast finish and saw-cut joints.
7. 4' wide community natural colored concrete sidewalk, with light top-cast finish and saw-cut joints.
8. 3' wide unit entry natural colored concrete walk, with light top-cast finish and saw-cut joints.
9. Accessible parking stall and striping, per Civil plans.
10. Guest parking stall.
11. Natural colored concrete driveway, with light broom finish and tooled joints.
12. Proposed tree, per Planting Plan.
13. Private patio / yard area, homeowner maintained.
14. Common area landscape, builder installed and HOA maintained.
15. Community dog bag station (black in color), for pet owners.
16. Property line.
17. Public street R.O.W.
18. Proposed public street sidewalk, per Civil plans.
19. Transformer to be screened with landscape, quantity and final locations to be determined.
20. Double sided monument sign (42' tall max), materials to match architecture.
21. Pool area with lounge chaise and fire pits.
22. 8' High vertical metal panels & vine trellis for buffering adjacent patios.
23. Decorative pots in landscape with colored band paving.
24. Community passive and active open lawn space.
25. Complementary colored stamped concrete paver band.

LSA

FIGURE 3.8

N

0 115 130
FEET

SOURCE: studio PAD

Cypress Town Center

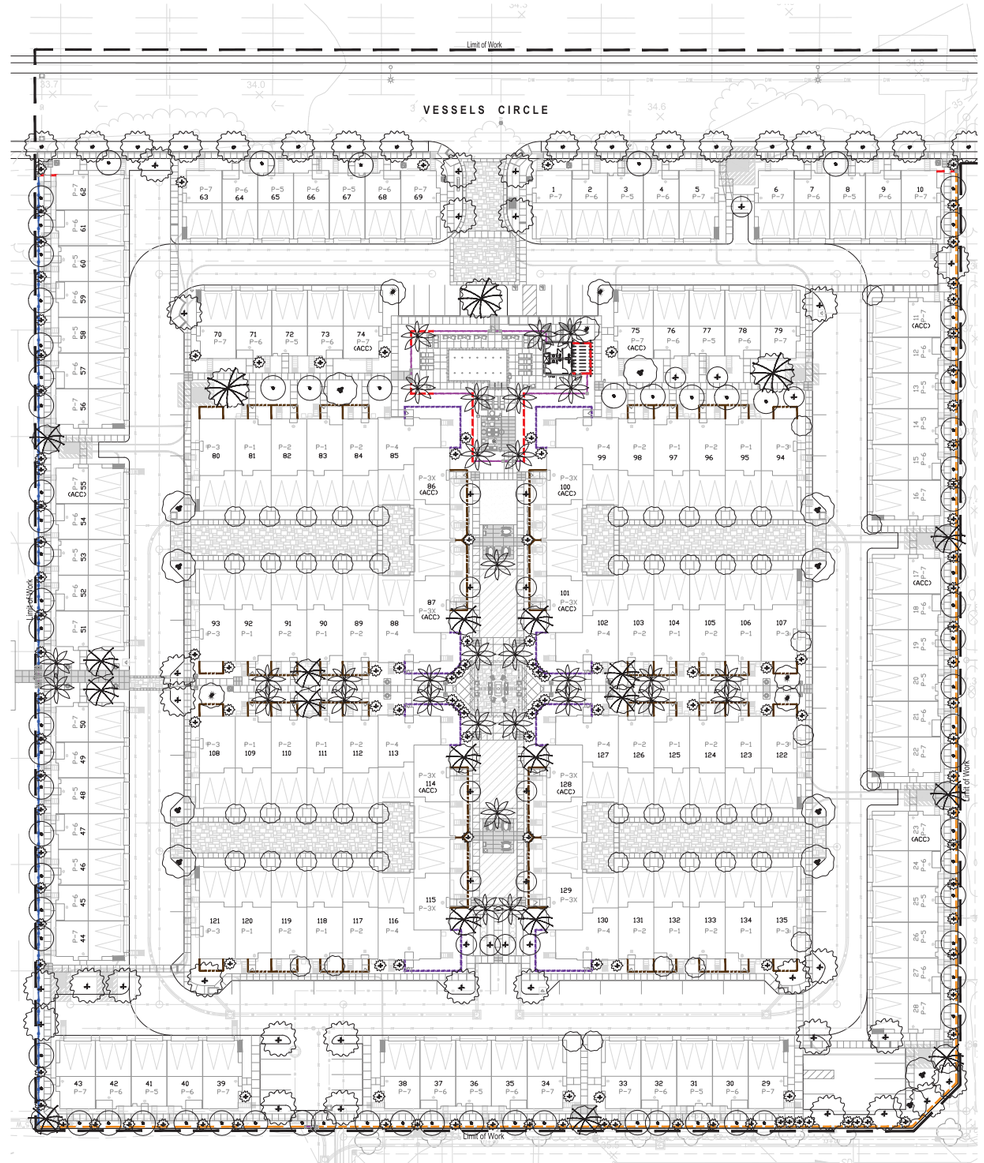
Proposed Open Space Amenities

I:\CCP1603.08\G\Open Space Amenities.cdr (1/8/2021)

This page intentionally left blank

SHRUBS and GROUND COVER		WUCOLS (R3)
Anigozanthos	Kangaroo Paw	Low
Agave sp.	Agave	Low
Aloe sp.	Aloe	Low
Bougainvillea sp.	Bougainvillea	Low
Callistemon citrinus 'Little John'	Dwarf Bottlebrush	Low
Carex divulsa	Berkeley Sedges	Low
Carissa m. 'Green Carpet'	Dwarf Natal Plum	Low
Chamaerops humilis	Mediterranean Fan Palm	Low
Cordyline 'Pink Passion'	Pink Passion Dracaena Palm	Low
Dasylirion longissimum	Mexican Grass Tree	Low
Delosperma cooperi	Trailing Ice Plant	Low
Dianella revoluta 'Little Rev'	Little Rev™ Flax Lily	Low
Iris sp.	Iris	Low
Kalanchoe thyrsiflora	Flapjack Paddle Plant	Low
Lavandula stoechas 'Larkman Hazel'	Hazel™ Spanish Lavender	Low
Ligustrum japonicum "Texanum"	Japanese Privet	Low
Nassella pulchra	Purple Needlegrass	Low
Muhlenbergia rigens	Deer Grass	Low
Rhaphiolepis indica 'Clara"	India Hawthorn	Low
Rosmarinus p. 'Huntington Carpet'	Groundcover Rosemary	Low
Strelitzia reginae	Bird of Paradise	Low
Trachelospermum jasminoides	Star Jasmine	Low
Westringia sp.	Westringia	Low
Xylosma congestum 'Compact'	Compact Xylosma	Low
Yucca gloriosa	Spanish Dagger	Low

VINES & ESPALIERS	
Antigonon leptopus	Coral Vine
Bougainvillea 'Monka' (Oo-La-La® Bougainvillea)	Bougainvillea
Macfadyena unguis-cati	Cat's Claw Vine
Pandorea jasminoides 'Lady Di'	White Bower Vine
Trachelospermum jasminoides	Star Jasmine



NOTES:

1. Irrigation (including spray and/or drip) will be provided, in the Construction Document phase, and to be installed per local California water regulations (AB1881) .
2. Vehicular Swinging Gates to be installed per local Fire Codes & Regulations.
3. Transformers, back-flow preventers & other above-ground utilities to be screened with landscape as permitted per local codes & regulations.
4. Landscape lighting (landscape up-lights, path lights/bollards, etc.) to be coordinated with Electrical Engineer in future phase.
5. The plant palette listed provides a list of plant material to select from when preparing final landscape construction documents for this project. However, substitutions may be required due to availability, soils tests, or other conditions.
6. All trees within 5' of hardscape to be installed with deep root barriers.

PLANTING LEGEND

Symbol	Type/Form	Suggestions	Trunk	Size	Wucols (R3)	Qty.
		Botanical Name (Common Name)				
	PALMS					
	Vertical	Phoenix dactylifera (Date Palm) Syagrus romanzoffiana (Queen Palm)	Single	10' BT	Low Medium	31
	TREES					
	Specimen	Olive sp. (Field Grown Olive, B&B)	Multi	10'x10' Canopy	Low	4
	Focal	Magnolia g. 'Little Gem' (L. Gem Magnolia)	Single	36" Box	Medium	18
	Canopy Deciduous	Platanus racemosa (California Sycamore)	Single	24" Box	Medium	12
	Street	Tristania conferta (Brisbane Box)	Single	24" Box	Medium	29
	Evergreen Flowering	Arbutus unedo (Strawberry Tree)	Multi	24" Box	Low	6
	Deciduous Flowering	Lagerstroemia i.x f. 'Natchez' (Crape Myrtle)	Single	15 Gal	Medium	16
	City Parkway	Handroanthus impetiginosus (Pink Trumpet Tree) (Final Species Selection Per City)	Single	24" Box	Medium	19
	Medium Evergreen	Arbutus 'Marina' (Strawberry Tree) Geijera parvilflora (Australian Willow) Rhus lancea (African Sumac)	Single	15 Gal	Low	73
	Columnar	Cupressus sempervirens (Italian Cypress) Podocarpus macrophyllus (Yew Pine)	Single	15 Gal	Low Medium	133
					TOTAL = 341	

LSA

FIGURE 3.9

0 45 90
FEET

SOURCE: studio PAD

I:\CCP1603.08\G\Landscape Plan.cdr (1/8/2021)

Cypress Town Center

Conceptual Landscape Plan

This page intentionally left blank

3.4.3 Discretionary Actions

Discretionary approvals required for the proposed project are outlined in Table 3.1, below:

Table 3.1: Discretionary Approvals Required for the Proposed Project

Discretionary Action	Agency Responsible
Certification of this EIR	Cypress City Council
Vesting Tentative Tract Map	Cypress City Council
Site Plan/Design Review	Cypress Design Review Committee
Vacation and/or dedication of City right-of-way	Cypress Public Works Department

EIR = Environmental Impact Report

The following provides a description of the City's primary discretionary approvals for the proposed project.

3.4.3.1 Vesting Tentative Tract Map

Vesting Tentative Tract Map (VTTM) 19114 proposes to subdivide the 7-acre project site into a total of 14 new lots, all for condominium purposes. The VTTM proposes 11 lots for the condominium buildings and three lots for private streets and the recreation center area.

3.4.3.2 Site Plan/Design Review

Site Plan/Design Review of the proposed project would be conducted pursuant to Section 4.19.060 of the City's Municipal Code. As part of this review, the City would consider whether the proposed project is in compliance with all zoning requirements and consider the aesthetics and design of the proposed project relative to the aesthetic qualities within the City.

3.4.3.3 Certification of Final EIR

The City Council would certify that the Final EIR addresses the potential environmental effects of the proposed project and identifies appropriate mitigation measures to address any potentially significant effects.

3.4.4 Ministerial Actions

Ministerial approvals required for the proposed project are outlined in Table 3.2, below:

Table 3.2: Ministerial Approvals Required for the Proposed Project

Action	Agency Responsible
General Construction Permit	State Water Resources Control Board (SWRCB)
Groundwater Dewatering Permit	Santa Ana Regional Water Quality Control Board (RWQCB)
Proposed Construction or Alteration Determination, pursuant to 14 CFR, Part 77	Federal Aviation Administration (FAA)

CFR = Code of Federal Regulations

This page intentionally left blank

4.0 EXISTING SETTING, ENVIRONMENTAL ANALYSIS, IMPACTS, AND MITIGATION MEASURES

OVERVIEW OF ENVIRONMENTAL SETTING

The project site is located in the southern portion of the City of Cypress, California, approximately 1 mile northwest of the City of Garden Grove and approximately 800 feet (ft) north of the City of Los Alamitos. The Los Alamitos Race Course is located northwest of the project site. As illustrated by Figure 3.1, Regional and Project Location, and provided in Chapter 3.0, Project Description, the project site is approximately 2 miles east of the San Gabriel River Freeway (Interstate 605) and approximately 3 miles north of the Garden Grove Freeway (State Route 22) and the San Diego Freeway (Interstate 405).

In its existing condition, the project site is a paved parking lot. The project site is relatively flat and devoid of any vegetation except for the 60-ft wide strip of ornamental trees, palm trees, and grass/shrubs on the north portion of the project site. The existing parking lot currently includes asphalt paving and six overhead light poles. In the existing condition, direct access is only provided to the project site from Costco Way near the southeast corner of the project site.

Existing water, sewer, and dry utilities along Katella Avenue and Walker Avenue serve the project area. The project site would connect to these via existing domestic lines in Vessels Circle and Winners Circle. Most of the project site is currently paved and includes some ornamental landscaping along the northern edge of the project site. Public sidewalks do not currently exist within the project site. Vehicular access to the project site is provided via the existing entryways to the Los Alamitos Race Course, such as Siboney Street.

The project site is bounded by the following uses in its immediate vicinity:

- **North:** North of the site is a Goodwill Donation Center. The Los Alamitos Race Course is immediately northwest of the project. Cypress Corporate Park, which consists of four two-story office/manufacturing/warehouse buildings, is located northeast of the project site.
- **East:** Cypress Business & Professional Center, a two-story office building, is located immediately east of the project site.
- **South:** Costco and a vacant parking lot approved for the Cypress City Center mixed-use development are immediately south of the project site.
- **West:** surface parking lots and vacant land associated with the Los Alamitos Race Course are immediately west of the project site.

CHAPTER FORMAT

This chapter contains 17 sections, and each section addresses one environmental topic listed in Appendix G of the Guidelines for the California Environmental Quality Act (*State CEQA Guidelines*) (California Code of Regulations [CCR] Title 14, Chapter 3, Sections 15000–15397).

For each environmental impact issue analyzed, the Draft Environmental Impact Report (EIR) includes a detailed explanation of the existing conditions, thresholds of significance that will be applied to determine whether the project's impacts are significant or less than significant, analysis of the environmental impacts, and a determination of whether the project would have a significant impact if implemented. A "significant impact" or "significant effect" means "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora fauna, ambient noise, and object of aesthetic significance. An economic or social change by itself shall not considered to be a significant effect on the environment." (14 CCR, Section 15382). Each environmental topic section in Chapter 4.0 also includes a discussion of the cumulative effects of the project when considered in combination with other projects, causing related impacts, as required by *State CEQA Guidelines* Section 15130.

Each of the sections is organized into twelve subsections, as follows:

- **Introduction** briefly describes the topics and issues covered in the section.
- **Scoping Process** describes the number and a brief description of comments received from the public during the public scoping period.
- **Methodology** describes the approach and methods employed to complete the environmental analysis for the issue under investigation.
- **Existing Environmental Setting** describes the relevant physical conditions that exist at the time of the issuance of the Notice of Preparation (NOP) that may influence or affect the issue under investigation. This section focuses on physical site characteristics that are relevant to the environmental topic being analyzed.
- **Regulatory Setting** lists and discusses the laws, ordinances, regulations, plans, and policies that relate to the specific environmental topic and how they apply to the proposed project.
- **Thresholds of Significance** sets forth the thresholds that are the basis of the conclusions regarding significance, which are primarily the criteria in Appendix G to the *State CEQA Guidelines* and the City of Cypress (City) *Initial Study/Environmental Checklist*, General Plan, or Zoning Code.
- **Project Impacts** describes the potential environmental changes to the existing physical conditions that may occur if the proposed project is implemented. Evidence is presented to show the cause-and-effect relationship between the proposed project and potential changes in the environment. In accordance with *State CEQA Guidelines* Section 15126.2(a), this EIR is required to "identify and focus on the significant environmental effects" of the proposed project. The magnitude, duration, extent, frequency, and range or other parameters of a potential impact are ascertained to the extent feasible to determine whether impacts may be significant. In accordance with CEQA, potential project impacts, if any, are classified as follows for each of the environmental topics discussed in this EIR.
    - **Significant and Unavoidable Impact:** If the proposed project is approved with significant and unavoidable impacts, the decision-making body is required to adopt a statement of

overriding considerations pursuant to *State CEQA Guidelines* Section 15093 explaining why the project benefits outweigh the unavoidable adverse environmental effects caused by those significant and unavoidable environmental impacts.

- **Less Than Significant with Mitigation Incorporated:** This classification refers to potentially significant environmental impacts that can be feasibly mitigated to a level of insignificance. If the proposed project is approved, the decision-making body is required to make findings pursuant to *State CEQA Guidelines* Section 15091 that significant impacts have been mitigated to the extent feasible through implementation of mitigation measures.
- **Less Than Significant Impact:** Less than significant impacts are environmental impacts that have been identified but are not potentially significant. No mitigation is required for less than significant impacts.
- **No Impact:** A "no impact" determination is made when the proposed project is found to have no environmental impact.

- **Level of Significance Prior to Mitigation** summarizes the potentially significant impacts of the project, if any, prior to mitigation.
- **Regulatory Compliance Measures and Mitigation Measures** describes relevant and applicable laws or regulations that must be adhered to with respect to the construction and/or operation of the proposed project and would reduce or lessen potential impacts related to a particular issue area and identifies project-specific measures that avoid, minimize, rectify, reduce, eliminate, or compensate for a potentially significant impact.
- **Level of Significance after Mitigation** describes the significance of potential impacts after implementation of mitigation measures. Potential significant unavoidable impacts, if any, are clearly stated in this section.
- **Cumulative Impacts** refers to potential environmental changes to the existing physical conditions that may occur as a result of project implementation together with all other reasonably foreseeable, planned, and approved future projects in the vicinity of the project site that produce related impacts. *State CEQA Guidelines* Section 15355 defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." Cumulative impacts may result from individually minor but collectively significant projects taking place over a period of time. Projects that have progressed to the stage where CEQA review has been initiated are normally treated as foreseeable probable future projects. For each of the environmental topics considered in this EIR, the geographic scope of the cumulative analysis is defined.

THRESHOLDS OF SIGNIFICANCE

The threshold questions used in Section 4.9, Hydrology and Water Quality, of this EIR are consistent with those included in the City's *Initial Study/Environmental Checklist*. The additional threshold questions used in this EIR are consistent with Appendix G of the *State CEQA Guidelines*.

EFFECTS EVALUATED IN THIS EIR

The discussion of potential effects in this EIR is presented by environmental resource area. As part of the scoping and environmental analysis carried out for the proposed project, the following environmental issues were considered but no adverse impacts were identified. As a result, there is no further discussion about these issues in the document.

Agriculture/Forestry Resources: The proposed project is located within a suburban setting and does not affect any existing agricultural or forestry resources. Furthermore, there are no farmlands or timberlands designations within the project area in the City's General Plan Land Use Element (2001) or Zoning Ordinance.

Mineral Resources: The State Division of Mines and Geology identifies mineral resource areas throughout the State. According to the City's General Plan Conservation/Open Space/Recreation Element (2001), there are no mineral resources as defined by the State Division of Mines and Geology within the City. Therefore, no significant impacts related to mineral resources would result from project implementation.

Wildfire: The California Department of Forestry and Fire Protection (CAL FIRE) has mapped areas of significant fire hazards in the State. These maps place areas of California into different fire hazard severity zones (FHSZ), based on a hazard scoring system using subjective criteria for fuels, fire history, terrain influences, housing density, and occurrence of severe fire weather where urban conflagration could result in catastrophic losses. CAL FIRE designates areas as very high fire hazard severity zones (VHFHSZ) or non-VHFHSZ. According to the CAL FIRE Very High Fire Hazard Severity Zone Maps for the Orange County Region, the entire City of Cypress is designated as a non-VHFHSZ.[1] Because the project site is not located in or near a VHFHSZ, it would not result in any impacts related to wildfire.

RELATED PROJECTS

In accordance with *State CEQA Guidelines* Section 15130, cumulative impacts are anticipated impacts of the proposed project along with reasonably foreseeable growth. Reasonably foreseeable growth may be based on either:

- A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or
- A summary of projections contained in the adopted General Plan or related planning document, or in a prior environmental document that has been adopted or certified, and that described or evaluated regional or areawide conditions contributing to the cumulative impact.

[1] California Department of Forestry and Fire Protection (CAL FIRE). 2011. Very High Fire Hazard Severity Zones in LRA as Recommended by CALFIRE. Website: https://osfm.fire.ca.gov/media/6739/fhszl_map30.pdf (accessed December 3, 2020).

For the purposes of the EIR, a list of past, present, and probable future projects is used in the evaluation of potential cumulative impacts. All proposed, recently approved, under construction, and reasonably foreseeable projects that could produce a related or cumulative impact on the local environment when considered in conjunction with the proposed project are evaluated in an EIR. As stated above, an analysis of the cumulative impacts associated with these related projects and the proposed project is provided in the cumulative impacts discussion under each individual impact category in Chapter 4.0.

In coordination with the Cities of Cypress and Los Alamitos, a list of past, present, and probable future projects was developed. As shown in Table 4.A, below, the projects include various land uses, such as residential, commercial, industrial, hotel, and mixed-use. The locations of the related projects are shown on Figure 4.1, Related Projects. Although some projects on the list have been completed since issuance of the NOP, they remain on the list because they are part of the cumulative analysis for the EIR.

It is noted that some of the related projects may not be completed by 2023 (the proposed project's anticipated buildout year), may never be built, or may be approved and built at reduced densities. However, to provide a conservative forecast, the future baseline forecast assumes that all of the related projects will be fully built out by 2023.

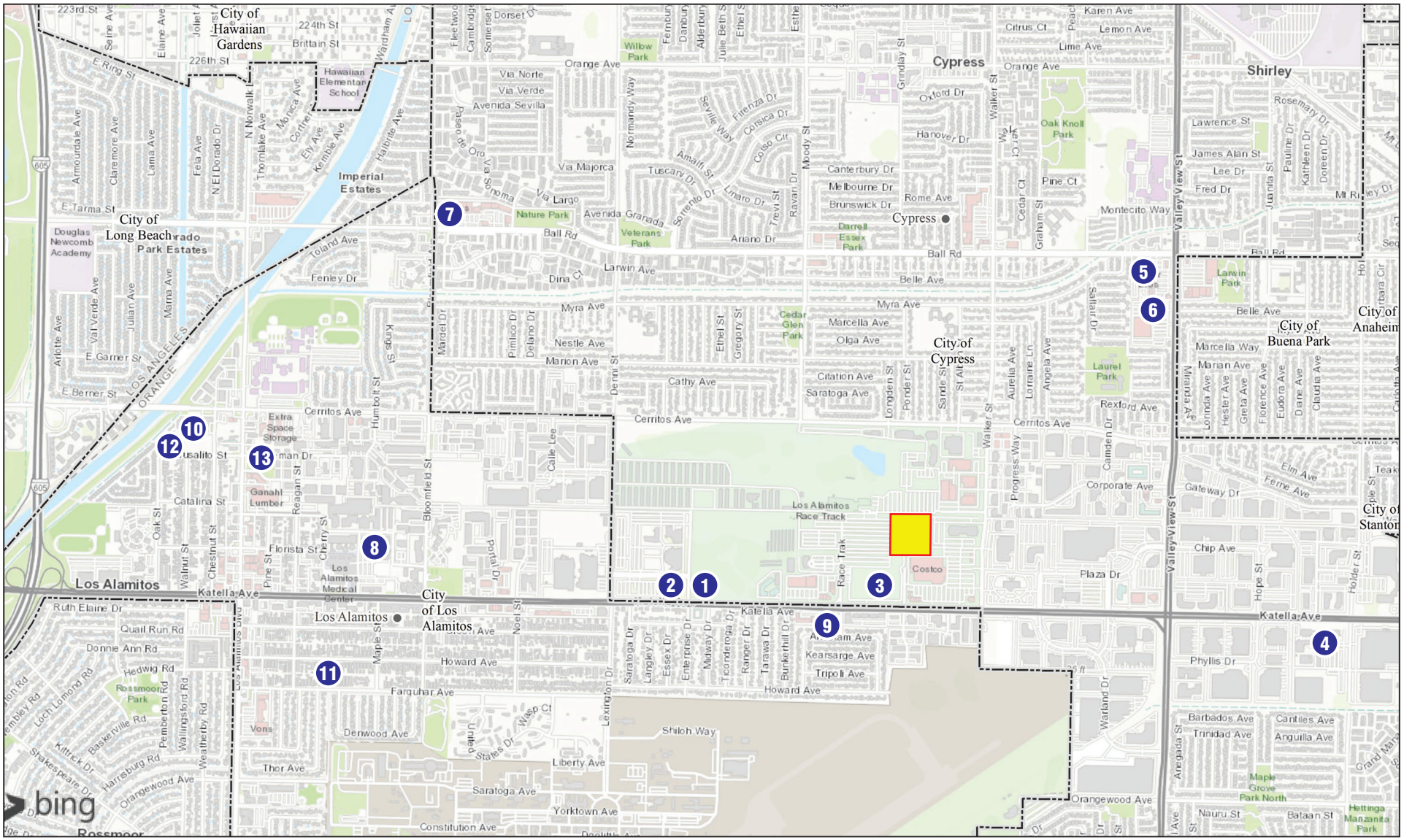
The discussion of cumulative impacts "should be guided by the standards of practicality and reasonableness" (*Environmental Protection Info. Center v. Department of Forestry & Fire Protection* (2008) 44 Cal.4th 459, 524). A proposal that has not crystallized to the point that it would be reasonable and practical to evaluate its cumulative impacts need not be treated as a probable future project (*City of Maywood v. Los Angeles Unified School District* (2012) 208 Cal.App.4th 362, 397).

Rather, a potential future project qualifies for inclusion in an analysis of cumulative impacts only to the extent the future project is "both probable and sufficiently certain to allow for meaningful cumulative impact analysis" (*Id.* at 398; see *City of Long Beach v. Los Angeles Unified School Dist.* (2009) 176 Cal.App.4th 889, 902 [when "review[ing] the agency's decision to include information in the cumulative impacts analysis[,] ... [w]e determine whether inclusion was reasonable and practical"]).

Table 4.A: Summary of Related Projects

Project No.	Project Name	Location	Status	Project Description
City of Cypress				
1	Assisted Living & Memory Care (Westmont)	Northeast corner of Katella Avenue and Enterprise Drive	Under construction.	129-unit (152-bed) assisted living
2	Westmont Commercial Center	Northwest corner of Katella Avenue and Enterprise Drive	Approved	47,800 sf commercial space
3	Cypress City Center (13-Acre Site)	Northwest corner of Winners Circle and Katella Avenue	Approved	251 du apartments 20,800 sf retail 120-room hotel 10-screen multiplex movie theater
4	Amazon Facility Project	6400 Katella Avenue	Approved	145,004 sf last-mile delivery station
5	Islamic Center of Cypress Expansion	5900 Ball Road	Proposed	5,100 sf expansion
6	Club Pilates	10135 Valley View Street	Construction complete	1,500 sf commercial space
7	Ralph's Gas Station	Northeast corner of Bloomfield Street and Ball Road	Proposed	Gas station facility associated with Ralph's supermarket.
City of Los Alamitos				
8	Los Alamitos Center Central Plant	3751 Katella Avenue	Approved, currently in plan check	11,829 sf hospital facility
9	Chevron Station Rebuild	5100 Katella Avenue	Approved, currently in plan check	2,274 sf commercial space
10	Los Alamitos Luxury Apartments	3342 Cerritos Avenue	Approved	107 du apartments
11	Residential Development	3755 Farquhar Avenue	Construction complete	4 du condominiums
12	Oak Walk Residential Development	3311 Sausalito Street	Under construction	50 du condominiums
13	Fairfield Marriott Inn & Suites	10650 Los Alamitos Boulevard	Construction complete. Anticipated opening in February 2021.	108-room hotel

du = dwelling unit
sf = square foot/feet



LSA

FIGURE 4.1

LEGEND

- Project Site
- # - Related Projects

N

0 1000 2000
FEET

SOURCE: Bing Maps

Cypress Town Center
Related Projects

I:\CCP1603.08\G\Related_Projects.cdr (12/3/2020)

This page intentionally left blank

4.1 AESTHETICS

This section evaluates the existing visual and aesthetic resources on the project site and in the surrounding area, and evaluates the potential for changes in aesthetic character that could result from implementation of the proposed Cypress Town Center Project (proposed project). This section also evaluates the potential loss of existing visual resources, effects on public views, visual compatibility with existing uses, and light and glare impacts.

Information presented in this section is based on the building elevations and landscape plan included in the development plans; the City of Cypress (City) Municipal Code; and the Cypress Town Center and Commons Specific Plan 2.0 (Specific Plan, Approved June 5, 2018).

4.1.1 Scoping Process

The City of Cypress received four comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this Draft Environmental Impact Report (EIR). None of the comment letters included comments related to aesthetics.

4.1.2 Methodology

The assessment of aesthetic impacts is subjective by nature. This analysis attempts to identify and objectively examine factors that contribute to the perception of aesthetic impacts that would be caused by implementation of the proposed project. The potential aesthetic impacts of the proposed project have been assessed based on consideration of several factors, including scale, mass, proportion, and the concepts described below.

- **Scenic Resources:** Scenic resources are defined as natural or manmade elements that contribute to an area's scenic value and are visually pleasing. Scenic resources include landforms, vegetation, water, or adjacent scenery and may include a cultural modification to the natural environment. The degree to which these resources are present in a community is clearly subject to personal and cultural interpretation. However, it is possible to qualify certain resources as having aesthetic characteristics and establish general guidelines for assessing the aesthetic impacts of new development.

- **Scenic Vista:** A scenic vista is a viewpoint that provides expansive views of a highly valued landscape for the public's benefit. It is usually viewed from some distance away. Aesthetic components of a scenic vista include (1) scenic quality, (2) sensitivity level, and (3) view access. A scenic vista can be impacted in two ways: a development project can have visual impacts by either directly diminishing the scenic quality of the vista or by blocking the view corridors or "vista" of the scenic resource. Important factors in determining whether a proposed project would block scenic vistas include the project's proposed height, mass, and location relative to surrounding land uses and travel corridors.

- **Sensitive Views:** Sensitive views are generally those associated with designated vantage points and public recreational uses, but the term can be more broadly applied to encompass any

valued public vantage point. Sensitivity level has to do with the (1) intensity of use of a visual resource; (2) visibility of a visual resource; and (3) importance of the visual resource to users.

- **Scenic Corridors:** Scenic corridors are channels that facilitate movement (primarily by automobile, transit, bicycle, or foot) from one location to another with expansive views of natural landscapes and/or visually attractive manmade development. Scenic corridors analyzed under the California Environmental Quality Act (CEQA) typically include State-designated scenic highways and locally designated scenic routes.

- **Scenic Quality:** The scenic quality of a streetscape, building, group of buildings, or other manmade or natural feature that creates an overall impression of an area within an urban context. For example, a scenic vista along the boundary of a community, a pleasing streetscape with trees, and well-kept residences and yards are scenic resources that create a pleasing impression of an area. In general, concepts of scenic quality can be organized around four basic elements: (1) site utilization, (2) buildings and structures, (3) landscaping, and (4) signage. Adverse scenic quality effects can include the loss of aesthetic features or the introduction of contrasting features that could contribute to a decline in overall scenic quality.

- **Glare:** A continuous or periodic intense light that may cause eye discomfort or be temporarily blinding to humans.

- **Light Sources:** A device that produces illumination, including incandescent bulbs, fluorescent and neon tubes, halogen and other vapor lamps, and reflecting surfaces or refractors incorporated into a lighting fixture. Any translucent enclosure of a light source is considered to be part of the light source.

- **Regulations Governing Scenic Quality.** Visual impacts have been evaluated based on the project's consistency with design guidelines in the City's Specific Plan and development standards related to aesthetics in the City's Municipal Code.

- **Light and Glare.** The analysis of light and glare identifies the location of light-sensitive land uses and describes the existing ambient conditions on and in the vicinity of the project site. The analysis describes the proposed project's light and glare sources and the extent to which project lighting, including any potential illuminated signage, would spill off the project site onto adjacent light-sensitive areas. The analysis also describes the affected street frontages, the direction in which the light would be focused, and the extent to which the proposed project would illuminate sensitive land uses. The analysis also considers the potential for sunlight to reflect off of windows and building surfaces (glare) and the extent to which such glare would interfere with the operation of motor vehicles, aviation, or other activities. Glare can also be produced during evening and nighttime hours by artificial light sources, such as illuminated signage and vehicle headlights. Glare-sensitive uses generally include residences and transportation corridors (i.e., roadways).

4.1.3 Existing Environmental Setting

The project site is relatively flat and devoid of any vegetation except for the 60-foot (ft) wide strip of ornamental trees, palm trees, and grass/shrubs on the north portion of the project site (refer to Figure 3.3, Existing Conditions, in Chapter 3.0, Project Description). The existing parking lot currently includes asphalt paving and six overhead light poles. In the existing condition, direct access is only provided to the project site from Costco Way near the southeast corner of the project site. The project site is visible to the south by vehicles and pedestrians traveling along Katella Avenue and Winners Circle; from the east, the project site is visible by vehicles and pedestrians traveling along Walker Street. Although the project site is also visible from Siboney Street, that street is privately owned and, therefore, does not represent a public vantage point.

The project site is surrounded by a variety of racetrack, office, business park, commercial and retail services, and residential land uses as well as several religious facilities sites (refer to Figure 3.2, Project Vicinity Land Uses). Specifically, land uses surrounding the project site include the Los Alamitos Race Course to the north of the project site. Northeast of the site is a Goodwill Donation Center and Cypress Corporate Park. East of the site, beyond Winners Circle, are commercial and retail services, including a Costco warehouse outlet and restaurant uses. Katella Avenue, a six-lane arterial roadway, borders the project site to the south. Uses to the south include a vacant lot (recently approved for the Cypress City Center project) and commercial and office and business park uses in the City of Los Alamitos. A commercial center consisting of restaurant and commercial services uses, a 24 Hour Fitness, and a Marriott Hotel are to the west. The Barton Place Residential Project (now known as Ovation at Flora Park), and the Seventh-Day Adventist Church are immediately west of the commercial center.

Buildings in the vicinity of the project site include retail and commercial buildings that range from one to three stories and are approximately 15 to 50 ft in height. The project site is also near the Los Alamitos Race Course grandstand, which is approximately 75 ft tall.

According to the United States Census Bureau, the City of Cypress is located within the Los Angeles—Long Beach—Anaheim, CA Urbanized Area.[1] As described in the *State CEQA Guidelines* Section 15387 and defined by the United States Census Bureau, an "urbanized area" is a central city or a group of contiguous cities with a population of 50,000 or more people, together with adjacent densely populated areas having a population density of at least 1,000 people per square mile.[2] Because the City is located in an urbanized area, the project site is also located within an urbanized area. Further, surrounding land uses in the vicinity of the project site are representative of urban densities.

The project site is within the boundaries of the Cypress Town Center and Commons Specific Plan 2.0 (Specific Plan, Approved June 5, 2018). The Specific Plan Area is divided into six land use districts that govern the design and development of a mixed-use, sustainable community within the

[1] United States Census Bureau. 2010b. Los Angeles—Long Beach—Anaheim, CA Urbanized Area No. 51445. Website: https://www2.census.gov/geo/maps/dc10map/UAUC_RefMap/ua/ua51445_los_angeles--long_beach-- anaheim_ca/DC10UA51445_000.pdf (accessed November 11, 2020).

[2] United States Census Bureau. 2010a. 2010 Census Urban Area FAQs. Website: https://www.census.gov/programs-surveys/geography/about/faq/2010-urban-area-faq.html (accessed November 11, 2020).

154.4-acre Specific Plan Area. The project site is designated as part of the Town Center District (TCD) within the Specific Plan Area, which includes approximately 17.5 acres of land and permits a mixture of retail and entertainment uses, as well as hotel, residential, and commercial uses. Section 3.3, of the Specific Plan permits up to 250 multi-family housing units in the TCD (refer to Figure 3.5, Cypress Town Center and Commons Specific Plan 2.0 Land Use Plan).

The project site's General Plan land use designation was amended to "Specific Plan Area" with the approval of the Cypress Town Center and Commons Specific Plan 2.0 ballot measure. The project does not propose any amendments to the City's General Plan or Specific Plan. The Cypress Town Center and Commons Specific Plan 2.0 is the regulatory plan that designates the zoning for the project site. The project site's zoning designation was amended to "PC (Planned Community)" with the approval of the Cypress Town Center and Commons Specific Plan 2.0 ballot measure. Consistent with this zoning designation, the Specific Plan governs the permitted uses and development standards associated with the project site.

4.1.4 Regulatory Setting

This section will include applicable federal, State, regional, and City regulations.

4.1.4.1 Federal Regulations

No federal policies or regulations pertaining to aesthetics are applicable to the proposed project.

4.1.4.2 State Regulations

Caltrans Scenic Highway Program. The California Department of Transportation (Caltrans) Scenic Highway Program protects the natural scenic beauty of the State's highways and corridors through its designated scenic highways throughout the State. Caltrans defines a scenic highway as any freeway, highway, road, or other public right-of-way that traverses an area of exceptional scenic quality. Other considerations given to a scenic highway designation include how much of the natural landscape a traveler may see and the extent to which visual intrusions degrade the scenic corridor.

The project site is not located in the vicinity of a State Scenic Highway. According to the List of Eligible and Officially Designated State Scenic Highways published by Caltrans, the only State-designated Scenic Highway in the County is a 4-mile portion of State Route 91 (SR-91) from State Route 55 (SR-55) to east of the Anaheim city limits.[1] This portion of SR-91 is approximately 12 miles east of the project site. The nearest State highway that is eligible for official designation as a State Scenic Highway is a portion of Pacific Coast Highway (PCH or State Route 1 [SR-1]), which is located approximately 5 miles southwest of the project site.

4.1.4.3 Regional Regulations

No regional policies or regulations pertaining to aesthetics are applicable to the proposed project.

[1] California Department of Transportation (Caltrans). 2015, last modified July 2019. List of Eligible and Officially Designated State Scenic Highways. Website: https://dot.ca.gov/-/media/dot-media/programs/design/documents/desig-and-eligible-aug2019_a11y.xlsx (accessed November 11, 2020).

4.1.4.4 Local Regulations

Cypress Zoning Ordinance. The City of Cypress Zoning Ordinance (refer to Appendix I of the City's Municipal Code) includes regulations related to zoning and lighting that are applicable to the proposed project. The Zoning Ordinance identifies development standards for various land uses, which aim at regulating aesthetics and scenic quality. The Zoning Ordinance sets forth exterior lighting standards, including the following:

- **Section 3.11.060.A (Exterior Fixtures):** Lighting fixtures shall be architecturally compatible with the character of the surrounding structure(s) and shall be energy efficient. Fixtures shall be appropriate in height, intensity, and scale to the use they are serving.

- **Section 3.11.060.B (Intensity):** The level of parking lot light projected onto any ground or wall surface shall not be less than two (2) footcandles nor more than five (5) footcandles at the base of the light fixture. Building-mounted decorative lights shall not exceed five (5) footcandles measured five (5) feet from the light source.

- **Section 3.11.060.C (Security Lighting):** Security lighting shall provide a minimum of two (2) footcandles and a maximum of three (3) footcandles at the ground level of the entrance.

- **Section 3.11.060.D (Shielding of Light Source):** Where the light source is visible from outside the project boundary, shielding shall be required to reduce glare so that neither the light source nor its image from a reflective surface shall be directly visible from any point beyond the property line. This requirement shall not apply to traffic safety lighting or public street lighting.

- **Section 3.14.050.C.4 (Required Improvements for Off-Street Parking Areas):** Lighting as specified by the building official and police department, with special attention to directing light and glare away from adjacent properties. The level of parking lot light shall not exceed one footcandle at a site's property lines.

Cypress Town Center and Commons Specific Plan 2.0. The Specific Plan establishes development standards for land uses proposed as part of the project. As stated previously, the project site is designated as part of the Town Center District (TCD) within the Specific Plan Area. All multi-family residential buildings included as part of the proposed project would be consistent with development standards established in the Specific Plan, except where the Specific Plan references applicable design standards, if any, in the City's Zoning Ordinance. In addition to the exterior lighting standards included in the Zoning Ordinance provided above, the following development standard related to aesthetics included in the Specific Plan applies to the proposed project:

- **Maximum Structure Height:** 75 ft, excluding any roof-mounted equipment and/or architectural details.

4.1.5 Thresholds of Significance

The thresholds for aesthetics impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines* and the City's *Initial Study/Environmental Checklist*. The proposed project may be deemed to have a significant impact with respect to aesthetics if it would:

Threshold 4.1.1: **Have a substantial adverse effect on a scenic vista?**

Threshold 4.1.2: **Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?**

Threshold 4.1.3: **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?**

Threshold 4.1.4: **Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

4.1.6 Project Impacts

Threshold 4.1.1: **Would the project have a substantial adverse effect on a scenic vista?**

No Impact. A scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. Aesthetic components of a scenic vista generally include (1) scenic quality, (2) sensitivity level, and (3) view access. Although the City of Cypress does not provide a definition of scenic vistas, potential scenic vistas includes areas with views of the coastline, mountains, or other prominent scenic features that are considered significant visual resources for residents and businesses.

The City is almost entirely developed and neither the project site nor other properties in the project vicinity provide substantial views of any water bodies, mountains, hilltops, or any other significant visual resources. As such, the City has not designated any scenic corridors or scenic vistas within the City. The project site is located in a flat area and is surrounded by urban development, including the Los Alamitos Race Course to the north; a Goodwill Donation Center and Cypress Corporate Park to the northeast; commercial and retail services, including a Costco warehouse outlet and restaurant uses to the east; and a commercial center consisting of restaurant, commercial services, a 24 Hour Fitness, and a Marriott Hotel to the west of the project site. In addition, the proposed project has a relatively moderate scale (i.e., the height of the tallest structure, the three-story row townhomes, would be approximately 38 ft in height) and would not block the view of any natural features from the project site or surrounding areas. For these reasons, the development of the proposed project would not have a substantial adverse effect on a scenic vista. Therefore, there would be no impact, and no mitigation is required.

Threshold 4.1.2: **Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?**

No Impact. As previously discussed, the project site is not located in the vicinity of a State Scenic Highway. The nearest State-designated Scenic Highway to the project site is a 4-mile portion of SR-91 approximately 12 miles east of the project site. The nearest State highway that is eligible for official designation as a State Scenic Highway is a portion of PCH approximately 5 miles southwest of

the project site. Due to distance and intervening land uses, no portion of the project site or surrounding area is viewable from the officially designated portion of SR-91 or the eligible portion of PCH. Additionally, the project site consists of a paved parking lot and does not contain any buildings. Therefore, the project would not result in impacts related to the substantial damage of scenic resources within a State Scenic Highway. Therefore, there would be no impact, and no mitigation is required.

Threshold 4.1.3: **In non-urbanized areas, would the project 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 stated previously, the United States Census Bureau designated the project site as part of an urbanized area because the entire City is within the Los Angeles—Long Beach—Anaheim, CA Urbanized Area. The project site is designated as part of the Town Center District (TCD) within the Specific Plan Area, which includes approximately 17.5 acres of land and permits a mixture of retail and entertainment uses, as well as hotel, residential, and commercial uses. Section 3.3 of the Specific Plan permits up to 250 multi-family housing units in the TCD. The project site's General Plan land use designation was amended to "Specific Plan Area" with the approval of the Cypress Town Center and Commons Specific Plan 2.0 ballot measure. The project does not propose any amendments to the City's General Plan or Specific Plan. The Cypress Town Center and Commons Specific Plan 2.0 is the regulatory plan that designates the zoning for the project site. The project site's zoning designation was amended to "PC (Planned Community)" with the approval of the Cypress Town Center and Commons Specific Plan 2.0 ballot measure. Consistent with this zoning designation, the Specific Plan governs the permitted uses and development standards associated with the project site. No Specific Plan Amendment, General Plan Amendment, or zone change would be required for project implementation.

The proposed project involves the construction of a multi-family residential development consisting of 135 dwelling units. The proposed development would include two types of multi-family units: 56 two-story condominiums in four buildings arranged around motor courts in the center portion of the project site; and 79 three-story row townhomes located throughout the outer portions of the project site. The layout of the proposed project is a paseo-style community with a central large open space area that would include a pool and landscaped areas for other active and passive recreation uses. The proposed two-story condominiums would be approximately 28.5 ft in height, and the three-story row townhomes would be approximately 38 ft in height. The proposed heights of the project would be lower than the maximum height of 75 ft allowed under the Specific Plan. Additionally, the proposed project's building heights are similar to and compatible with the commercial, office, and business park uses that surround the project site.

The proposed project would also conform to all applicable development standards of the Specific Plan and the Zoning Ordinance. Therefore, the proposed project would not conflict with applicable zoning and other regulations governing scenic quality. As such, impacts would be less than significant, and no mitigation is required.

Threshold 4.1.4: Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

4.1.6.1 Construction

Less Than Significant Impact. Construction activities would occur only during daylight hours. Any construction-related illumination during evening and nighttime hours would be used for safety and security purposes only and would occur only for the duration required for the temporary construction process. Light resulting from construction activities would not substantially impact sensitive uses, substantially alter the character of surrounding uses or interfere with the performance of off-site activities. In addition, construction activities are not anticipated to result in flat, shiny surfaces that would reflect sunlight or cause other natural glare. Minor glare from sunlight on construction equipment and vehicle windshields is not anticipated to impact visibility in the area because (1) relatively few construction vehicles and pieces of construction equipment would be used on the project site, and (2) the construction site would be fenced and shielded from pedestrian and vehicular views. In addition, construction vehicles would not be operating at night and thus would not create nighttime sources of glare. Therefore, construction of the proposed project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area, and light and glare impacts associated with construction would be less than significant. No mitigation is required.

4.1.6.2 Operation

Less Than Significant Impact. In the existing condition, the project site produces light and glare from a lighted surface parking area due to existing light poles that are approximately 30 ft tall. Existing sources of light in the project vicinity include headlights on nearby roadways, building facade and interior lighting, pole-mounted lighting in the parking areas of adjacent developments, and lighting associated with the Los Alamitos Race Course. The adjacent commercial center with a hotel and gym west of the project site and commercial and retail services, including a Costco warehouse outlet and restaurant uses to the east of the project site, currently emit light and glare along Katella Avenue. Lighting from existing distant development within the City also contributes to the background lighting in the project vicinity.

New light sources created by the proposed project would include interior and exterior building lighting, security lighting, and parking lot lighting. The proposed lighting sources would be similar to other lighting sources in the project vicinity and would not generate artificial light levels that are out of character with the surrounding area, which is densely developed and characterized by a high degree of human activity and ambient light during the day and night.

All project lighting is required to meet all applicable lighting standards in the Cypress Zoning Ordinance. As required by Section 3.11.060.A (Exterior Features) of the Zoning Ordinance, lighting fixtures shall be architecturally compatible with the character of the surrounding structure(s) and shall be energy efficient. Fixtures shall be appropriate in height, intensity, and scale to the use they are serving, In accordance with Section 3.11.060.B (Intensity), the level of parking lot light projected onto any ground or wall surface shall not be more than 5 footcandles at the base of the light fixture and building-mounted decorative lights shall not exceed 5 footcandles measured 5 ft from the light source. In accordance with Section 3.11.060.C (Security Lighting), security lighting shall provide a

maximum of 3 footcandles at the ground level of the project entrances. Pursuant to Section 3.11.060.D (Shielding of Light Source), where a project light source is visible from outside the project boundary (other than public street lighting), the light source shall be shielded to reduce glare so that neither the light source nor its image from a reflective surface shall be directly visible from any point beyond the property line. Finally, as required by Section 3.14.050.C.4 (Required Improvements for Off-Street Parking Areas), the level of parking lot light shall not exceed 1 footcandle at the boundaries of the project site.

Although the proposed project would increase the overall intensity of on-site land uses and associated lighting, the increase in lighting would not result in substantial increases in light intensity at off-site locations. In addition, light intensity diminishes rapidly as an observer moves away from the light source. As such, the intensity of project-related lighting would be concentrated on site with little potential to create perceptible changes in ambient lighting intensity at off-site, light-sensitive locations.

Daytime glare can result from natural sunlight reflecting from a shiny surface that would interfere with the performance of an off-site activity, such as the operation of a motor vehicle. Reflective surfaces can be associated with window glass and polished surfaces. The proposed buildings would incorporate a variety of building materials, which would primarily be non-reflective materials (i.e., neutral colors and a variety of materials, such as tile, cement, plaster, and wood). Therefore, these materials would not have the potential to produce a substantial degree of glare.

Nighttime lighting and glare sources from the proposed project could also include lighting from interior and exterior building lighting, security lighting, parking lot lighting, and vehicle headlights. The nighttime glare produced by these sources would be similar to the existing nighttime glare produced by the surrounding commercial/retail, residential and hotel uses and would not result in enough glare to be considered substantial or affect nighttime view because lighting would be required to meet all applicable lighting standards in the Cypress Zoning Ordinance as discussed above.

For these reasons, the proposed project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the surrounding urban area, and project impacts would be less than significant. No mitigation is required.

4.1.7 Level of Significance Prior to Mitigation

The proposed project would not result in any significant impacts related to aesthetics, and no mitigation is required.

4.1.8 Regulatory Compliance Measures and Mitigation Measures

No mitigation measures or regulatory compliance measures are required.

4.1.9 Level of Significance after Mitigation

The proposed project would not result in any significant impacts related to aesthetics.

4.1.10 Cumulative Impacts

As defined in Section 15130 of the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for aesthetics. The cumulative impact area for aesthetics related to the proposed project is the City of Cypress. As shown in Table 4.A, Summary of Related Projects, in Chapter 4.0, Existing Setting, Environmental Analysis, Impacts, and Mitigation Measures, two residential projects are approved or under construction within the City, including the Cypress City Center project directly south of the proposed project site. Each of these projects, as well as all proposed projects in the City, have been or would be subject to their own consistency analysis for policies and regulations governing scenic quality and would be reviewed for consistency with any applicable Specific Plan goals and policies and Zoning Code development standards. If there were any potential for significant impacts to aesthetics, appropriate mitigation measures would be identified to reduce and/or avoid impacts related to aesthetics.

As described above in Section 4.1.6, Project Impacts, implementation of the proposed project would not result in significant impacts related to aesthetics. The proposed project and all related projects are required to adhere to City and State regulations designed to reduce and/or avoid impacts related to aesthetics. With compliance with these regulations, cumulative impacts related to aesthetics would be less than significant. Therefore, implementation of the proposed project would not result in a significant cumulative impact related to aesthetics.

4.2 AIR QUALITY

This section describes the potential air quality impacts for the Cypress Town Center Project (proposed project) and specifically addresses short-term impacts during construction, including fugitive dust and equipment emissions, long-term emissions associated with operation of the proposed project (including vehicular travel and stationary equipment), and how potential impacts correlate to human health.

4.2.1 Scoping Process

The City of Cypress (City) received four comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this EIR. No comment letter(s) included comments related to Air Quality.

4.2.2 Methodology

The proposed project would result in criteria pollutant emissions from construction and operational sources. Construction activities would generate emissions at the site from off-road construction equipment, and on roadways as a result of construction-related truck hauling, vendor deliveries, and worker commuting. Operational activities would also generate emissions at the project site from miscellaneous on-site sources, such as natural gas combustion for cooking, heating, and landscaping equipment, and from operational-related traffic. This analysis utilized the California Emissions Estimator Model (CalEEMod) version 2016.3.2 to quantify the criteria pollutant emissions for both construction and operation of the proposed project. The maximum daily emissions are calculated for the criteria pollutants. The CalEEMod output is contained in Appendix B of this EIR.

Guidance from the United States Environmental Protection Agency (USEPA), the California Air Resources Board (CARB), and the South Coast Air Quality Management District (SCAQMD), the *Traffic Operations Assessment* (dated September 16, 2020) prepared by Ganddini Group, Inc., and emissions modeling software (specifically, CalEEMod[1]) were used to calculate the criteria pollutant emissions from the proposed project.

CalEEMod is a statewide program designed to calculate both criteria and greenhouse gas (GHG) emissions from development projects in California. This model was initially developed under the auspices of the SCAQMD and received input from other California air quality districts. It is currently supported statewide for use in quantifying the emissions associated with development projects undergoing environmental review. CalEEMod utilizes widely accepted models for emission estimates combined with appropriate default data that can be used if site-specific information is not available. These models and default estimates use sources such as the USEPA AP-42 emission factors; CARB's on-road and off-road equipment emission models, such as the EMission FACtor model (EMFAC) and the Off-road Emissions Inventory Program model (OFFROAD); and studies commissioned by California agencies, such as the California Energy Commission (CEC) and the California Department of Resources Recycling and Recovery (CalRecycle).

[1] California Air Pollution Control Officers Association (CAPCOA). 2017. California Emissions Estimator Model. Version 2016.3.2. Website: http://www.caleemod.com/ (accessed November 2020).

CalEEMod is based on CARB-approved off-road and on-road mobile-source emission factor models (OFFROAD2011 and EMFAC2014, respectively). It is designed to calculate construction and operational emissions for land development projects and allows for the input of project-specific information. OFFROAD2011[1] is an emissions factor model used to calculate emission rates from off-road mobile sources (e.g., construction equipment, agricultural equipment). EMFAC2014[2] is a USEPA approved emissions factor model used to calculate emissions rates from on-road vehicles (e.g., passenger vehicles, and haul trucks).

CalEEMod provides a platform to calculate both construction emissions and operational emissions from a development project. It calculates both the daily maximum and annual average for criteria pollutants as well as total or annual GHG emissions. The model also provides default values for water and energy use. Specifically, the model performs the following calculations:

- Short-term construction emissions associated with demolition, site preparation, underground utility installation, grading, building, coating, and paving from off-road construction equipment; on-road mobile equipment associated with workers, vendors, delivery, and hauling; fugitive dust associated with grading, demolition, truck loading, and roads; and volatile emissions of reactive organic gases (ROGs) from architectural coating and paving.

- Operational emissions associated with the fully built-out development project, such as on-road mobile vehicle traffic generated by the land uses, fugitive dust associated with roads, volatile emissions of ROGs from architectural coatings, off-road emissions from landscaping equipment, volatile emissions of ROGs from consumer products and cleaning supplies, natural gas usage in the buildings, electricity usage in the buildings, water usage by the land uses, and solid waste disposal by the land uses.

In addition, CalEEMod contains default values and existing regulation methodologies to use in each specific local air quality district region. Appropriate statewide default values can be utilized if regional default values are not defined. This analysis utilized project-specific inputs and relevant model default factors for the Orange County (County) area, which is within the SCAQMD jurisdiction for the emissions inventory, consistent with SCAQMD requirements.

The CalEEMod output files for the proposed project are provided for reference in Appendix B.

4.2.3 Existing Environmental Setting

The City is part of the South Coast Air Basin (SCAB) and is under the jurisdiction of SCAQMD. Background information about air pollutants and health effects, climate, meteorological conditions, and regional air quality conditions in the SCAB and local air quality conditions in the vicinity of the project site is provided below.

---

1 California Air Resources Board (CARB). 2019b. Off Road Mobile Source Emission Factors. Website: https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-modeling-tools (accessed November 2020).

2 CARB. 2019a. EMFAC2014 Web Database: 2017 Web Database. Website: https://www.arb.ca.gov/emfac/2014 (accessed November 2020).

4.2.3.1 Air Pollutants and Health Effects

Both State and federal governments have established health-based ambient air quality standards (AAQS) for six criteria air pollutants:[1] carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and suspended particulate matter (PM). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Long-term exposure to elevated levels of criteria pollutants may result in adverse health effects. However, emission thresholds established by an air quality district are used to manage total regional emissions within an air basin based on the air basin's attainment status for criteria pollutants. These emission thresholds were established for individual projects that would contribute to regional emissions and pollutant concentrations and could adversely affect or delay the projected attainment target year for certain criteria pollutants.

Because of the conservative nature of the thresholds and the basin-wide context of individual project emissions, there is no known direct correlation between a single project and localized air quality-related health effects. One individual project that generates emissions exceeding a threshold does not necessarily result in adverse health effects for residents in the project vicinity. This condition is especially true when the criteria pollutants exceeding thresholds are those with regional effects, such as ozone precursors like nitrogen oxides (NO_x) and volatile organic compounds (VOCs).

Occupants of certain types of facilities such as schools, daycare centers, parks and playgrounds, hospitals, and nursing and convalescent homes are considered to be more sensitive than the general public to air pollutants because these population groups have increased susceptibility to respiratory disease. Persons engaged in strenuous work or exercise also have increased sensitivity to poor air quality. Residential areas are considered more sensitive to air quality conditions, compared to commercial and industrial areas, because people generally spend longer periods of time at their residences, with greater associated exposure to ambient air quality conditions. Recreational uses are also considered sensitive compared to commercial and industrial uses due to greater exposure to ambient air quality conditions associated with exercise.

Ozone. Rather than being directly emitted, ozone (smog) is formed by photochemical reactions between NO_x and VOCs. Ozone is a pungent, colorless gas. Elevated ozone concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors such as the sick, elderly, and young children. Ozone levels peak during the summer and early fall months.

Particulate Matter. Particulate matter is the term used for a mixture of solid particles and liquid droplets found in the air. Coarse particles are those that are 10 microns or less in diameter, or PM_{10}. Fine, suspended particulate matter with an aerodynamic diameter of 2.5 microns or less, or $PM_{2.5}$, is not readily filtered out by the lungs. Nitrates, sulfates, dust, and combustion particulates are major components of PM_{10} and $PM_{2.5}$. These small particles can be directly emitted into the atmosphere as

[1] United States Environmental Protection Agency (USEPA). 2014. Criteria pollutants are defined as those pollutants for which the federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health.

byproducts of fuel combustion; through abrasion, such as tire or brake lining wear; or through fugitive dust (wind or mechanical erosion of soil). They can also be formed in the atmosphere through chemical reactions. Particulates may transport carcinogens and other toxic compounds that adhere to the particle surfaces and can enter the human body through the lungs.

Carbon Monoxide. CO is formed by the incomplete combustion of fossil fuels, almost entirely from automobiles. It is a colorless, odorless gas that can cause dizziness, fatigue, and impairments to central nervous system functions. CO passes through the lungs into the bloodstream, where it interferes with the transfer of oxygen to body tissues.

Nitrogen Dioxide. NO_2 is a reddish brown gas that is a byproduct of combustion processes. Automobiles and industrial operations are the main sources of NO_2. Aside from its contribution to ozone formation, NO_2 also contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition. NO_2 may be visible as a coloring component on high pollution days, especially in conjunction with high ozone levels. NO_2 decreases lung function and may reduce resistance to infection.

Sulfur Dioxide. SO_2 is a colorless, irritating gas formed primarily from incomplete combustion of fuels containing sulfur. Industrial facilities also contribute to gaseous SO_2 levels in the region. SO_2 irritates the respiratory tract, can injure lung tissue when combined with fine particulate matter, and reduces visibility and the level of sunlight.

Lead. Leaded gasoline (phased out in the United States beginning in 1973), paint (on older houses and cars), smelters (metal refineries), and the manufacture of lead storage batteries have been the primary sources of lead released into the atmosphere. Lead has multiple adverse neurotoxic health effects, and children are at special risk. Some lead-containing chemicals cause cancer in animals. Lead levels in the air have decreased substantially since leaded gasoline was eliminated. Ambient lead concentrations are only monitored on an as-warranted, site-specific basis in California. On October 15, 2008, the USEPA strengthened the national ambient air quality standard for lead by lowering it from 1.5 to 0.15 micrograms per cubic meter ($\mu g/m^3$). The USEPA revised the monitoring requirements for lead in December 2010. These requirements focus on airports and large urban areas, resulting in an increase in 76 monitors nationally.

Volatile Organic Compounds. VOCs (also known as reactive organic gases [ROGs] and reactive organic compounds [ROCs]) are formed from the combustion of fuels and the evaporation of organic solvents. VOCs are not defined as criteria pollutants, however, because VOCs accumulate in the atmosphere more quickly during the winter, when sunlight is limited and photochemical reactions are slower, they are a prime component of the photochemical smog reaction. There are no attainment designations for VOCs.

Vinyl Chloride. Vinyl Chloride (VC) is a chemical building block, or monomer, used in the production of polyvinyl chloride (PVC). PVC is used to make materials, including pipes, used in the construction, packaging, electrical, and transportation industries. Major sources of VC include PVC production and fabrication facilities and, at the other end of PVC's lifecycle, as PVC deteriorates, landfills and publicly owned treatment works. VC is carcinogenic. VC is primarily of concern as a carcinogenic

toxic air contaminant (TAC) at hot spots. It is regulated as a TAC to allow implementation of health-protective control measures at levels below the ambient standard.

Hydrogen Sulfide. Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. In addition, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation. Breathing H_2S at levels above the State standard could result in exposure to a very disagreeable odor.

For the proposed project, six criteria pollutants were evaluated—NO_2, CO, SO_2, PM_{10}, $PM_{2.5}$, and O_3—using VOCs[1] and NO_X as surrogates. These pollutants were analyzed because they are considered to be pollutants of concern based on the type of emission sources associated with construction and operation of the proposed project, and are thus included in this assessment. Because the ambient concentrations of lead, VC, H_2S, and visibility-reducing particles are very low and the proposed project would not include industrial production facilities or generate substantial amounts of exhaust, lead, VC, H_2S, and visibility-reducing particles are not considered to be pollutants of concern for the proposed project and are not analyzed below.

Toxic Air Contaminants. In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated by the USEPA and the CARB. Some examples of TACs include benzene, butadiene, formaldehyde, and hydrogen sulfide. The identification, regulation, and monitoring of TACs is relatively recent compared to that for criteria pollutants.

TACs do not have AAQS, but are regulated by the USEPA, CARB, and the SCAQMD. In 1998, the CARB identified particulate matter from diesel-fueled engines as a TAC. The CARB has completed a risk management process that identified potential cancer risks for a range of activities using diesel-fueled engines.[2] High-volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic (e.g., distribution centers and truck stops) were identified as posing the highest risk to adjacent receptors. Other facilities associated with increased risk include warehouse distribution centers, large retail or industrial facilities, high-volume transit centers, and schools with a high volume of bus traffic. Health risks from TACs are a function of both concentration and duration of exposure.

Unlike TACs emitted from industrial and other stationary sources noted above, most diesel particulate matter is emitted from mobile sources—primarily “off-road” sources such as construction and mining equipment, agricultural equipment, and truck-mounted refrigeration units, as well as “on-road” sources such as trucks and buses traveling on freeways and local roadways.

Although not specifically monitored, recent studies indicate that exposure to diesel particulate matter may contribute significantly to a cancer risk (a risk of approximately 500 to 700 in 1,000,000)

---

1 The emissions of VOCs and ROGs are essentially the same for the combustion emission sources that are considered in this EIR. This EIR will typically refer to organic emissions as VOCs.

2 CARB. 2000. Stationary Source Division and Mobile Source Control Division. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.* October.

that is greater than all other measured TACs combined.[1] The technology for reducing diesel particulate matter emissions from heavy-duty trucks is well established, and both State and federal agencies are moving aggressively to regulate engines and emission control systems to reduce and remediate diesel emissions. The CARB anticipates that by 2020, average statewide diesel particulate matter concentrations will decrease by 85 percent from levels in 2000 with full implementation of the CARB's Diesel Risk Reduction Plan,[2] meaning that the statewide health risk from diesel particulate matter is expected to decrease from 540 cancer cases in 1,000,000 to 21.5 cancer cases in 1,000,000.

Table 4.2.A summarizes the sources and health effects of air pollutants discussed in this section. Table 4.2.B presents a summary of both California Ambient Air Quality Standards (CAAQS), and National Ambient Air Quality Standards (NAAQS).

Table 4.2.A: Sources and Health Effects of Air Pollutants

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust • Natural events, such as decomposition of organic matter	• Reduced tolerance for exercise • Impairment of mental function • Impairment of fetal development • Aggravation of some heart diseases (angina) • Death at high levels of exposure
Nitrogen Dioxide (NO_2)	• Motor vehicle exhaust • High temperature stationary combustion • Atmospheric reactions	• Aggravation of respiratory illness • Reduced visibility • Reduced plant growth • Formation of acid rain
Ozone (O_3)	• Atmospheric reaction of organic gases with nitrogen oxides in sunlight	• Aggravation of respiratory and cardiovascular diseases • Irritation of eyes • Impairment of cardiopulmonary function • Plant leaf injury
Lead (Pb)	• Contaminated soil	• Impairment of blood functions and nerve construction • Behavioral and hearing problems in children
Suspended Particulate Matter ($PM_{2.5}$ and PM_{10})	• Stationary combustion of solid fuels • Construction activities • Industrial processes • Atmospheric chemical reactions	• Reduced lung function • Aggravation of the effects of gaseous pollutants • Aggravation of respiratory and cardiorespiratory diseases • Increased cough and chest discomfort • Soiling • Reduced visibility
Sulfur Dioxide (SO_2)	• Combustion of sulfur-containing fossil fuels • Smelting of sulfur-bearing metal ores Industrial processes	• Aggravation of respiratory diseases (asthma, emphysema) • Reduced lung function • Irritation of eyes • Reduced visibility • Plant injury • Deterioration of metals, textiles, leather, finishes, and coatings, etc.

Source: California Air Resources Board (CARB). Common Air Pollutants (2020a) (Website: https://ww2.arb.ca.gov/resources/common-air-pollutants (accessed November 2020).

[1] CARB. 2000. Stationary Source Division and Mobile Source Control Division. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.* October.

[2] Ibid.

Table 4.2.B: Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]		Federal Standards[b]		
		Concentration[c]	Method[d]	Primary[c,e]	Secondary[c,f]	Method[g]
Ozone (O_3)[h]	1-Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.07 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM_{10})[i]	24-Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		–		
Fine Particulate Matter ($PM_{2.5}$)[i]	24-Hour	-		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3		
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	–	Non-Dispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23 mg/m^3)		35 ppm (40 mg/m^3)		
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		–	–	
Nitrogen Dioxide (NO_2)[j]	Annual Arithmetic Mean	0.03 ppm (57 µg/m^3)	Gas Phase Chemi-luminescence	53 ppb (100 µg/m^3)	Same as Primary Standard	Gas Phase Chemi-luminescence
	1-Hour	0.18 ppm (339 µg/m^3)		100 ppb (188 µg/m^3)	-	
Lead (Pb)[l,m]	30-Day Average	1.5 µg/m^3	Atomic Absorption	–	–	High-Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 µg/m^3 (for certain areas)[l]	Same as Primary Standard	
	Rolling 3-Month Average[i]	–		0.15 µg/m^3		
Sulfur Dioxide (SO_2)[k]	24-Hour	0.04 ppm (105 µg/m^3)	Ultraviolet Fluorescence	0.14 ppm (for certain areas)	–	Ultraviolet Fluorescence; Spectro-photometry (Pararosaniline Method)
	3-Hour	–		–	0.5 ppm (1300 µg/m^3)	
	1-Hour	0.25 ppm (655 µg/m^3)		75 ppb (196 µg/m^3)[k]	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas)[k]	–	
Visibility-Reducing Particles[l]	8-Hour	See footnote n	Beta Attenuation and Transmittance through Filter Tape	No Federal Standards		
Sulfates	24-Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[j]	24-Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

Source: CARB. Ambient Air Quality Standards (2016). (Website: https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards; accessed November 2020).

Table notes are provided on the following page.

[a] California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact USEPA for further clarification and current national policies.

[c] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[d] Any equivalent measurement method which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.

[e] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[f] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[g] Reference method as described by the USEPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the USEPA.

[h] On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[i] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24- hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[j] To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[k] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

[l] The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[m] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

[n] In 1989, the CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

°C = degrees Celsius
µg/m^3 = micrograms per cubic meter
CARB = California Air Resources Board
mg/m^3 = milligrams per cubic meter
ppb = parts per billion
ppm = parts per million
USEPA = United States Environmental Protection Agency

4.2.3.2 Climate/Meteorology

Air quality in the SCAB is affected not only by various emission sources (mobile and industry, etc.), but also by atmospheric conditions such as wind speed, wind direction, temperature, and rainfall, etc. The combination of topography, low mixing height, abundant sunshine, and emissions from the second-largest urban area in the United States gives the SCAB the worst air pollution problem in the nation.

The SCAB is a coastal plain characterized by connecting broad valleys and low hills, delineated by the Pacific Ocean as its southwestern border, and fringed by high mountains that form the inland portion of its border. The region lies in the semi-permanent high-pressure zone of the eastern Pacific Ocean. The resulting climate is mild and tempered by cool ocean breezes. It maintains moderate temperatures and comfortable humidity, and precipitation is typically limited to a few storms during the winter wet season. This weather pattern is fairly predictable. However, periods of extremely hot weather, winter storms, or Santa Ana winds do exist.

Although the SCAB has a semi-arid climate, air near the earth's surface is generally moist due to the presence of a shallow marine layer. With very low average wind speeds, there is a limited ability to disperse air contaminants horizontally. The typical wind flow pattern fluctuates only with occasional winter storms or strong northeasterly Santa Ana winds from the mountains and deserts northeast of the SCAB. Summer wind flow patterns represent worst-case conditions for air pollution, as this is a period of higher temperatures and more sunlight, which results in ozone (O_3) formation.

Air pollutant emissions within the SCAB are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawnmowers, agricultural fields, landfills, and some consumer products. Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles.

4.2.3.3 Attainment Status

The CARB is required to designate areas of the State as attainment, nonattainment, or unclassified for all State standards. An *attainment* designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A *nonattainment* designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. An *unclassified* designation signifies that data do not support either an attainment or nonattainment status. The California Clean Air Act (CCAA) divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The USEPA designates areas for O_3, CO, and NO_2 as either: does not meet the primary standards (or cannot be classified), or better than national standards. For SO_2, areas are designated as: does not meet the primary standards, does not meet the secondary standards, cannot be classified, or better than national standards.

Table 4.2.C provides a summary of the attainment status for the SCAB with respect to the NAAQS and the CAAQS.

Table 4.2.C: Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
O_3 1 hour	Nonattainment	Extreme Nonattainment
O_3 8 hour	Nonattainment	Extreme Nonattainment
PM_{10}	Nonattainment	Attainment/Maintenance
$PM_{2.5}$	Nonattainment	Serious Nonattainment
CO	Attainment	Attainment/Maintenance
NO_2	Attainment	Attainment/Maintenance
SO_2	N/A	Attainment/Unclassified
Lead	Attainment	Attainment[1]
All others	Attainment/Unclassified	Attainment/Unclassified

Source: SCAQMD. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) Attainment Status for South Coast Air Basin (2018b) (Website: http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf; accessed November 2020).
[1] Except in Los Angeles County.
CARB = California Air Resources Board
CO = carbon monoxide
N/A = not applicable
NO_2 = nitrogen dioxide
O_3 = ozone
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SCAQMD = South Coast Air Quality Management District
SO_2 = sulfur dioxide

4.2.3.4 Regional Air Quality

The Southern California region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild and tempered by cool sea breezes. The usually mild climate is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. Meteorological conditions and topography affect the dispersion of pollutants and make the SCAB susceptible to air pollution. The extent and severity of the air pollution problem in the SCAB is also affected by manmade influences, such as development patterns and lifestyle.

The greatest air pollution impacts throughout the SCAB occur from June through September. This condition is generally attributed to the high emissions, as well as light winds and shallow vertical atmospheric mixing, which reduce dispersion. Pollutant concentrations in the SCAB vary with location, season, and time of day. O_3 concentrations, for example, tend to be higher in the inland valleys than either along the coast or in the far inland areas of the SCAB and adjacent desert. Over the past 30 years, substantial progress has been made in reducing air pollution levels in Southern California. However, the SCAB still fails to meet federal standards for O_3 and $PM_{2.5}$.

4.2.3.5 Local Air Quality

Air quality monitoring stations are located throughout the nation and are maintained by the local air pollution control district and State air quality regulating agencies. The SCAQMD, together with the CARB, maintains ambient air quality monitoring stations in the SCAB. The air quality monitoring station closest to the project site is the 1630 W. Pampas Lane ambient air quality monitoring station in Anaheim. The air quality trends from this station are used to represent the ambient air quality in the vicinity of the project site. Ambient air quality data in the vicinity of the project site from 2017 to 2019 are shown in Table 4.2.D. SO_2 is not monitored at the Anaheim station; therefore, the next closest available SO_2 data at the 2850 Mesa Verde Drive East ambient air quality monitoring station in Costa Mesa is included in Table 4.2.D.

Pollutant monitoring results for the years 2017 to 2019 at the Anaheim 1630 W. Pampas Lane ambient air quality monitoring station indicate that air quality in the project vicinity has generally been good. As indicated in the monitoring results, no violations of the federal PM_{10} standard occurred during the 3-year period. The State PM_{10} standard was exceeded five times in 2017, twice in 2018, and four times in 2019. $PM_{2.5}$ levels exceeded the federal standard seven times in 2017, seven times in 2018, and four times in 2019. The State 1-hour ozone standard was exceeded once in 2018 and once in 2019. In addition, the State and federal 8-hour ozone standards were each exceeded four times in 2017, once in 2018, and once in 2019. The CO, SO_2, and NO_2 standards were also not exceeded in this area during the 3-year period.

4.2.3.6 Surrounding Uses

To the north of the project site is a Goodwill Donation Center. The Los Alamitos Race Course is immediately northwest of the project site. Cypress Corporate Park, which consists of four two-story office/manufacturing/warehouse buildings, is located northeast of the project site. Cypress Business & Professional Center, a two-story office building, is located immediately east of the project site. Costco and a vacant parking lot approved for the Cypress City Center mixed-use development are immediately south of the project site, and surface parking lots and vacant land associated with the Los Alamitos Race Course are immediately west of the project site.

The Air Quality Element of the City's General Plan states that sensitive populations are more susceptible to the effects of air pollution than the general population. Sensitive populations (i.e., sensitive receptors) that are in proximity to localized sources of toxics and CO are of particular concern. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes.

The closest sensitive receptors include the single-family residences as close as 1,070 feet (ft) south of the project site. Other surrounding land uses (such as commercial uses) are not considered sensitive receptors.

Table 4.2.D: Ambient Air Quality at the Anaheim 1630 W. Pampas Lane Monitoring Station

Pollutant	Standard	2017	2018	2019
Carbon Monoxide (CO)				
Maximum 1-hour concentration (ppm)		2.5	2.3	2.4
Number of days exceeded:	State: > 20 ppm	0	0	0
	Federal: > 35 ppm	0	0	0
Maximum 8-hour concentration (ppm)		2.1	1.9	1.3
Number of days exceeded:	State: > 9 ppm	0	0	0
	Federal: > 9 ppm	0	0	0
Ozone (O_3)				
Maximum 1-hour concentration (ppm)		0.090	0.112	0.096
Number of days exceeded:	State: > 0.09 ppm	0	1	1
Maximum 8-hour concentration (ppm)		0.076	0.071	0.082
Number of days exceeded:	State: > 0.07 ppm	4	1	1
	Federal: > 0.08 ppm	4	1	1
Coarse Particulates (PM_{10})				
Maximum 24-hour concentration (µg/m^3)		95.7	94.6	127.6
Number of days exceeded:	State: > 50 µg/m^3	5	2	4
	Federal: > 150 µg/m^3	0	0	0
Annual arithmetic average concentration (µg/m^3)		26.9	27.7	24.4
Exceeded for the year:	State: > 20 µg/m^3	Yes	Yes	Yes
	Federal: > 50 µg/m^3	No	No	No
Fine Particulates ($PM_{2.5}$)				
Maximum 24-hour concentration (µg/m^3)		56.2	68.0	37.1
Number of days exceeded:	Federal: > 35 µg/m^3	7	7	4
Annual arithmetic average concentration (µg/m^3)		ND	12.3	9.4
Exceeded for the year:	State: > 12 µg/m^3	ND	Yes	No
	Federal: > 12 µg/m^3	ND	Yes	No
Nitrogen Dioxide (NO_2)				
Maximum 1-hour concentration (ppm)		0.081	0.066	0.059
Number of days exceeded:	State: > 0.250 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.014	0.014	0.013
Exceeded for the year:	Federal: > 0.053 ppm	No	No	No
Sulfur Dioxide (SO_2)[1]				
Maximum 1-hour concentration (ppm)		0.0019	ND	ND
Number of days exceeded:	State: > 0.25 ppm	0	ND	ND
Maximum 3-hour concentration (ppm)		ND	ND	ND
Number of days exceeded:	Federal: > 0.50 ppm	ND	ND	ND
Maximum 24-hour concentration (ppm)		0.0005	ND	ND
Number of days exceeded:	State: > 0.04 ppm	0	ND	ND
	Federal: > 0.14 ppm	0	ND	ND
Annual arithmetic average concentration (ppm)		0.0001	ND	ND
Exceeded for the year:	Federal: > 0.030 ppm	No	ND	ND

Sources: CARB. Top Four. (2020b) (Website: https://www.arb.ca.gov/adam/topfour/topfour1.php; accessed November 2020); USEPA. Outdoor Air Quality Data, Monitor Values Report (2020) (Website: https://www.epa.gov/outdoor-air-quality-data/monitor-values-report; accessed November 2020).

[1] Data taken at the 2850 Mesa Verde Drive East, Costa Mesa, ambient air quality monitoring station.

µg/m^3 = micrograms per cubic meter
ppm = parts per million
CARB = California Air Resources Board
USEPA = United States Environmental Protection Agency
ND = No data. There was insufficient (or no) data to determine the value.

4.2.4 Regulatory Setting

The USEPA and the CARB regulate direct emissions from motor vehicles. The SCAQMD is the regional agency primarily responsible for regulating air pollution emissions from stationary sources (e.g., factories) and indirect sources (e.g., traffic associated with new development), as well as monitoring ambient pollutant concentrations.

4.2.4.1 Federal Regulations

The 1970 Federal Clean Air Act authorized the establishment of national health-based air quality standards and also set deadlines for their attainment. The Federal Clean Air Act Amendments of 1990 changed deadlines for attaining national standards as well as the remedial actions required of areas of the nation that exceed the standards. Under the federal Clean Air Act (CAA), State, and local agencies in areas that exceed the national standards are required to develop State Implementation Plans to demonstrate how they will achieve the national standards by specified dates.

4.2.4.2 State Regulations

California Clean Air Act. In 1988, the California Clean Air Act (CCAA) required that all air quality districts in the State endeavor to achieve and maintain CAAQS for carbon monoxide (CO), ozone (O_3), sulfur dioxide (SO_2), and nitrogen dioxide (NO_2) by the earliest practical date. The California Clean Air Act provides districts with authority to regulate indirect sources and mandates that air quality districts focus particular attention on reducing emissions from transportation and area-wide emission sources. Each nonattainment district is required to adopt a plan to achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors. A Clean Air Plan shows how a district would reduce emissions to achieve air quality standards. Generally, the State standards for these pollutants are more stringent than the national standards.

California Air Resources Board. The CARB is the State's "clean air agency." The CARB's goals are to attain and maintain healthy air quality, protect the public from exposure to toxic air contaminants, and oversee compliance with air pollution rules and regulations.

Assembly Bill 2588 Air Toxics "Hot Spots" Information and Assessment Act. Under Assembly Bill (AB) 2588, stationary sources of air pollutants are required to report the types and quantities of certain substances that their facilities routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, identify facilities having localized impacts, determine health risks, and notify nearby residents of significant risks.

The California Air Resources Board Handbook. CARB has developed an Air Quality and Land Use Handbook[1] (CARB Handbook) (2005b), which is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. According to the CARB Handbook, recent air pollution studies have shown an association between respiratory and other non-cancer health effects and proximity to high traffic roadways. Other studies have shown that diesel exhaust and other cancer-causing

[1] CARB. 2005b. *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB Handbook). April.

chemicals emitted from cars and trucks are responsible for much of the overall cancer risk from airborne toxics in California. The CARB Handbook recommends that county and city planning agencies strongly consider proximity to these sources when finding new locations for "sensitive" land uses such as homes, medical facilities, daycare centers, schools, and playgrounds.

Land use designations with air pollution sources of concern include freeways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners, and large gasoline service stations. Key recommendations in the CARB Handbook include taking steps to avoid siting new, sensitive land uses:

- Within 500 ft of a freeway, urban roads with 100,000 vehicles/day or rural roads with 50,000 vehicles/day;
- Within 1,000 ft of a major service and maintenance rail yard;
- Immediately downwind of ports (in the most heavily impacted zones) and petroleum refineries;
- Within 300 ft of any dry cleaning operation (for operations with two or more machines, provide 500 ft); and
- Within 300 ft of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater).

The CARB Handbook specifically states that its recommendations are advisory and acknowledges land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.

The recommendations are generalized and do not consider site-specific meteorology, freeway truck percentages, or other factors that influence risk for a particular project site. The purpose of this guidance is to further examine project sites for actual health risk associated with the location of new sensitive land uses.

4.2.4.3 Regional Regulations

South Coast Air Quality Management District. The SCAQMD has jurisdiction over most air quality matters in the SCAB. This area includes all of Orange County, Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. Orange County is a subregion of the SCAQMD jurisdiction. The SCAQMD is the agency principally responsible for comprehensive air pollution control in the SCAB in and is tasked with implementing certain programs and regulations required by the CAA and the CCAA. The SCAQMD prepares plans to attain NAAQS. SCAQMD is directly responsible for reducing emissions from stationary (area and point) sources. The SCAQMD develops rules and regulations, establishes permitting requirements, inspects emissions sources, and enforces such measures though educational programs or fines, when necessary.

The proposed project could be subject to the following SCAQMD rules and regulations:

- **Regulation IV - Prohibitions:** This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air pollutant emissions, fuel contaminants, start-up/shutdown exemptions, and breakdown events. These prohibitions will apply to future development facilitated by approval of the proposed project.

    - **Rule 402 - Nuisance:** This rule restricts the discharge of any contaminant in quantities that cause or have a natural ability to cause injury, damage, nuisance, or annoyance to businesses, property, or the public.

    - **Rule 403 - Fugitive Dust:** This rule requires the prevention, reduction, or mitigation of fugitive dust emissions from a project site. Rule 403 restricts visible fugitive dust to a project property line, restricts the net PM_{10} emissions to less than 50 $\mu g/m^3$ and restricts the tracking out of bulk materials onto public roads. Additionally, Rule 403 requires an applicant to utilize one or more of the best available control measures (identified in the associated tables within the SCAQMD rule). Control measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers, and/or ceasing all activities. Finally, Rule 403 requires that a contingency plan be prepared if so determined by the USEPA. In addition, SCAQMD Rule 403(e), Additional Requirements for Large Operations, includes requirements to provide Large Operation Notification Form 403 N, appropriate signage, additional dust control measures, and employment of a dust control supervisor that has successfully completed the Dust Control training class in the SCAB.

- **Regulation XI - Source Specific Standards:** Regulation XI sets emissions standards for different sources.

    - **Rule 1113 - Architectural Coatings:** This rule limits the amount of volatile organic compounds (VOCs) from architectural coatings and solvents, which lowers the emissions of odorous compounds. Future development facilitated by approval of the project will comply with Rule 1113.

The SCAQMD is responsible for demonstrating regional compliance with ambient air quality standards but has limited indirect involvement in reducing emissions from fugitive, mobile, and natural sources. To that end, the SCAQMD works cooperatively with CARB, the Southern California Association of Governments (SCAG), county transportation commissions, local governments, and other federal and State government agencies. It has responded to this requirement by preparing a series of Air Quality Management Plans (AQMPs) to meet the CAAQS and NAAQS. SCAQMD and SCAG are responsible for formulating and implementing the AQMP for the SCAB. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. Every 3 years, SCAQMD prepares a new AQMP, updating the previous plan and 20-year horizon.[1] The 2020 AQMP has not been adopted and the SCAQMD is now looking ahead to the 2022 AQMP.

SCAQMD approved the 2016 AQMP on March 3, 2017, and submitted the plan to CARB on March 10, 2017. Key elements of the 2016 AQMP include the following:

[1] South Coast Air Quality Management District (SCAQMD). 2017. *Final 2016 Air Quality Management Plan*. March.

- Calculating and taking credit for co-benefits from other planning efforts (e.g., climate, energy, and transportation)
- A strategy with fair-share emission reductions at the federal, State, and local levels
- Investment in strategies and technologies meeting multiple air quality objectives
- Seeking new partnerships and significant funding for incentives to accelerate deployment of zero-emission and near-zero emission technologies
- Enhanced socioeconomic assessment, including an expanded environmental justice analysis
- Attainment of the 24-hour $PM_{2.5}$ standard in 2019 with no additional measures
- Attainment of the annual $PM_{2.5}$ standard by 2025 with implementation of a portion of the O_3 strategy
- Attainment of the 1-hour O_3 standard by 2022 with no reliance on "black box" future technology (Federal CAA Section 182(e)(5) measures)

Southern California Association of Governments. SCAG is the federally designated Metropolitan Planning Organization (MPO) for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and serves as a forum for the discussion of regional issues related to transportation, the economy and community development, and the environment. SCAG is a council of governments and acts as a regional planning agency. With regard to air quality planning, SCAG prepares the Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP), which address regional development and growth forecasts and form the basis for the land use and transportation control portions of the AQMP and are utilized in the preparation of the air quality forecasts and consistency analysis included in the AQMP. The RTP, RTIP, and AQMP are based on projections originating within local jurisdictions.

Although SCAG is not an air quality management agency, it is responsible for developing transportation, land use, and energy conservation measures that affect air quality. SCAG's Regional Comprehensive Plan (RCP) provides growth forecasts that are used in the development of air quality–related land use and transportation control strategies by the SCAQMD. The RCP is a framework for decision-making for local governments, assisting them in meeting federal and State mandates for growth management, mobility, and environmental standards, while maintaining consistency with regional goals regarding growth and changes. Policies within the RCP include consideration of air quality, land use, transportation, and economic relationships by all levels of government.

On September 3, 2020, SCAG adopted Connect SoCal (the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy [RTP/SCS]). Using growth forecasts and economic trends, the RTP provides a vision for transportation throughout the region for the next 20 years. It includes the identification of transportation facilities such as major roadways, transit, intermodal facilities and connectors that function as an integrated metropolitan system. The SCS is a required element of

the RTP, which integrates land use and transportation strategies to achieve CARB emissions reduction targets. The inclusion of the SCS is required by Senate Bill (SB) 375, which was enacted to reduce greenhouse gas (GHG) emissions from automobiles and light trucks through integrated transportation, land use, housing, and environmental planning. For the SCAG region, the CARB has set GHG reduction targets at 8 percent below 2005 per capita emissions levels by 2020, and 19 percent below 2005 per capita emissions levels by 2035. The RTP/SCS lays out a strategy for the region to meet these targets.

With respect to air quality, most areas within the SCAG region have been designated as nonattainment or maintenance areas for one or more transportation-related criteria pollutants. Pursuant to the CAA, SCAG's 2020–2040 RTP/SCS is required to meet all federal transportation conformity requirements, including regional emissions analysis, financial constraint, timely implementation of transportation control measures, and interagency consultation and public involvement.

SCAG submits a list of transportation-related projects (in the RTP/SCS) for potential funding by the Federal Highway Administration (FHWA). The FHWA will review and approve either portions of or the entire list of transportation projects. This review will include a determination regarding whether the Federal agency's actions on these transportation projects would conform to the California State Implementation Plan (SIP). SCAQMD incorporates the SCAG RTP/SCS emissions budget for mobile sources into the AQMP emissions inventory analysis for all sources of emissions (including stationary, area, and mobile). Conformity analysis and the USEPA review and approval actions are not subject to California Environmental Quality Act (CEQA) review.

4.2.4.4 Local Regulations

City of Cypress General Plan. The Air Quality Element of the City's General Plan is intended to protect public health and welfare by implementing measures that allow the SCAB to attain federal and State air quality standards. To achieve this goal, the Air Quality Element sets forth a number of programs to reduce current pollutant emissions and to require new development to include measures to comply with air quality standards. The Air Quality Element identifies goals and policies to reduce the generation of pollutants. It also recognizes that air quality is a regional issue affecting the entire SCAB. Thus, most of the goals and policies in the Air Quality Element apply generally to the City, but not necessarily to individual development projects.

4.2.5 Thresholds of Significance

The thresholds for air quality impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines* and the City's *Initial Study/Environmental Checklist*. The proposed project may be deemed to have a significant impact with respect to air quality if it would:

Threshold 4.2.1: **Conflict with or obstruct implementation of the applicable air quality plan?**

Threshold 4.2.2: **Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?**

Threshold 4.2.3: Expose sensitive receptors to substantial pollutant concentrations?

Threshold 4.2.4: Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

As stated in Appendix G of the *State CEQA Guidelines*, where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make determinations about a project's impacts. This Draft EIR uses the adopted thresholds of the SCAQMD, the local air quality management district.

4.2.5.1 Regional Emissions Thresholds

SCAQMD has established daily emissions thresholds for construction and operation of a proposed project in the SCAB. The emissions thresholds were established based on the attainment status of the SCAB with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these emissions thresholds are regarded as conservative and would overstate an individual project's contribution to health risks.

Table 4.2.E lists the CEQA significance thresholds for construction and operational emissions established for the SCAB.

Table 4.2.E: Regional Thresholds for Construction and Operational Emissions

Emissions Source	Pollutant Emissions Threshold (lbs/day)					
	VOC	NO_X	CO	PM_{10}	$PM_{2.5}$	SO_X
Construction	75	100	550	150	55	150
Operations	55	55	550	150	55	150

Source: SCAQMD. Air Quality Significance Thresholds (2018a) Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf (accessed November 2020).

CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOC = volatile organic compounds

Projects in the SCAB with construction- or operation-related emissions that exceed any of their respective emission thresholds would be considered significant under SCAQMD guidelines. These thresholds, which SCAQMD developed and that apply throughout the SCAB, apply as both project and cumulative thresholds. If a project exceeds these standards, it is considered to have a project-specific and cumulative impact.

4.2.5.2 Localized Impacts Analysis

The SCAQMD published its *Final Localized Significance Threshold Methodology* in July 2008, recommending that all air quality analyses include an assessment of air quality impacts to nearby sensitive receptors.[1] This guidance was used to analyze potential localized air quality impacts

[1] SCAQMD. 2008. *Final Localized Significance Threshold Methodology.* July.

associated with construction of the proposed project. Localized significance thresholds (LSTs) are developed based on the size or total area of the emission source, the ambient air quality in the source receptor area, and the distance to the project. Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality.

LSTs are based on the ambient concentrations of that pollutant within the project Source Receptor Area (SRA) and the distance to the nearest sensitive receptor. For the proposed project, the appropriate SRA for the LST is the nearby Central Orange County area (SRA 17). SCAQMD provides LST screening tables for 25, 50, 100, 200, and 500-meter source-receptor distances. As identified above, the closest sensitive receptors include the single-family residences as close as 1,070 ft south of the project site.

The SCAQMD has produced look-up tables for projects that disturb less than or equal to 5 acres daily. The total project site is 7 acres; however, based on information provided by the Applicant/ Developer, the maximum daily disturbance to the proposed project site on any given day would be 0.5 acre; therefore, the 1-acre thresholds were used for construction of the proposed project. The maximum 5-acre thresholds would apply to operational activities associated with the proposed project. Table 4.2.F lists the emissions thresholds that apply during project construction and operation.

Table 4.2.F: SCAQMD LST Thresholds (lbs/day)

Emissions Source	Pollutant Emissions Threshold (lbs/day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Construction (1-acre, 1,070-foot distance)	152.0	4,096.0	101.0	48.0
Operations (5-acre, 1,070-foot distance)	220.0	6,252.0	32.0	16.0

Source: SCAQMD. *Final Localized Significance Threshold Methodology* (July 2008).
CO = carbon monoxide
lbs/day = pounds per day
LST = localized significance threshold
NO_x = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SCAQMD = South Coast Air Quality Management District

4.2.5.3 Local Microscale Concentration Standards

The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project site are above or below State and federal CO standards. Because ambient CO levels are below the standards throughout the SCAB, a project would be considered to have a significant CO impact if project emissions result in an exceedance of one or more of the 1-hour or 8-hour standards. The following are applicable local emission concentration standards for CO:

- California State 1-hour CO standard of 20 parts per million (ppm)
- California State 8-hour CO standard of 9 ppm

4.2.6 Project Impacts

Threshold 4.2.1: Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The SCAQMD's *CEQA Air Quality Handbook* (1993, currently being revised) indicates that consistency with the SCAQMD 2016 AQMP is affirmed when a project: (1) does not increase the frequency or severity of an air quality standards violation or cause a new violation; and (2) is consistent with the growth assumptions in the AQMP. As described further under Threshold 4.2.2 below, and shown in Tables 4.2.G through 4.2.J, the proposed project would result in short-term construction and long-term pollutant emissions that are less than the emissions thresholds established by SCAQMD; therefore, the proposed project would not increase the frequency or severity of any air quality standard violation or cause a new air quality standard violation.

The 2016 AQMP was prepared to accommodate growth and to reduce the high levels of pollutants within the areas under the jurisdiction of the SCAQMD. Projects that are considered to be consistent with the AQMP would not interfere with attainment because this growth is included in the projections utilized in the formulation of the 2016 AQMP. According to SCAG's 2020–2045 RTP/SCS, Orange County's population, households, and employment are forecast to increase by approximately 267,000 residents, 89,000 households, and 206,000 jobs, respectively, between 2020 and 2045.[1]

The proposed project would allow new residential uses on the project site, consistent with the current Specific Plan, General Plan, and zoning designations. The proposed project would result in a net increase of 408 residents (0.2 percent of SCAG's projected population growth for the County from 2020 to 2045 of 267,000 residents) and 135 residential units (0.2 percent of SCAG's projected household growth for the County from 2020 to 2045 of 89,000 households). The proposed project's 135 residential units would provide housing for the population growth within the City anticipated in the AQMP. In addition, the actual population growth in the County is lower than what was projected in the current AQMP, and therefore, it is unlikely that the additional units from the proposed project would interfere with SCAQMD's goals for improving air quality in the region. The increases in population and housing resulting from the proposed project are not considered significant because they would not represent a substantial increase in population growth (less than a 1 percent increase in the City's total population and less than a 0.02 percent increase in the County's total population). Therefore, the proposed project would not conflict with the 2016 AQMP and, as such, would not jeopardize attainment of the CAAQS and NAAQS in the area under the jurisdiction of the SCAQMD. Furthermore, as discussed above, emissions generated by the proposed project would be below emissions thresholds established in SCAQMD's Air Quality Significance Thresholds and would result in less than significant air quality impacts.

Furthermore, the proposed project is consistent with the Air Quality Element of the City's General Plan because it, among other things, develops housing in close proximity to existing and future commercial and retail uses; reduces vehicle emissions by locating higher density housing adjacent to commercial and employment opportunities and providing pedestrian connections to adjacent parcels to provide connectivity and convenient access to the nearby existing and future commercial

[1] Southern California Association of Governments (SCAG). 2020. *Connect SoCal 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy.* Website: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176 (accessed October 2, 2020).

and retail; complies with energy efficiency measures that promote conservation through Title 24; and complies with the adopted attainment standards for the SCAB.

Therefore, construction and operation of the proposed project would not have a significant short- or long-term impact on the region's ability to meet State and federal air quality standards. The proposed project would be consistent with the SCAQMD's AQMP and would not conflict with or obstruct implementation of the applicable air quality plan. No mitigation is required.

Threshold 4.2.2: Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?

Less Than Significant Impact. The SCAB is currently designated nonattainment for the federal and State standards for O_3 and $PM_{2.5}$. In addition, the SCAB is in nonattainment for the PM_{10} standard. The SCAB's nonattainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

In developing thresholds of significance for air pollutants, the SCAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Therefore, additional analysis to assess cumulative impacts is not necessary. The following analysis assesses the potential project-level air quality impacts associated with construction and operation of the proposed project.

Construction. During construction, short-term degradation of air quality may occur due to the release of particulate emissions generated by grading, paving, building, and other activities. Emissions from construction equipment are also anticipated and would include CO, NO_x, VOCs, directly-emitted particulate matter ($PM_{2.5}$ and PM_{10}), and TACs such as diesel exhaust particulate matter.

Project construction activities would include grading, trenching, building construction, architectural coating, and paving activities. Construction-related effects on air quality from the proposed project would be greatest during the grading phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of operating equipment. Larger

dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. The SCAQMD has established Rule 403 (Fugitive Dust), which would require the Applicant/Developer to implement measures that would reduce the amount of particulate matter generated during the construction period.

In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO_2, NO_x, VOCs and some soot particulate ($PM_{2.5}$ and PM_{10}) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles idle in traffic. These emissions would be temporary in nature and limited to the immediate area surrounding the construction site.

Construction activities for the proposed project would include removal of asphalt; site preparation; grading; construction of the residential buildings and paving; architectural coating activities; and installation of landscaping. Construction of the proposed project would be completed in seven phases, with mass grading and installation of utilities, streets, and curbs and gutters in the initial phase.

Construction is anticipated to last for approximately 27 months from the start date of construction. Construction of the proposed project would require approximately 33,030 cubic yards (cy) of cut and 40,155 cy of fill, resulting in a net import of approximately 7,125 cy of material. Grading and building activities would involve the use of standard earthmoving equipment such as loaders, bulldozers, cranes, and other related equipment.

As specified in Regulatory Compliance Measures AQ-1 through AQ-4, construction of the proposed project would comply with SCAQMD standard conditions, including Rule 403 (Fugitive Dust) to control fugitive dust and Rule 1113 (Architectural Coatings) to control VOC emissions from paint. Compliance with SCAQMD standard conditions is a regulatory requirement and was considered in the analysis of construction emissions.

The maximum daily emissions of VOCs, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$ that would result from construction of the proposed project are summarized in Table 4.2.G and compared to the SCAQMD regional significance thresholds. As shown in Table 4.2.G, construction emissions associated with the proposed project would not exceed the significance thresholds established by the SCAQMD for any of the criteria pollutants.

Fugitive dust emissions are generally associated with land clearing and exposure of soils to the air and wind, as well as cut-and-fill grading operations. Dust generated during construction varies substantially on a project-by-project basis, depending on the level of activity, the specific operations, and weather conditions at the time of construction. The proposed project would be required to comply with SCAQMD Rule 403 to control fugitive dust (see Regulatory Compliance Measure AQ-1, below). Architectural coatings contain VOCs that are an ozone (O_3) precursor.

Table 4.2.G: Short-Term Regional Construction Emissions

Construction Sub-Phase	Total Regional Pollutant Emissions (lbs/day)							
	VOC	NO_X	CO	SO_X	Fugitive PM_{10}	Exhaust PM_{10}	Fugitive $PM_{2.5}$	Exhaust $PM_{2.5}$
Project								
Grading	1.6	49.5	30.9	0.1	0.8	1.0	0.2	1.0
Trenching	1.0	28.0	20.8	<0.1	0.3	0.7	0.1	0.7
Building Construction	1.8	30.4	25.7	0.1	1.3	1.1	0.4	1.1
Paving	1.2	22.7	20.0	<0.1	0.2	0.8	<0.1	0.8
Architectural Coatings	1.9	3.6	3.5	<0.1	0.3	0.1	0.1	0.1
Peak Daily Emissions[1]	**4.9**	**56.9**	**49.2**	**0.1**	**3.8**		**2.5**	
SCAQMD Thresholds	**75.0**	**100.0**	**550.0**	**150.0**	**150.0**		**55.0**	
Would the Project exceed SCAQMD Thresholds?	**No**	**No**	**No**	**No**	**No**		**No**	

Source: Compiled by LSA (November 2020).
[1] Peak daily emissions of VOC, NO_x, CO, PM_{10}, and $PM_{2.5}$ occur during overlap of the Building Construction, Paving, and Architectural Coating phases.
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOC = volatile organic compounds

As shown in Table 4.2.G, the proposed peak construction day is estimated to result in a peak of 4.9 pounds per day (lbs/day) of VOCs. However, the VOC emissions associated with the project would not exceed the SCAQMD VOC threshold of 75 lbs/day and would not contribute to significant construction-related air quality impacts.

As discussed above, according to SCAQMD guidance, projects that exceed the significance thresholds are considered by SCAQMD to result in cumulatively considerable air quality impacts. Conversely, projects that do not exceed the significance thresholds are generally not considered to result in cumulatively considerable air quality impacts. Therefore, based on the fact that emissions during construction of the proposed project would not exceed any of the air quality significance thresholds for any criteria pollutants, the proposed project would not have a cumulatively considerable air quality impact. Therefore, with compliance with regulatory requirements (as specified in Regulatory Compliance Measures AQ-1 through AQ-4), construction impacts related to the cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under applicable NAAQS or CAAQS would be less than significant, and no mitigation is required.

Operation. Long-term air pollutant emission impacts are those associated with the project's stationary sources and mobile sources. The proposed project would result in increases in both stationary and mobile-source emissions compared to existing conditions. Emission modeling conducted for the proposed project reflects compliance with SCAQMD Rule 445 and assumes that there would be no woodstoves and any fireplaces would be gas powered. The modeling incorporates project design features such as photovoltaic energy for 30 percent of project power needs, the use of energy-efficient appliances, and water-efficient features. Project operations would

result in VOC, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$ emissions from three primary sources: area source emissions, energy source emissions, and mobile source emissions, as described further below.

Area source emissions would be generated from the following sources:

- **Architectural Coating**: Over a period of time, the buildings that are part of the proposed project would generate emissions from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings used during maintenance activities.

- **Consumer Products**: Consumer products include but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. When released in the atmosphere, many of these products contain organic compounds that can react to form O_3 and other photochemically reactive pollutants.

- **Landscape Maintenance Equipment**: Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers used to maintain landscaping.

Energy source emissions include criteria pollutant emissions from the generation of electricity and consumption of natural gas. As specified in Regulatory Compliance Measure AQ-5, the project building components (e.g., windows, roof systems, electrical and lighting systems, and heating, ventilation, and air conditioning systems) would be designed in compliance with the 2019 Title 24 standards. The 2019 Title 24 standards require projects to implement energy efficiency measures that promote conservation. The 2019 Title 24 standards anticipate 30 percent less energy use for non-residential buildings and 53 percent less energy use for residential use due to lighting upgrades. In addition, consistent with the 2019 Title 24 standards, this analysis assumes that the proposed project would include photovoltaic energy for 30 percent of project power needs, the use of energy-efficient appliances, and water-efficient faucets.

Project vehicle trips to and from the project site would generate mobile source emissions. Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust and tire wear particulates. Mobile source emissions are dependent on both overall daily vehicle trip generation and the effect of the project on peak-hour traffic volumes and traffic operations in the vicinity of the project site. The project-related operational air quality emissions are primarily due to vehicle trips. According to the Traffic Operations Assessment (2020), the proposed project is anticipated to generate a total of 988 average daily trips (ADT), with 62 a.m. peak-hour trips and 76 p.m. peak-hour trips.

The long-term operational emissions associated with the proposed project are shown in Table 4.2.H.

Table 4.2.H: Opening Year Regional Operational Emissions

Source	Pollutant Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Project						
Area	3.5	2.1	12.0	<0.1	0.2	0.2
Energy	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mobile	1.5	6.6	19.2	0.1	6.4	1.7
Total Project Emissions	**5.0**	**9.1**	**31.4**	**0.1**	**6.6**	**2.0**
SCAQMD Thresholds	**55.00**	**55.00**	**550.00**	**150.00**	**150.00**	**55.00**
Would the Project exceed SCAQMD Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (November 2020).
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOC = volatile organic compounds

As shown in Table 4.2.H, project-related increases of all criteria pollutants would not exceed the corresponding SCAQMD daily emission thresholds for any criteria pollutants under project operation. In addition, the project would not result in a cumulatively considerable increase in emissions due to operation-related emissions. Therefore, operation of the proposed project would not violate any air quality standard or substantially contribute to an existing or projected air quality violation.

CO Hot Spot. CO hot spots are caused by vehicular emissions, primarily when idling at congested intersections. Based on the analysis presented below, a CO "hot-spot" analysis is not needed to determine whether a change in the level of service (LOS) of an intersection in the vicinity of the project site would have the potential to result in exceedance of either the CAAQS or NAAQS.

Vehicle emissions standards have become increasingly stringent in the last 20 years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and the implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SCAB is now designated as attainment. In addition, CO concentrations in the vicinity of the project site have steadily declined.

The analysis prepared for CO attainment in the SCAB by SCAQMD can be used to assist in evaluating the potential for CO exceedances in the SCAB. To establish a more accurate record of baseline CO concentrations affecting the SCAB, a CO "hot-spot" analysis was conducted by SCAQMD in 2003[1] for four busy intersections in Los Angeles at the peak morning and afternoon time periods. The busiest intersection evaluated was at Wilshire Boulevard and Veteran Avenue, which has a traffic volume of approximately 100,000 vehicles per day. This analysis did not predict any violation of CO standards. Based on the SCAQMD 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide

[1] SCAQMD. 2003. *2003 Air Quality Management Plan*. Website: https://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/2003-aqmp (accessed November 2020).

(1992 CO Plan)[1], peak CO concentrations in the SCAB were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. Even if the traffic volumes of the proposed project were double or triple that of the traffic volumes generated at the four busy intersections in Los Angeles, coupled with the ongoing improvements in ambient air quality, the project would not be capable of resulting in a CO "hot spot" at any study area intersections. Similar considerations are also employed by other air districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour (vph)—or 24,000 vph where vertical and/or horizontal air does not mix—in order to generate a significant CO impact.

According to the Traffic Operations Assessment, the proposed project is anticipated to generate a total of 988 ADT, with 62 a.m. peak-hour trips and 76 p.m. peak-hour trips. Since the proposed project would not increase traffic volumes at any intersection to more than 100,000 vehicles per day (the volumes at the busiest intersection evaluated in SCAQMD's hot spot analysis), there is no likelihood of the project traffic exceeding CO values. Because the proposed project would not produce the volume of traffic required to generate a CO "hot spot," and due to the lack of traffic impacts and extremely low levels of CO at surrounding intersections, CO emissions from operation of the proposed project would not expose sensitive receptors to substantial pollutant concentrations. Impacts related to CO hot spots would be less than significant, and no mitigation is required.

Threshold 4.2.3: Would the project expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. Project construction and operation emissions were compared to the LST screening tables in SRA 17, based on a 1,070 ft source-receptor distance and a 1-acre size for construction emissions and a 5-acre project size for operational emissions. The results of the LST analysis, summarized in Tables 4.2.I and 4.2.J, indicate that the project would not result in an exceedance of SCAQMD LSTs during project construction or operation.

Table 4.2.I: Construction Localized Impacts Analysis

Emissions Sources	Pollutant Emissions (lbs/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
On-Site Emissions	41.4	28.7	1.1	1.1
LST Thresholds	**152.0**	**4,096.0**	**101.0**	**48.0**
Exceeds LSTs?	**No**	**No**	**No**	**No**

Source: Compiled by LSA (November 2020).
Note: Source Receptor Area – Central Orange County, 1 acre, receptors at 1,070 ft
CO = carbon monoxide
ft = foot/feet
lbs/day = pounds per day
LST = local significance threshold
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size

[1] CARB 2005a. *2005 South Coast Carbon Monoxide Plan (CO Plan).* Website: https://ww2.arb.ca.gov/resources/documents/2005-south-coast-carbon-monoxide-plan (accessed November 2020).

Table 4.2.J: Long-Term Operational Localized Impacts Analysis

Emissions Sources	Pollutant Emissions (lbs/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
On-Site Emissions	2.5	13.0	0.5	0.3
LST Thresholds	**220.0**	**6,252.0**	**32.0**	**16.0**
Exceeds LSTs?	**No**	**No**	**No**	**No**

Source: Compiled by LSA (November 2020).
Note: Source Receptor Area – Central Orange County, 5 acres, receptors at 1,070 ft
CO = carbon monoxide
ft = foot/feet
lbs/day = pounds per day
LST = localized significance thresholds
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size

Construction. Construction activities would result in localized exhaust emissions that have the potential to affect nearby sensitive receptors. In order to identify impacts to sensitive receptors, the SCAQMD recommends analyzing LSTs for construction. As discussed previously, sensitive receptors near the project site include existing single-family residential homes located approximately 1,070 ft south of the project site. Table 4.2.I shows that the localized construction emissions would not exceed the LSTs that apply to the project site. As shown in Table 4.2.I, construction emissions associated with the proposed project would not exceed the LSTs established by SCAQMD. Further, as specified in Regulatory Compliance Measure AQ-1, construction of the proposed project would comply with SCAQMD standard conditions, including Rule 403 (Fugitive Dust) to control fugitive dust. Compliance with SCAQMD standard conditions is a regulatory requirement and was considered in the analysis of construction emissions. Because the project emissions would not exceed the LSTs with their compliance with regulatory requirements (and would be further reduced with implementation of Regulatory Compliance Measures AQ-1 through AQ-4), impacts related to the exposure of sensitive receptors to substantial pollutant concentrations during project construction would be less than significant. No mitigation is required.

Operation. A project would generate localized exhaust emissions that have the potential to affect nearby sensitive receivers if the project includes stationary sources, or attracts mobile sources that may spend long periods queueing and idling at the site (e.g., warehouse or transfer facilities). As such, operational LSTs are not applicable to the proposed project. Although the proposed project does not include such uses, impacts associated with the operational localized emissions have been analyzed for disclosure purposes. Operational LSTs apply to CO, NO_2, PM_{10}, and $PM_{2.5}$.

Screening-level analysis of LST is recommended for operational activities at the project site only. Off-site vehicle trips are not included in the LST analysis. The CalEEMod model includes all operational emissions for both on- and off-site sources. For a worst-case scenario assessment, the LST emissions shown in Table 4.2.J include all on-site project-related stationary and area sources and 5 percent of the project-related mobile sources, which together are an estimate of the amount of project-related vehicle traffic that would occur on site. A total of 5 percent is considered conservative because more than 95 percent of the project-related vehicle trips would occur off site.

As discussed previously, sensitive receptors near the project site include existing single-family residential homes located approximately 1,070 ft south of the project site, and LSTs for receptors located at 335 meters were used in this analysis.

Table 4.2.J shows the maximum daily emissions for the project's operational activities compared with the SCAQMD LSTs for NO_X, CO, PM_{10}, and $PM_{2.5}$.

As shown in Table 4.2.J, project operational source emissions would not exceed LSTs established by the SCAQMD. Therefore, because the project would not exceed the LSTs established by the SCAQMD, localized emissions from operation of the proposed project would not expose any sensitive receptors to substantial pollutant concentrations, impacts would be less than significant, and no mitigation is required.

In addition, although the emissions from operations resulting from implementation of the proposed project are not expected to exceed the SCAQMD's project level thresholds, this does not in itself constitute a less than significant health impact to residents within the project site and the SCAB.

The SCAQMD's numeric regional mass daily emissions thresholds are based in part on Section 180 (e) of the federal Clean Air Act. It should be noted that the numeric regional mass daily emissions thresholds have not changed since their adoption as part of SCAQMD's *CEQA Air Quality Handbook* published in 1993 (over 20 years ago). The numeric regional mass daily emission thresholds are also intended to provide a means of consistency in significance determination within the environmental review process.

Notwithstanding, simply exceeding the SCAQMD's numeric regional mass daily emissions thresholds does not constitute a particular health impact to an individual nearby. The reason for this is that the mass daily emissions thresholds are represented in pounds per day emitted into the air, whereas health effects are determined based on the concentration of a pollutant in the air at a particular location (e.g., ppm by volume of air or $\mu g/m^3$ of air). CAAQS and NAAQS were developed to protect the most susceptible population groups from adverse health effects and were established in terms of ppm or $\mu g/m^3$ for the applicable emissions.

For this reason, the SCAQMD developed a methodology to assist lead agencies in analyzing localized air quality impacts from proposed projects as they relate to CO, NO_X, $PM_{2.5}$, and PM_{10}. This methodology is collectively referred to as localized significance thresholds (LSTs). LSTs differ from the numeric regional mass daily emissions thresholds in that LSTs are based on (1) the amount of emissions generated from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable NAAQS or CAAQS, and (2) the ambient concentrations of the pollutant and the relative distance to the nearest sensitive receptor (the SCAQMD performed air dispersion modeling to determine what amount of emissions generated a particular concentration at a particular distance). As shown in Table 4.2.J, project operational source emissions would not exceed LSTs established by the SCAQMD.

As noted in the Brief of Amicus Curiae by the SCAQMD[1], the SCAQMD has acknowledged that for criteria pollutants, it would be extremely difficult, if not impossible, to quantify health impacts for various reasons, including modeling limitations as well as where in the atmosphere air pollutants interact and form.

Additionally, the SCAQMD acknowledges that health effects quantification from O_3, as an example, is correlated with the increases in ambient levels of O_3 in the air (concentration) that an individual person breathes. The SCAQMD goes on to state that it would take a large amount of additional emissions to result in a modeled increase in ambient O_3 levels over the entire region. The SCAQMD states that based on its own modeling in its 2012 AQMP, 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 the highest monitored site by only 9 parts per billion (ppb). 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 that are not regional in scope) due to photochemistry and regional model limitations (see page 11 of the SCAQMD Brief of Amicus Curiae).

To underscore this point, the SCAQMD goes on to state that it has only been able to correlate potential health outcomes for very large emissions sources. As part of its rulemaking activity, specifically 6,620 pounds per day (lbs/day) of NO_X and 89,180 lbs/day of VOCs were expected to result in approximately 20 premature deaths per year and 89,947 school absences due to O_3.

At buildout, the proposed project would not generate 6,620 lbs/day of NO_X or 89,190 lbs/day of VOC emissions. As shown previously in Tables 4.2.G and 4.2.H, the proposed project would generate a maximum of 56.9 lbs/day of NO_X during construction (0.9 percent of 6,620 lbs/day) and up to 9.1 lbs/day of NO_X during operations (0.1 percent of 6,620 lbs/day), respectively. The proposed project would also generate a maximum of 4.9 lbs/day during construction (less than 0.1 percent of 89,190 lbs/day) and a maximum of 5.0 lbs/day of VOC emissions during operations (less than 0.1 percent of 89,190 lbs/day), respectively.

Therefore, the proposed project's emissions are not sufficiently high enough to use a regional modeling program to correlate health effects on a South Coast Air Basin-wide level. Notwithstanding, as previously noted, this air quality analysis does include a site-specific localized impact analysis that correlates potential project health impacts on a local level to immediately adjacent land uses. The SCAQMD Brief of Amicus Curiae is incorporated by reference into this EIR, including all references therein.

Current scientific, technological, and modeling limitations prevent the relation of expected adverse air quality impacts to likely health consequences. As such, impacts are considered less than significant.

---

[1] SCAQMD. 2015. *Amicus Curiae Brief of South Coast Air Quality Management District*, April. Website: www.courts.ca.gov/documents/9-s219783-ac-south-coast-air-quality-mgt-dist-041315.pdf (accessed November 2020).

Threshold 4.2.4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact.

Construction. Heavy-duty equipment on the project site during construction would emit odors, primarily from equipment exhaust. However, the construction activity would cease to occur after individual construction is completed. No other sources of objectionable odors would occur during construction of the proposed project, and no mitigation measures are required.

Operation. SCAQMD Rule 402 regarding nuisances states: "A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property."

Potential airborne odors could result from trash receptacles. These odors would be confined to the immediate vicinity of the project site and minimized by SCAQMD odor regulations and lids on trash receptacles. The proposed uses are not anticipated to emit any other types of objectionable odors. Therefore, operation of the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people, and this impact would be less than significant. No mitigation is required.

4.2.7 Level of Significance Prior to Mitigation

Prior to mitigation, the proposed project would result in less than significant impacts. However, the following regulatory compliance measures are existing SCAQMD regulations that are applicable to the proposed project and are considered in the analysis of potential impacts related to air quality. The City of Cypress considers these requirements to be mandatory; therefore, they are not mitigation measures.

4.2.8 Regulatory Compliance Measures and Mitigation Measures

4.2.8.1 Regulatory Compliance Measures

The following regulatory compliance measures pertaining to air quality are applicable to the proposed project.

Regulatory Compliance Measure AQ-1 **SCAQMD Rule 403.** During clearing, grading, earth moving, or excavation operations, excessive fugitive dust emissions shall be controlled by regular watering or other dust preventative measures by using the following procedures, in compliance with South Coast Air Quality Management District (SCAQMD) Rule 403 during construction.

- All material excavated or graded shall be sufficiently watered to prevent excessive amounts of dust.

Watering shall occur at least twice daily with complete coverage, preferably in the late morning and after work is done for the day.

- All material transported on-site or off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust.
- The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized so as to prevent excessive amounts of dust.
- These control techniques shall be indicated in the project specifications. Compliance with this measure shall be subject to periodic site inspections by the City of Cypress (City).
- Visible dust beyond the property line emanating from the project shall be prevented to the maximum extent feasible.

Regulatory Compliance Measure AQ-2 All trucks that are to haul excavated or graded material shall comply with State Vehicle Code Section 23114, with special attention to Sections 23114(b)(F), (e)(2), and (e)(4) as amended, regarding the prevention of such material spilling onto public streets and roads.

Regulatory Compliance Measure AQ-3 Prior to approval of the project plans and specifications, the City Director of Community Development, or designee, shall confirm that the construction bid packages specify:

- Contractors shall use high-volume low-pressure paint applicators with a minimum transfer efficiency of at least 50 percent;
- Coatings and solvents that will be utilized have a volatile organic compound content lower than required under SCAQMD Rule 1113; and
- To the extent feasible, construction/building materials shall be composed of pre-painted materials.

Regulatory Compliance Measure AQ-4 The project shall comply with SCAQMD Rule 402. Rule 402 prohibits the discharge of air contaminants or other material from any type of operations, which can cause nuisance or annoyance to any considerable number of people or to the public or which endangers the comfort or repose of any such persons, or the public.

Regulatory Compliance Measure AQ-5 **California Code of Regulations (CCR), Title 24.** Prior to the issuance of building permits, the City of Cypress (City) Chief Building Official, or designee, shall confirm that the project design complies with the 2019 Building Energy Efficiency Standards (CCR Title 24) energy conservation and green building standards, as well as those listed in Part 11 (California Green Building Standards Code [CALGreen Code]). The City's Chief Building Official shall confirm that the project complies with the mandatory measures listed in the CALGreen Code for residential building construction.

4.2.9 Mitigation Measures

No mitigation is required for the proposed project.

4.2.10 Level of Significance after Mitigation

Implementation of Regulatory Compliance Measures AQ-1 through AQ-5 would further reduce project-related air quality impacts to a less than significant level. No significant and unavoidable impacts related to air quality would occur with implementation of these standard measures. All anticipated impacts related to air quality would be considered less than significant, and no mitigation is required.

4.2.11 Cumulative Impacts

As defined in Section 15130 of the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for air quality. The cumulative impact area for air quality related to the proposed project is the SCAB.

Air pollution is inherently a cumulative type of impact measured across an air basin. The discussion under Threshold 4.2.2, above, includes an analysis of the proposed project's contribution to cumulative air impacts. To summarize the conclusion with respect to that analysis, the incremental effect of projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively considerable. The proposed project's construction- and operation-related regional daily emissions are less than the SCAQMD significance thresholds for all criteria pollutants. In addition, adherence to SCAQMD rules and regulations on a project-by-project basis would substantially reduce potential impacts associated with the related projects and South Coast Air Basin -wide air pollutant emissions. Therefore, the proposed project would not have a cumulatively considerable increase in emissions, and the proposed project's cumulative air quality impacts would be less than significant.

4.3 BIOLOGICAL RESOURCES

This section describes the existing biological resources on and in the vicinity of the Cypress Town Center Project (proposed project) site, the potential impacts of the proposed project on those resources, and measures to mitigate any potentially significant impacts. Information presented in this section is based on Geographic Information System (GIS) data, the California Natural Diversity Database (CNDDB), and on the City of Cypress' (City) *Inventory of Landmark Trees* (July 1996). The literature review and CNDDB records search results are provided in Appendix C of this Environmental Impact Report (EIR).

4.3.1 Scoping Process

The City of Cypress received four comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this EIR. No comment letter(s) included comments related to biological resources.

4.3.2 Methodology

A literature review was conducted to determine the potential occurrence of special-status plant and animal species on or in the immediate vicinity of the project site. Database records from the California Department of Fish and Wildlife (CDFW) CNDDB – Rarefind 5 and the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants of California were utilized to assist in determining the existence or potential occurrence of any special-status plant and animal species[1] in or immediately adjacent to the project site. Similarly, LSA reviewed the United States Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) Online System[2] and the USFWS Critical Habitat Mapper[3] which present candidate, threatened, and endangered species; crucial habitat; national wildlife refuges; and/or migratory birds that occur within or near a defined search area. The USFWS National Wetlands Inventory[4] was reviewed to determine whether any potential wetlands or surface waters had been previously identified on the site. Database records for the *Los Alamitos* United States Geological Survey (USGS) 7.5-minute quadrangle were examined using the CNDDB and the CNPS electronic inventories. Sensitive species known by LSA biologists to occur in the general area were also considered.

---

1 The term "special-status species" refers to those species that are listed or proposed for listing under the California and Federal Endangered Species Acts (CESA and/or FESA), California Fully Protected Species, California Species of Special Concern, and California Special Animals. It should be noted that "Species of Special Concern" and "California Special Animal" are administrative designations made by the CDFW and carry no formal legal protection status. However, Section 15380 of the *State CEQA Guidelines* indicates that these species should be included in an analysis of project impacts if they can be shown to meet the criteria of sensitivity outlined therein.

2 United States Fish and Wildlife Service (USFWS). 2020b. IPaC Information for Planning and Consultation. Website: https://ecos.fws.gov/ipac/ (accessed October 5, 2020).

3 USFWS. 2020a. Critical Habitat for Threatened and Endangered Species. GIS Mapping Website: https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77 (accessed October 5, 2020).

4 USFWS. 2020c. Wetlands. The National Wetlands Inventory. Website: https://www.fws.gov/wetlands/ (accessed October 2020).

4.3.3 Existing Environmental Setting

The approximately 7-acre project site is characterized by a paved parking lot, with existing light poles and various electrical utility boxes and lines. A public sidewalk, driveway access points, and ornamental landscaping exist along the current segment of Vessels Circle east of the project site. Ornamental landscaping is present along the northern edge of the project site adjacent to the Los Alamitos Race Course parking lot. Along the eastern side of the project site, there is a driveway access point to Costco Way that does not include any landscaping.

The vast majority of the site is a paved parking lot, devoid of any vegetation. The only vegetation on the site is a 60-foot (ft) wide strip of ornamental trees, palm trees, and grass/shrubs on the north portion of the project site. The project site is relatively flat, and has been fully graded and disturbed. No wetlands or potentially jurisdictional drainages occur within the site. There are no connections to open spaces or undeveloped lands. Recreational and commercial, office, and business uses surround the site, including the Los Alamitos Race Course to the north and west, Reliance Technology to the east, and Costco to the south.

4.3.3.1 Plant Species

As described above, the majority of the project site is developed and unvegetated, with the exception of ornamental landscaping along the northern boundary of the project site. These landscaped areas contain trees; however, none of the trees are designated as Landmark Trees according to the City's *Inventory of Landmark Trees* (July 1996). The results of the literature review and CNDDB search did not identify any special-status plant species on the project site or in the vicinity of the project site. Appendix C contains a table that identifies those special-status plant species known to occur or that could potentially occur in the vicinity of the project site, and includes each species' probability of occurrence within the proposed construction footprint. As described in Appendix C, no special-status plant species are expected to occur within the project site due to the lack of suitable habitat and developed/maintained conditions present in all portions of the site.

4.3.3.2 Animal Species

Native wildlife habitat is largely absent on the project site. Furthermore, the lack of ground cover and suitable foraging habitat make the site undesirable for many native wildlife species. Animal species known to occur in the project vicinity include those found in developed, urban areas throughout southern California, such as coyote (*Canis latrans*), raccoon (*Procyon lotor*), California ground squirrel (*Otospermophilus beecheyi*), band-tailed pigeon (*Patagioenas fasciata*), mourning dove (*Zenaida macroura*), western gull (*Larus occidentalis*), American crow (*Corvus brachyrhynchos*), European starling (*Sturnus vulgaris*), song sparrow (*Melospiza melodia*), and various other common native and non-native bird species.

Habitat on the project site is considered low quality with respect to most of the regionally occurring special-status animal species identified in the literature reviews. Appendix C contains a table that identifies regional special-status animal species and includes each species' probability of occurrence within the project site. As described in Appendix C, no special-status animal species were given a low, moderate, or high probability of occurring on the project site due to the lack of suitable habitat and existing levels of anthropogenic disturbance in the project area.

Although some animal species are expected to periodically move about the project site, the site is entirely surrounded by other development and therefore does not function as a wildlife movement corridor or special linkage. The results of the literature review and CNDDB search did not identify any special-status animal species on the project site or in the immediately surrounding area.

4.3.3.3 On-Site Aquatic Resources

The project site is strictly upland in nature and is currently developed with a paved parking lot. The site does not contain any natural lakes, wetlands, streams, riparian habitat, or other drainage features. No potential jurisdictional waters of the United States or waters of the State are located on the project site.

4.3.4 Regulatory Setting

This section includes federal, State, regional, and City regulations relevant to biological resources.

4.3.4.1 Federal Regulations

United States Endangered Species Act. The USFWS, pursuant to the Federal Endangered Species Act (FESA), protects endangered and threatened species. FESA defines an endangered species as a species in danger of extinction throughout all or a significant part of its range and a threatened species as one that is likely to become endangered in the foreseeable future. USFWS also identifies species proposed for listing as endangered or threatened. Other than for federal actions, there is no formal protection for candidate species under FESA. However, consultation with USFWS regarding species proposed for listing can prevent project delays that could occur if a species is listed prior to project completion.

Migratory Bird Treaty Act. The federal Migratory Bird Treaty Act (MBTA) governs the take, possession, import, export, transport, selling, purchasing, or bartering of migratory birds and their eggs, parts, and nests. Section 704 of the MBTA states that the Secretary of the Interior is authorized and directed to determine if, and by what means, the take of migratory birds should be allowed and to adopt suitable regulations permitting and governing take while ensuring that take is compatible with protection of the species. Most bird species are protected under the MBTA.

4.3.4.2 State Regulations

California Fish and Game Code – Nesting Birds and Raptors. Under the California Fish and Game Code, it is unlawful to take, possess, or needlessly destroy any bird or the nests or eggs of any bird species except as otherwise provided in the California Fish and Game Code and its regulations. This code also specifically protects raptors, including owls. The CDFW considers a disturbance that results in nest abandonment or loss of reproductive effort as take. Disturbances of active nesting territories should be avoided during the nesting season.

California Endangered Species Act. The CDFW, through provisions of the California Administrative Code and policies formulated by the California Fish and Game Commission, regulates plant and animal species in danger of, or threatened with, extinction based on the list of endangered, threatened, and candidate species developed by the Fish and Game Commission. Endangered species are native species or subspecies of plants and animals that are in serious danger of

becoming extinct throughout all or a significant part of their range. Threatened species are those species that, although not presently threatened with extinction, are likely to become endangered in the foreseeable future without special protection and management. Candidate species are species that the Fish and Game Commission has formally noticed as being under review for addition to the list of endangered or threatened species or as a species proposed for listing.

4.3.4.3 Regional Regulations

There are no regional regulations applicable to the proposed project.

4.3.4.4 Local Regulations

Landmark Tree Ordinance. The City has identified a number of Landmark Trees within its jurisdiction. The City's Landmark Tree Ordinance, as codified in Sections 17-17 through 17-27 of the City Municipal Code, requires a permit for the cutting, modification, destruction, or removal of Landmark Trees. Additionally, the Ordinance maintains that no structures can be constructed within 30 feet of a Landmark Tree without a permit from the Cypress City Council. There are no designated landmark trees within the project site.

4.3.5 Thresholds of Significance

The thresholds for impacts to biological resources used in this analysis are consistent with Appendix G of the *State CEQA Guidelines* and the City's *Initial Study/Environmental Checklist*. The proposed project may be deemed to have a significant impact with respect to biological resources if it would:

Threshold 4.3.1: **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?**

Threshold 4.3.2: **Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?**

Threshold 4.3.3: **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?**

Threshold 4.3.4: **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?**

Threshold 4.3.5: **Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

Threshold 4.3.6: **Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

4.3.6 Project Impacts

Threshold 4.3.1: **Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?**

No Impact. The project site is currently characterized by a paved asphalt surface parking lot. In its existing condition, the project site contains only a small amount of ornamental vegetation along the existing segment of Vessels Circle to the east of the project site and along the northern edge of the project site adjacent to the Los Alamitos Race Course parking lot. The developed and disturbed conditions of the project site are generally not suitable to support special-status plant or animal species, and no special-status species have been documented as occurring on the site or in the immediate vicinity.

Special-Status Habitat/Vegetation. The USFWS Critical Habitat for Threatened & Endangered Species map[1] does not identify any locations of critical habitat within the project site. The closest known critical habitat is the Bolsa Chica Ecological Reserve, approximately 6.8 miles south of the project site. According to the CNDDB, no sensitive plant species have been documented on the project site or in the immediately surrounding area.

The Orange County Transportation Authority's (OCTA) 2016 Natural Community Conservation Plan/ Habitat Conservation Plan (NCCP/HCP), which was adopted for the purpose of permitting freeway capital improvement projects proposed by OCTA and OCTA's habitat preserve, restoration, and monitoring activities, includes a Plan Area that covers the entirety of Orange County, including the City of Cypress. However, the City is not a party to the OCTA NCCP/HCP, and development activity within the City is not subject to the provisions of the OCTA NCCP/HCP. Therefore, the OCTA NCCP/HCP does not apply to the proposed project. No special-status species are anticipated to be directly affected by the project due to the lack of suitable habitat on the project site. Therefore, no impacts to sensitive or special-status species would result from implementation of the proposed project, and no mitigation is required.

Threshold 4.3.2: **Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?**

[1] USFWS. 2020a. Critical Habitat for Threatened and Endangered Species. GIS Mapping Website: https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77 (accessed October 5, 2020).

No Impact. The project site is highly disturbed and developed with an asphalt-paved parking lot and does not support any special-status or sensitive riparian habitat as identified in regional plans, policies, or regulations, or by the CDFW or USFWS. Therefore, no impacts to riparian habitat or other sensitive natural communities identified in a local or regional plan would result from project implementation, and no mitigation is required.

Threshold 4.3.3: Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant Impact. According to the National Wetlands Inventory managed by USFWS, the project site does not contain federally protected wetlands. The project site is located entirely outside of streambeds, banks, and riparian habitat. No potential waters of the United States or CDFW jurisdictional areas are located on the project site.

Although construction activities have the potential to result in temporary indirect effects to water quality including a potential increase in erosion and sediment transport into downstream aquatic areas and the contamination of waters from construction equipment, these potential indirect effects to hydrology and water quality would be avoided or substantially minimized through the implementation of Best Management Practices (BMPs) and a Water Quality Management Plan as discussed in Section 4.9, Hydrology and Water Quality. Specifically, adherence to Regulatory Compliance Measure HYD-1, provided in Section 4.9, Hydrology and Water Quality, during construction would address erosion-related impacts during construction through implementation of construction site BMPs to avoid erosion and sedimentation impacts to downstream aquatic areas and water quality. As such, there would be less than significant impacts on State or federally protected wetlands.

Threshold 4.3.4: Would the project 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. The project site is strictly upland in nature and there are no aquatic resources within the project site to support native resident or migratory fish. Native wildlife habitat is largely absent on the project site. Furthermore, the lack of ground cover and suitable foraging habitat make the site undesirable for wildlife nursery sites (i.e., bat maternity roosts, colonial bird nesting sites/foraging grounds, and steelhead streams). The proposed project would avoid impacts on nesting resident and/or migratory birds either by avoiding vegetation removal during the avian nesting season (February 1 through August 31) or by implementing Regulatory Compliance Measure BIO-1. The proposed project has the potential to impact active migratory bird nests if and to the extent that any of the trees on the project site are removed during the avian nesting season and they contain nests. Regulatory Compliance Measure BIO-1, below, would address any impacts to nesting resident and/or migratory birds should it be necessary to conduct vegetation removal during the nesting season and nests are present. With implementation of Regulatory Compliance Measure

BIO-1, the proposed project's potential impacts on nesting migratory birds would be less than significant.

The proposed project would avoid impacts on the nests of raptors (which are migratory birds) if the existing trees in the ornamental vegetation area are removed outside the raptor nesting season (February 1 through June 30) and they contain raptor nests. The proposed project has the potential to impact active raptor nests if and to the extent that (1) those ornamental trees are removed during the raptor nesting season, and (2) special-status or common species of raptors establish nests in the future in any of those ornamental trees prior to their removal. Regulatory Compliance Measure BIO-1, below, would also address any impact to nesting raptors should it be necessary to conduct vegetation removal during the nesting season and raptors are present. With implementation of Regulatory Compliance Measure BIO-1, the proposed project would result in less than significant impacts with respect to disrupting a wildlife corridor or in any way disrupting the movement of native wildlife.

Threshold 4.3.5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant Impact. The Landmark Tree Ordinance in the City's Municipal Code protects designated landmark trees, which are specifically identified in the City's *Inventory of Landmark Trees* (July 1996). According to this inventory, there are no landmark trees on the project site. The removal of any on-site trees or vegetation would not conflict with the City's Landmark Tree Ordinance.

Per Article IV of the Municipal Code, Street Trees, any tree within the public right-of-way belongs to the City of Cypress. Any work to street trees conducted as part of the proposed project would be done in accordance with the City Council's adopted Parkway Tree Policy.

Therefore, through compliance with these local policies and ordinances relating to tree protection, any impacts to local street trees would be considered less than significant.

Threshold 4.3.6: Would the project 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. There is no adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other regional habitat conservation plan applicable to the City. As discussed above in the response to Threshold 4.3.1, the OCTA NCCP/HCP includes a Plan Area that covers the entirety of Orange County, including the City of Cypress. However, the City is not a party to the OCTA NCCP/HCP, and development activity within the City is not subject to the provisions of the OCTA NCCP/HCP. Therefore, the OCTA NCCP/HCP does not apply to the proposed project, and the proposed project would not conflict with any local, regional, or State HCP or NCCP. The proposed project would not result in impacts related to conflict with any provisions of an HCP or NCCP, and no mitigation is required.

4.3.7 Level of Significance Prior to Mitigation

The proposed project would result in no impacts related to candidate, sensitive, or special-status wildlife species, riparian habitat and sensitive natural communities, policies or ordinances protecting biological resources, and conflicts with an adopted HCP. Potential impacts to migratory birds and raptors, wetlands, and street trees would be considered less than significant. No mitigation is required.

4.3.8 Regulatory Compliance Measures and Mitigation Measures

4.3.8.1 Regulatory Compliance Measures

Regulatory Compliance Measure BIO-1 **Nesting Bird Survey and Avoidance.** If vegetation removal, construction, or grading activities are planned to occur within the active nesting bird season (February 1 through August 31), the City of Cypress, or designee, shall confirm that the Applicant/Developer has retained a qualified biologist who shall conduct a preconstruction nesting bird survey no more than 3 days prior to the start of such activities. The nesting bird survey shall include the work area and areas adjacent to the site (within 500 feet, as feasible) that could potentially be affected by project-related activities such as noise, vibration, increased human activity, and dust, etc. For any active nest(s) identified, the qualified biologist shall establish an appropriate buffer zone around the active nest(s). The appropriate buffer shall be determined by the qualified biologist based on species, location, and the nature of the proposed activities. Project activities shall be avoided within the buffer zone until the nest is deemed no longer active, as determined by the qualified biologist.

4.3.8.2 Mitigation Measures

No mitigation measures are applicable the proposed project.

4.3.9 Level of Significance after Mitigation

Potential impacts to biological resources from the proposed project would be addressed through compliance with Regulatory Compliance Measure BIO-1 and would be considered less than significant. The proposed project would have no significant and unavoidable adverse impacts related to biological resources.

4.3.10 Cumulative Impacts

As defined in the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for biological resources. The project site is heavily disturbed, with existing paving and light poles. Because the project site is located within the City of

Cypress, the cumulative area for biological impacts is the City. As described above, the proposed project would have less than significant impacts to federal and State listed species and waters of the United States or wetlands and would have less than significant effects on migratory birds and local tree policies. As the proposed project's impacts to biological resources would be limited, its contribution to cumulative biological impacts in consideration of the City of Cypress projects identified in Table 4.A, in Chapter 4.0, Existing Setting, Environmental Analysis, Impacts, and Mitigation Measures, would be considered less than significant.

As discussed earlier, the project site is located within the OCTA NCCP/HCP that covers the entirety of Orange County, including the City of Cypress. The City is not a party to the OCTA NCCP/HCP, and development activity within the City is not subject to the provisions of the OCTA NCCP/HCP. Therefore, the OCTA NCCP/HCP does not apply to the proposed project. Additionally, the project site is not located within a designated habitat reserve and, therefore, the proposed project would not contribute to the loss of natural habitat in the City. The development of the proposed project would not result in the removal of any sensitive habitat species identified in the OCTA NCCP/HCP. Therefore, the proposed project would not contribute to the cumulative loss of biological resources, and impacts on biological resources would be less than cumulatively significant.

This page intentionally left blank

4.4 CULTURAL RESOURCES

This section evaluates the potential for the Cypress Town Center Project (proposed project) to impact cultural resources. Cultural resources are sites, buildings, structures, objects, and districts over 50 years old that may have traditional or cultural value for the historical significance they possess. The information and analysis presented in this section is based on the *Record Search Results for the Cypress Town Center Project in Cypress, Orange County, California* (LSA Project No. CCP1603.08) (November 2020). The complete study is contained in Appendix D.

The term "site" is used in two contexts in this section:

- "Project site" refers to the approximately 7-acre site proposed for development.
- "Cultural resources site" refers to the specific locations of documented cultural materials or artifacts.

4.4.1 Scoping Process

The City of Cypress (City) received four comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this Draft Environmental Impact Report (EIR). No comment letter(s) included comments related to cultural resources.

4.4.2 Methodology

A cultural resources study was conducted for the proposed project, and was documented in the *Record Search Results for the Cypress Town Center Project in Cypress, Orange County, California* (LSA Project No. CCP1603.08) (LSA 2020). The study describes the results of a record search conducted for the project site and surrounding 0.25 mile. The cultural resources record search was conducted on October 19, 2020, by staff at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton. The purpose of the records search was to determine the extent of previous cultural resources investigations within a 0.25-mile radius of the project site, and whether any previously recorded archaeological sites or other historic resources exist within or near the project site. Materials reviewed included reports of previous cultural resources investigations, archaeological site records, historical maps, and listings of resources on the National Register of Historic Places (National Register), the California Register of Historical Resources (California Register), California Points of Historical Interest, California Historical Landmarks, and National Historic Landmarks. In addition to the SCCIC archival search, historic maps and aerial photographs[1] of the project site were analyzed to assess the potential for subsurface historic-period archaeological deposits at the project site.

No native soils are visible on the surface of the project site due to development, paving, and maintained landscaping. As such, no cultural resources field survey was conducted for the proposed project since any cultural resources observed in unpaved areas would be in a disturbed context.

[1] Nationwide Environmental Title Research (NETR). 2020 Historic Aerials. Website: https://www.historicaerials.com/viewer (accessed October 30, 2020).

4.4.2.1 Results

The cultural resources study, which consisted of background research, identified no cultural resources within the project site. Five previous cultural resources studies were identified during the background research; three studies which included the project site and two which included the 0.25-mile radius of the project site. As a result of previous cultural resources studies, no cultural resources have been recorded within the project site. One cultural resources has been recorded within the 0.25-mile radius (P-30-176854, the historic-period Navy Golf Course in Seal Beach).

4.4.3 Existing Environmental Setting

The area that is now Cypress (including the project site) was prehistorically occupied by the Gabrielino Native American people. The project site is on a property located south of Vessels Circle and west of Walker Street on the southeast portion of the existing Los Alamitos Race Course parking lot. The project site has been subject to previous development and currently exists as either paved areas or maintained landscaping.

4.4.4 Regulatory Setting

This section includes applicable federal, State, regional, and City regulations.

4.4.4.1 Federal Regulations

No federal regulations are applicable to the proposed project.

4.4.4.2 State Regulations

California Environmental Quality Act (CEQA) Requirements. CEQA defines a "historical resource" as a resource that meets one or more of the following criteria: (1) listed in, or determined eligible for listing in, the California Register; (2) listed in a local register of historical resources as defined in Public Resources Code (PRC) Section 5020.1(k); (3) identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); or (4) determined to be a historical resource by a project's lead agency (PRC Section 21084.1 and *State CEQA Guidelines* Section 15064.5(a)). A historical resource consists of:

> "Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California…. Generally, a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing on the California Register of Historical Resources" *State CEQA Guidelines* Section 15064.5(a)(3).

In accordance with *State CEQA Guidelines* Section 15064.5(b), a substantial adverse change in the significance of a historical resource is a significant effect on the environment.

CEQA requires a lead agency to determine whether an archaeological cultural resource meets the definition of a historical resource, a unique archaeological resource, or neither (*State CEQA*

Guidelines Section 15064.5(c)). Prior to considering potential impacts, the lead agency must determine whether an archaeological cultural resource meets the definition of a historical resource in *State CEQA Guidelines* Section 15064.5(c)(1). If the archaeological cultural resource meets the definition of a historical resource, it is treated like any other type of historical resource in accordance with *State CEQA Guidelines* Section 15126.4. Historical resources have the full advantage of mitigation measures, and treatment of historical resources can include documentation of the resource, avoidance measures, measures for preservation in place, and, as a last resort, data recovery for consequential information about the resource. If the archaeological cultural resource does not meet the definition of a historical resource, then the lead agency determines whether it meets the definition of a unique archaeological resource as defined in *State CEQA Guidelines* Section 21083.2(g). In practice, however, most archaeological sites that meet the definition of a unique archaeological resource will also meet the definition of a historical resource. Should the archaeological cultural resource meet the definition of a unique archaeological resource, it must be treated in accordance with *State CEQA Guidelines* Section 21083.2. If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. Treatments for archaeological resources can include, but are not limited to, avoidance measures, capping or covering sites adequately, or planning parks or open space to incorporate archaeological sites. If the archaeological cultural resource does not meet the definition of a historical resource or an archaeological resource, the effects to the resource are not considered significant effects on the environment (*State CEQA Guidelines* Section 15064.5(c)(4)).

California Health and Safety Code Section 7050.5. California Health and Safety Code Section 7050.5 states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the Coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the Coroner's authority. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification. The NAHC will identify a Native American Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.

Public Resources Code Section 5097.5. PRC Section 5097.5 provides for the protection of cultural resources and prohibits the removal, destruction, injury, or defacement of archaeological features on any lands under the jurisdiction of State or local authorities.

California Register of Historical Resources (PRC Section 5020 et seq.). State law also protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources in CEQA documents. A cultural resource is an important historical resource if it meets any of the criteria found in *State CEQA Guidelines* Section 15064.5(a). These criteria are nearly identical to those for the National Register, which are listed above.

The State Historic Preservation Officer (SHPO) maintains the California Register. Properties listed, or formally designated eligible for listing, on the National Register are nominated to the California Register and then selected to be listed on the California Register, as are State Landmarks and Points of Interest.

The California Register criteria are based on National Register criteria. For a property to be eligible for inclusion in the California Register, one or more of the following criteria must be met:

1. It is associated with the events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;

2. It is associated with the lives of persons important to local, California, or national history;

3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; and/or

4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition to meeting one or more of the above criteria, the California Register requires that sufficient time has passed since a resource's period of significance to "obtain a scholarly perspective on the events or individuals associated with the resource." Fifty years is used as a general estimate of time needed to develop the perspective to understand the resource's significance (California Code of Regulations [CCR] 4852[d][2]).

The California Register also requires that a resource possess integrity, which is defined as "the authenticity of an historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance" (CCR 4852[c]). To retain integrity, a resource should have its original location, design, setting, materials, workmanship, feeling, and association. Which of these factors is most important depends on the particular criterion under which the resource is considered eligible for listing.

4.4.4.3 Regional Regulations

There are no regional regulations that are applicable to cultural resources relevant to the proposed project.

4.4.4.4 Local Regulations

Cypress General Plan. The Conservation/Open Space/Recreation (COSR) Element (2000) of the Cypress General Plan identifies goals and policies related to cultural resources (and includes references to paleontological resources). Goal COSR-5 is to "preserve Cypress' archaeologic and paleontologic resources" through implementation of two policies: COSR-5.1 and COSR-5.2. Policy COSR-5.1 is "to update records of resource finds and locations when required" and COSR-5.2 states that "Prior to development in previously undeveloped areas, [the City will] require strict adherence to the CEQA guidelines for environmental documentation and mitigation measures where development will affect archaeological or paleontological resources."

4.4.5 Thresholds of Significance

The thresholds for impacts to cultural resources used in this analysis are consistent with Appendix G of the *State CEQA Guidelines* and the City's *Initial Study/Environmental Checklist*. The proposed project may be deemed to have a significant impact with respect to cultural resources if it would:

Threshold 4.4.1: **Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?**

Threshold 4.4.2: **Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?**

Threshold 4.4.3: **Disturb any human remains, including those interred outside of dedicated cemeteries?**

4.4.6 Project Impacts

Threshold 4.4.1: **Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?**

No Impact. According to the City of Cypress General Plan, there are no known archaeological resources located in Cypress. Further, the SCCIC record search results identified no previously recorded cultural resources on or in soils on the project site. As such, there are no known historical resources as defined in Section 15064.5 of the *State CEQA Guidelines* located within the project site. The proposed project would not cause a substantial adverse change in the significance of a known historical resource, and no mitigation is required.

Threshold 4.4.2: **Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?**

Less Than Significant with Mitigation Incorporated. The SCCIC record search included the project site and the areas within 0.25 mile of the project site. No subsurface archaeological studies have included the project site or the area surrounding the project site and no archaeological resources have been previously recorded within the project site. No cultural resources field survey was conducted for the proposed project since any cultural resources observed in unpaved areas would be in a disturbed context due to development, paving, and maintained landscaping. According to the project Geotechnical Evaluation[1], Artificial Fill was noted throughout the project site beneath the existing asphalt to depths of approximately 3 to 4 feet and the sediments under Artificial Fill date to a time period that includes human occupation of the area. Overall grading in the project site would extend to a depth of approximately 4 feet below the existing surface, and excavation depths for underground utilities would reach a maximum of 7 feet. As such, the majority of project grading/over-excavation would occur in Artificial Fill and only trenching activities for utilities would take place entirely in previously undisturbed sediments with potential to encounter subsurface archaeological resources from either the precontact or historic periods (LSA 2020).

Mitigation Measure 4.4.-1, as detailed below, requires monitoring by a qualified archaeologist during trenching activities for utilities only and prescribes procedures for treatment of cultural resources during grading and or excavation activities. The measure includes procedures for recovering any significant or unique archaeological resource and for preparation of a report that

[1] Geotek, Inc. 2019. *Geotechnical Evaluation for Proposed Multi-family Residential Development South of Vessels Circle and West of Walker Street, City of Cypress, Orange County, California* (Geotechnical Evaluation).

documents any cultural resource recovery at the project site. With implementation of Mitigation Measure 4.4-1, impacts to previously unrecorded cultural resources would be reduced to less than significant.

Threshold 4.4.3: Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant Impact. Although no human remains are known to be on the project site or are anticipated to be discovered during project construction, there is always a possibility of encountering unanticipated cultural resources, including human remains. Disturbing human remains could violate the State's Health and Safety Code as well as destroy the resource. Regulatory Compliance Measure CUL-1, as detailed below, requires compliance with the State's Health and Safety Code for the treatment of human remains. Adherence to regulatory standards included in Regulatory Compliance Measure CUL-1 would reduce the impact of the proposed project on human remains to less than significant. No mitigation is required.

4.4.7 Level of Significance Prior to Mitigation

No impacts to historical resources would occur. Prior to mitigation, the proposed project has the potential to result in significant impacts to unknown archaeological resources. With adherence to the regulatory standards in Regulatory Compliance Measure CUL-1, the project would result in less than significant impacts to previously undiscovered buried human remains.

4.4.8 Regulatory Compliance Measures and Mitigation Measures

4.4.8.1 Regulatory Compliance Measures

The following regulatory compliance measure is an existing regulation that is applicable to the proposed project and is considered in the analysis of potential impacts related to cultural resources. The City of Cypress considers this requirement to be mandatory; therefore, it is not a mitigation measure.

Regulatory Compliance Measure CUL-1 **Human Remains.** If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County of Orange (County) Coroner has made a determination of origin and disposition pursuant to State Public Resources Code (PRC) Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American, the County Coroner would notify the Native American Heritage Commission (NAHC), which would determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection and make recommendations or preferences for treatment within 48 hours of being

granted access to the site. The MLD recommendations may include scientific removal and nondestructive analysis of human remains and items associated with Native American burials, preservation of Native American human remains and associated items in place, relinquishment of Native American human remains and associated items to the descendants for treatment, or any other culturally appropriate treatment.

4.4.8.2 Mitigation Measures

Mitigation Measure 4.4-1

Cultural Resources Monitoring and Accidental Discovery. Prior to the issuance of grading permits, and in adherence to the recommendations of the *Record Search Results for the Cypress Town Center Project in Cypress, Orange County, California* (LSA Project No. CCP1603.08) (November 2020), the Applicant/Developer shall retain a qualified archaeological monitor with approval of the City of Cypress (City) Community Development Director, or designee. A monitoring plan shall be prepared by the archaeologist and implemented upon approval by the City. The monitor shall be present full-time during trenching activities for utilities only, not during over excavation or building footing excavations or during demolition or clearing/grubbing of existing landscape.

If cultural materials are discovered during any grading or excavation, the Construction Contractor shall divert all earthmoving activity within and around the immediate discovery area until a qualified archaeologist can assess the nature and significance of the find. Project personnel shall not collect or move any archaeological materials or human remains and associated materials. To the extent feasible, project activities shall avoid these deposits. Where avoidance is not feasible, the archaeological deposits shall be evaluated for their eligibility for listing in the California Register of Historical Resources. If the deposits are not eligible, avoidance is not necessary. If the deposits are eligible, adverse effects on the deposits must be avoided, or such effects must be mitigated. Mitigation can include, but is not necessarily limited to: excavation of the deposit in accordance with a data recovery plan (see California Code of Regulations [CCR] Title 4(3) Section 5126.4(b)(3)(C)) and standard archaeological field methods and procedures; laboratory and technical analyses of recovered archaeological materials; production of a report detailing the methods, findings, and significance of the archaeological site and associated materials; curation of archaeological materials at an appropriate facility for future research and/or display; an interpretive display of recovered archaeological materials at a local

school, museum, or library; and public lectures at local schools and/or historical societies on the findings and significance of the site and recovered archaeological materials. The City Community Development Director, or designee, shall be responsible for reviewing any reports produced by the archaeologist to determine the appropriateness and adequacy of the findings and recommendations.

4.4.9 Level of Significance after Mitigation

No impacts to historical resources would occur. With adherence to the regulatory standards in Regulatory Compliance Measure CUL-1, the project would result in less than significant impacts to previously undiscovered buried human remains. Mitigation Measure 4.4-1 would reduce potential impacts to unknown archaeological resources to a less than significant level. No significant and unavoidable impacts to archaeological resources would occur with implementation of this mitigation measure. After mitigation has been implemented, all anticipated impacts to cultural resources would be considered less than significant.

4.4.10 Cumulative Impacts

Potential impacts of the proposed project to unknown cultural resources, when combined with the impacts of past, present, and reasonably foreseeable projects in the City of Cypress, could contribute to a cumulatively significant impact due to the overall loss of historical and archaeological artifacts unique to the region.

Each development proposal received by the City is required to comply with the requirements of CEQA, including an environmental review, if applicable. If there were any potential for significant impacts to archaeological resources as a result of present or reasonably foreseeable projects in the City of Cypress, an investigation would be required to determine the nature and extent of the resources and identify appropriate mitigation measures. When archaeological resources are assessed and/or protected as they are discovered, impacts to these resources are less than significant.

As such, implementation of Regulatory Compliance Measure CUL-1 and Mitigation Measure 4.4-1 would ensure that the proposed project, together with cumulative projects, would not result in a significant cumulative impact to unique archaeological and historical resources.

4.5 ENERGY

This section discusses energy use resulting from implementation of the Cypress Town Center Project (proposed project) and evaluates whether the proposed project would result in the wasteful, inefficient, or unnecessary consumption of energy resources or conflict with any applicable plans for renewable energy and energy efficiency. The energy use analysis in this section is based on information from the California Emissions Estimator Model (CalEEMod) version 2016.3.2 modeling results in Appendix B of this Environmental Impact Report (EIR).

4.5.1 Scoping Process

The City of Cypress (City) received four comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this EIR. No comment letter(s) included comments related to energy.

4.5.2 Methodology

The analysis of electricity/natural gas usage is based on the CalEEMod modeling conducted by LSA, which quantifies energy use for project operations. Fuel consumption (diesel fuel and gasoline) from vehicle trips during operation was estimated for the opening year (2023) of the proposed project based on trip estimates from the CalEEMod model and fuel efficiencies from the California Air Resources Board's (CARB) EMission FACtor Model (EMFAC2017) model. Estimates of fuel consumption (diesel fuel and gasoline) from construction trucks and construction worker vehicles were based on trip estimates from the CalEEMod model and fuel efficiencies from the CARB EMFAC2017 model.

The analysis focuses on the four sources of energy that are relevant to the proposed project: electricity, natural gas, the equipment fuel necessary for project construction, and vehicle fuel necessary for project operations. For the purposes of this analysis, the amount of electricity, natural gas, construction fuel, and fuel use from operations are quantified and compared to that consumed in Orange County. The electricity/natural gas use of the proposed project is analyzed as a whole on an annual basis.

4.5.3 Existing Environmental Setting

4.5.3.1 Electricity

Electricity is a manmade resource. The production of electricity requires the consumption or conversion of energy resources (including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources) into energy. Electricity is used for a variety of purposes (e.g., lighting, heating, cooling, and refrigeration, and for operating appliances, computers, electronics, machinery, and public transportation systems).[1]

According to the most recent data available, in 2019, California's electricity was generated primarily by natural gas (34.23 percent), renewable sources (31.7 percent), large hydroelectric

[1] United States Energy Information Administration (EIA). 2020b. Electricity Explained. Website: https://www.eia.gov/energyexplained/electricity/ (accessed November 30, 2020).

(14.62 percent), nuclear (8.98 percent), and coal (2.96 percent). Total electric generation in California in 2019 was 277,704 gigawatt-hours (GWh), down 2 percent from the 2018 total generation of 285,488 GWh. In 2019, California produced approximately 72.2 percent and imported 27.8 percent of the electricity it used.[1]

The project site is within the service territory of Southern California Edison (SCE). SCE provides electricity to more than 15 million people in a 50,000-square-mile (sq mi) area of Central, Coastal, and Southern California.[2] According to the California Energy Commission (CEC), total electricity consumption in the SCE service area in 2019 was 80,913 GWh (27,324 GWh for the residential sector and 53,589 GWh for the non-residential sector). Total electricity consumption in Orange County in 2019 was 19,460 GWh (6,661 GWh for the residential sector).[3]

4.5.3.2 Natural Gas

Natural gas is a non-renewable fossil fuel. Fossil fuels are formed when layers of decomposing plant and animal matter are exposed to intense heat and pressure under the surface of the Earth over millions of years. Natural gas is a combustible mixture of hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas is found in naturally occurring reservoirs in deep underground rock formations. Natural gas is used for a variety of uses (e.g., heating buildings, generating electricity, and powering appliances such as stoves, washing machines and dryers, gas fireplaces, and gas grills).[4]

Natural gas consumed in California is used for electricity generation (45 percent), residential uses (21 percent), industrial uses (25 percent), and commercial uses (9 percent). California continues to depend on out-of-state imports for nearly 90 percent of its natural gas supply.[5]

The Southern California Gas Company (SoCalGas) is the natural gas service provider for the project site. SoCalGas provides natural gas to approximately 21.8 million people in a 24,000 sq mi service area throughout Central and Southern California, from Visalia to the Mexican border.[6] According to the CEC, total natural gas consumption in the SoCalGas service area in 2019 was 5,425 million

---

1 California Energy Commission (CEC). 2020a. *2019 Total System Electric Generation*. Website: https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2019-total-system-electric-generation (accessed November 20, 2020).

2 Southern California Edison (SCE). 2020. About Us. Website: https://www.sce.com/about-us/who-we-are (accessed October 2020).

3 CEC. 2020b. Electricity Consumption by County and Entity. Website: http://www.ecdms.energy.ca.gov/elecbycounty.aspx and http://www.ecdms.energy.ca.gov/elecbyutil.aspx (accessed October 2020).

4 EIA. 2020c. Natural Gas Explained- Use of Natural Gas. Website: https://www.eia.gov/energyexplained/index.php?page=natural_gas_use (accessed October 2020).

5 CEC. 2020d. Supply and Demand of Natural Gas in California. Website: https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california (accessed October 2020).

6 Southern California Gas Company (SoCalGas). 2020. About SoCalGas. Website: https://www3.socalgas.com/about-us/company-profile (accessed October 2020).

therms (2,419 million therms for the residential sector). Total natural gas consumption in Orange County in 2019 was 623 million therms (382 million therms for the residential sector).[1]

4.5.3.3 Petroleum/Transportation Energy

Petroleum is also a non-renewable fossil fuel. Petroleum is a thick, flammable, yellow-to-black mixture of gaseous, liquid, and solid hydrocarbons that occurs naturally beneath the earth's surface. Petroleum is primarily recovered by oil drilling. It is refined into a large number of consumer products, primarily fuel oil, gasoline, and diesel.

Gasoline is the most used transportation fuel in California, with 97 percent of all gasoline being consumed by light-duty cars, pickup trucks, and sport utility vehicles. According to the most recent data available, total gasoline consumption in California was 365,610 thousand barrels or 1,847.8 trillion British Thermal Units (BTU) in 2018.[2] Of the total gasoline consumption, 349,108 thousand barrels or 1,764.4 trillion BTU were consumed for transportation.[3] Based on fuel consumption obtained from EMFAC2017, approximately 164 million gallons of diesel and approximately 1.3 billion gallons of gasoline were consumed from vehicle trips in Orange County in 2019.

4.5.4 Regulatory Setting

This section will include applicable federal, State, regional, and City regulations. Federal Regulations

Energy Policy Act of 2005. The Energy Policy Act of 2005 seeks to reduce reliance on non-renewable energy resources and provide incentives to reduce current demand on these resources. For example, under this Act, consumers and businesses can obtain federal tax credits for purchasing fuel-efficient appliances and products (including hybrid vehicles), building energy-efficient buildings, and improving the energy efficiency of commercial buildings. Additionally, tax credits are available for the installation of qualified fuel cells, stationary microturbine power plants, and solar power equipment.

Safer Affordable Fuel-Efficient Vehicles Rule. On March 21, 2020, the USEPA and National Highway Traffic Safety Administration (NHTSA) finalized the *Safer Affordable Fuel-Efficient* (SAFE) *Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks* (SAFE Vehicles Rule). The SAFE Vehicles Rule amends certain existing Corporate Average Fuel Economy and tailpipe CO_2 emissions standards for passenger cars and light trucks and establish new standards, all covering model years 2021 through 2026. More specifically, NHTSA set new Corporate Average Fuel Economy standards for model years 2022 through 2026 and amended its 2021 model year Corporate Average Fuel Economy standards, and the USEPA amended its CO_2 emissions standards for model years 2021 and later.

---

1 CEC. 2020c. Gas Consumption by County and Entity. Website: http://www.ecdms.energy.ca.gov/gasbycounty.aspx and http://www.ecdms.energy.ca.gov/gasbyutil.aspx (accessed October 2020).

2 A British Thermal Unit is defined as the amount of heat required to raise the temperature of one pound of water by one degree Fahrenheit.

3 EIA. 2020a. California State Profile and Energy Estimates. Table F3: Motor gasoline consumption, price, and expenditure estimates, 2018. Website: eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_mg.html&sid=CA (accessed October 2020).

4.5.4.2 State Regulations

Assembly Bill 1575, Warren-Alquist Act. In 1975, largely in response to the oil crisis of the 1970s, the State Legislature adopted Assembly Bill (AB) 1575 (also known as the Warren-Alquist Act), which created the CEC. The statutory mission of the CEC is to forecast future energy needs; license power plants of 50 megawatts (MW) or larger; develop energy technologies and renewable energy resources; plan for and direct State responses to energy emergencies; and, perhaps most importantly, promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code (PRC) Section 21100(b)(3) and *State CEQA Guidelines* Section 15126.4 to require EIRs to include, where relevant, mitigation measures proposed to minimize the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F to the *State CEQA Guidelines*. Appendix F assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. Appendix F of the *State CEQA Guidelines* also states that the goal of conserving energy implies the wise and efficient use of energy and the means of achieving this goal, including (1) decreasing overall per capita energy consumption; (2) decreasing reliance on fossil fuels such as coal, natural gas, and oil; and (3) increasing reliance on renewable energy sources.

Senate Bill 1389, Energy: Planning and Forecasting. In 2002, the State Legislature passed Senate Bill (SB) 1389, which required the CEC to develop an integrated energy plan every 2 years for electricity, natural gas, and transportation fuels for the California Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero emission vehicles (ZEVs) and their infrastructure needs, and encouragement of urban designs that reduce vehicle miles traveled (VMT) and accommodate pedestrian and bicycle access.

The most recently adopted report is the 2019 Integrated Energy Policy Report.[1]

Renewable Portfolio Standards. SB 1078 established the California Renewable Portfolio Standards program in 2002. SB 1078 initially required that 20 percent of electricity retail sales be served by renewable resources by 2017; however, this standard has become more stringent over time. In 2006, SB 107 accelerated the standard by requiring that the 20 percent mandate be met by 2010. In April 2011, SB 2 required that 33 percent of electricity retail sales be served by renewable resources by 2020. In 2015, SB 350 established tiered increases to the Renewable Portfolio Standards of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. In 2018, SB 100 increased the requirement to 60 percent by 2030 and required that all State's electricity to come from carbon-free resources by 2045. SB 100 took effect on January 1, 2019.[2]

---

1 CEC. 2019. *2019 Integrated Energy Policy Report.* California Energy Commission. Docket #19-IEPR-01.

2 California Public Utilities Commission (CPUC). 2020. Renewables Portfolio Standard (RPS) Program. Website: https://www.cpuc.ca.gov/rps/ (accessed October 2020).

Title 24, California Building Code. Energy consumption by new buildings in California is regulated by the Building Energy Efficiency Standards, embodied in Title 24 of the California Code of Regulations (CCR), known as the California Building Code (CBC). The CEC first adopted the Building Energy Efficiency Standards for Residential and Nonresidential Buildings in 1978 in response to a legislative mandate to reduce energy consumption in the State. The CBC is updated every 3 years, and the current 2019 CBC went into effect on January 1, 2020. The efficiency standards apply to both new construction and rehabilitation of both residential and non-residential buildings, and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit process. Local government agencies may adopt and enforce energy standards for new buildings, provided these standards meet or exceed those provided in CCR Title 24.

California Green Building Standards Code (CALGreen Code). In 2010, the California Building Standards Commission (CBSC) adopted Part 11 of the Title 24 Building Energy Efficiency Standards, referred to as the California Green Building Standards Code (CALGreen Code). The CALGreen Code took effect on January 1, 2011. The CALGreen Code is updated on a regular basis, with the most recent update consisting of the 2019 CALGreen Code standards that became effective January 1, 2020. The CALGreen Code established mandatory measures for residential and non-residential building construction and encouraged sustainable construction practices in the following five categories: (1) planning and design, (2) energy efficiency, (3) water efficiency and conservation, (4) material conservation and resource efficiency, and (5) indoor environmental quality. Although the CALGreen Code was adopted as part of the State's efforts to reduce greenhouse gas (GHG) emissions, the CALGreen Code standards have co-benefits of reducing energy consumption from residential and non-residential buildings subject to the standard.

California Energy Efficiency Strategic Plan. On September 18, 2008, the California Public Utilities Commission (CPUC) adopted California's first Long-Term Energy Efficiency Strategic Plan, presenting a roadmap for energy efficiency in California. The Plan articulates a long-term vision and goals for each economic sector and identifies specific near-term, mid-term, and long-term strategies to assist in achieving those goals. The Plan also reiterates the following four specific programmatic goals known as the "Big Bold Energy Efficiency Strategies" that were established by the CPUC in Decisions D.07-10-032 and D.07-12-051:

- All new residential construction will be zero net energy (ZNE) by 2020.
- All new commercial construction will be ZNE by 2030.
- 50 percent of commercial buildings will be retrofitted to ZNE by 2030.
- 50 percent of new major renovations of State buildings will be ZNE by 2025.

4.5.4.3 Regional Regulations

There are no regional energy regulations that apply to the proposed project.

4.5.4.4 Local Regulations

Cypress Municipal Code. The City of Cypress has adopted the 2019 California Green Building Standards Code (CALGreen Code) and incorporated the CALGreen Code by reference into the City

Municipal Code (Chapter 5, Buildings, Article 1, Building Code, Section 5-1 California Building Codes – Adopted).

Cypress General Plan Conservation/Open Space/Recreation Element. The following goals and policies are applicable to the proposed project:

COSR-3: Conserve energy resources through the use of available technology and conservation practices.

COSR-3.1: Encourage innovative site planning and building designs that minimize energy consumption by taking advantage of sun/shade patterns, prevailing winds, landscaping, and building materials.

COSR-3.2: Encourage new development and existing structures to install energy saving features.

4.5.5 Thresholds of Significance

The thresholds for energy impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines* and the City's *Initial Study/Environmental Checklist*. The proposed project may be deemed to have a significant impact with respect to energy if it would:

Threshold 4.5.1: **Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

Threshold 4.5.2: **Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?**

4.5.6 Project Impacts

Threshold 4.5.1: **Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

Less Than Significant Impact. The proposed project would increase the demand for energy through day-to-day operations and fuel consumption associated with project construction. This section discusses energy use resulting from implementation of the proposed project and evaluates whether the proposed project would result in the wasteful, inefficient, or unnecessary consumption of energy resources or conflict with any applicable plans for renewable energy and energy efficiency.

Construction. Construction of the proposed project is anticipated to last approximately 27 months, and would require energy for activities such as the manufacture and transportation of building materials, grading activities, and building construction. Construction of the proposed project would require electricity to power construction-related equipment. Construction of the proposed project would not involve the consumption of natural gas. The construction-related equipment would not be powered by natural gas, and no natural gas demand is anticipated during construction.

Transportation energy represents the largest energy use during construction and would occur from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction worker vehicles that would use petroleum fuels (e.g., diesel fuel and/or gasoline). Therefore, the analysis of energy use during construction focuses on fuel consumption. Construction trucks and vendor trucks hauling materials to and from the project site would be anticipated to use diesel fuel, whereas construction workers traveling to and from the project site would be anticipated to use gasoline-powered vehicles. Fuel consumption from transportation uses depends on the type and number of trips, VMT, the fuel efficiency of the vehicles, and the travel mode.

As indicated in Table 4.5.A, the project would consume approximately 117,936 gallons of diesel fuel and approximately 70,533 gallons of gasoline during construction. Based on fuel consumption obtained from EMFAC2017, approximately 164 million gallons of diesel and approximately 1.3 billion gallons of gasoline were consumed from vehicle trips in Orange County in 2019. Therefore, construction of the proposed project would increase the annual construction generated fuel use in Orange County by approximately 0.07 percent for diesel fuel usage and less than 0.01 percent for gasoline fuel usage. As such, project construction would have a negligible effect on local and regional energy supplies. Furthermore, impacts related to energy use during construction would be temporary and relatively small in comparison to Orange County's overall use of the State's available energy resources. No unusual project characteristics would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or the State.

Table 4.5.A: Proposed Project Energy Consumption Estimates

Energy Type	Annual Energy Consumption	Percentage Increase Countywide
Project Construction		
Diesel Fuel (total gallons)	117,936	0.07
Gasoline (total gallons)	70,533	<0.01
Project Operation		
Electricity Consumption (kWh/year)	379,499	<0.01
Natural Gas Consumption (therms/year)	15,147	<0.01
Automotive Fuel Consumption		
Gasoline (gallons/year)	93,459	0.01
Diesel Fuel (gallons/year)	9,834	0.01

Source: Compiled by LSA (November 2020).
kWh = kilowatt-hours

For these reasons, fuel consumption during construction would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature, and impacts would be less than significant. No mitigation is required.

Operation. Energy use consumed by the proposed project would be associated with natural gas use, electricity consumption, and fuel used for vehicle trips associated with the project. As shown in Table 4.5.A, the estimated potential increase in electricity demand associated with the operation of the proposed project is 379,499 kilowatt-hours (kWh) per year. Total electricity demand in Orange County in 2019 was approximately 19,460 GWh (19,460,000,000 kWh). Therefore, operation of the

proposed project would increase the annual electricity consumption in Orange County by less than 0.01 percent.

As shown in Table 4.5.A, the estimated potential increase in natural gas demand associated with the proposed project is 15,147 therms per year. Total natural gas consumption in Orange County in 2019 was approximately 623 million therms (623,000,000 therms). Therefore, operation of the proposed project would negligibly increase the annual natural gas consumption in Orange County by less than 0.01 percent.

Electrical and natural gas demand associated with project operations would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region. Furthermore, the proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. The project would be required to adhere to all federal, State, and local requirements for energy efficiency, including the Title 24 standards. Title 24 building energy efficiency standards establish minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. Compliance with Title 24 standards is required as identified in Regulatory Compliance Measure AQ-5, detailed in Section 4.2, Air Quality, of this Draft EIR, which would substantially reduce energy usage. Impacts are considered less than significant, and no mitigation is required.

The proposed project would also result in energy usage associated with gasoline and diesel fuel consumed by project-related vehicle trips. As shown in Table 4.5.A, fuel use associated with the vehicle trips generated by the proposed project is estimated at 93,459 gallons of gasoline and 9,834 gallons of diesel fuel per year. The amount of operational fuel use was estimated using CARB's EMFAC2017 model, which provided projections for typical daily fuel usage in Orange County. This analysis conservatively assumes that all vehicle trips generated as a result of project operation would be new to Orange County. Based on fuel consumption obtained from EMFAC2017, approximately 164 million gallons of diesel and approximately 1.3 billion gallons of gasoline were consumed from vehicle trips in Orange County in 2019. Therefore, operation of the proposed project would increase the annual gasoline and diesel fuel consumption in Orange County by 0.01 percent. Fuel consumption associated with vehicle trips generated by project operations would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region.

The proposed project would develop housing in close proximity to existing and future commercial and retail uses. Furthermore, as described in Section 3.4, Project Characteristics, in Chapter 3.0, Project Description, the proposed project is envisioned as a higher density housing development adjacent to commercial and employment opportunities to encourage pedestrian access and provide a consumer base for commercial uses and to help meet the existing and future housing needs of all Cypress residents. The proposed project would also provide pedestrian connections to adjacent parcels to provide connectivity and convenient access to the nearby existing and future commercial and retail uses. In addition, the proposed development would be located within an area of the City that is planned as a mixed-use, sustainable community. The Land Use Districts established in the Specific Plan area are organized such that residential uses are located in close proximity to employment centers and retail uses, thereby promoting alternative forms of transportation (e.g.,

walking and cycling) and reducing vehicle miles traveled. Overall, the nearby transit facilities and proposed improvements to the pedestrian network would support public transit use and walking and bicycling. Furthermore, the project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Impacts are considered less than significant, and no mitigation is required.

Threshold 4.5.2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. In 2002, the Legislature passed SB 1389, which required the CEC to develop an integrated energy plan every two years for electricity, natural gas, and transportation fuels for the Integrated Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for ZEVs and their infrastructure needs, and encouragement of urban designs that reduce VMT and accommodate pedestrian and bicycle access.

The CEC recently adopted the *2019 Integrated Energy Policy Report*.[1] The Integrated Energy Policy Report provides the results of the CEC's assessments of a variety of energy issues facing California. The City of Cypress relies on the State integrated energy plan and does not have its own local plan to address renewable energy or energy efficiency.

As indicated above, energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the overall use in the County. In addition, energy usage associated with operation of the proposed project would be relatively small in comparison to the overall use in Orange County, and the State's available energy resources. Therefore, energy impacts at the regional level would be negligible. Because California's energy conservation planning actions are conducted at a regional level, and because the proposed project's total impact on regional energy supplies would be minor, the proposed project would not conflict with or obstruct California's energy conservation plans as described in the CEC's Integrated Energy Policy Report. Additionally, as demonstrated above under Threshold 4.5.1, the proposed project would not result in the inefficient, wasteful, and unnecessary consumption of energy. Potential impacts related to conflict with or obstruction of a State or local plan for renewable energy or energy efficiency would be less than significant, and no mitigation is required.

4.5.7 Level of Significance Prior to Mitigation

Energy impacts related to the inefficient, wasteful, and unnecessary consumption of energy are considered less than significant, and no mitigation is required.

[1] CEC. 2019. *2019 Integrated Energy Policy Report.* California Energy Commission. Docket # 19-IEPR-01.

4.5.8 Regulatory Compliance Measures and Mitigation Measures

4.5.8.1 Regulatory Compliance Measures

The proposed project would comply with Regulatory Compliance Measure AQ-5, as detailed in Section 4.2, Air Quality, of this Draft EIR.

4.5.8.2 Mitigation Measures

No mitigation is required for the proposed project.

4.5.9 Level of Significance after Mitigation

Construction and operational impacts related to energy use would be less than significant. No mitigation is required.

4.5.10 Cumulative Impacts

The geographic area for cumulative analysis of electricity is that of the SCE service area, while the geographic area for cumulative analysis of natural gas service is that of the SoCalGas service area. The proposed project would result in an increased services demand in electricity and natural gas. Although the proposed project would result in a net increase in demand for electricity, this increase would not require SCE to expand or construct infrastructure that could cause substantial environmental impacts. As discussed previously, total electricity consumption in the SCE service area in 2019 was 80,913 GWh. By 2030, consumption is anticipated to increase by approximately 12,000 GWh for the low-demand scenario and by 22,000 GWh for the high-demand scenario.[1] While this forecast represents a large increase in electricity consumption, the proposed project's share of cumulative consumption would negligible. The proposed project, in combination with cumulative development, is well within SCE's system-wide net annual increase in electricity supplies over the 2018 to 2030 period, and there are sufficient planned electricity supplies in the region for estimated net increases in energy demands.

Similarly, additional natural gas infrastructure is not anticipated due to cumulative development. Total natural gas consumption in the SoCalGas service area in 2019 was 5,425 million therms. Between 2018 and 2030, total natural gas consumption in the SoCalGas service area is forecast to remain steady for the low- and mid-demand scenarios and to increase by approximately 650 million therms in the high-demand scenario due to intense energy efficiency efforts.[2] The proposed project's share of cumulative consumption of natural gas in the SoCalGas service area would be negligible. It is anticipated that SoCalGas would be able to meet the natural gas demand of the related projects without additional facilities. In addition, both SCE and SoCalGas demand forecasts include the growth contemplated by the proposed project and the related projects. Increased energy efficiency to comply with building energy efficiency standards will reduce energy consumption on a per-square-foot basis. Furthermore, utility companies are required to increase their renewable energy sources to meet the Renewable Portfolio Standards mandate of 60 percent

---

1 CEC. 2018. *California Energy Demand, 2018–2030 Revised Forecast*. Publication Number: CEC-200-2018-002-CMF. February. Website: https://efiling.energy.ca.gov/getdocument.aspx?tn=223244 (accessed October 2020).

2 Ibid.

renewable supplies by 2030. SCE and SoCalGas plan to continue to provide reliable service to their customers and upgrade their distribution systems as necessary to meet future demand.

Transportation energy use would also increase; however, this transportation energy use would not represent a major amount of energy use when compared to the amount of existing development and to the total number of vehicle trips and VMT throughout Orange County and the region. The proposed project and related projects are required to comply with various federal and State government legislation to improve energy efficiency in buildings, equipment, and appliances, and reduce VMT.

Compliance with Regulatory Compliance Measure AQ-5 would ensure that the proposed project does not result in an inefficient, wasteful, and unnecessary consumption of energy. Therefore, the proposed project's contribution to impacts related to the inefficient, wasteful, and unnecessary consumption of energy would not be cumulatively considerable, and no mitigation is required.

This page intentionally left blank

4.6 GEOLOGY AND SOILS

This section provides a discussion of the existing geology and soils setting and an analysis of the Cypress Town Center Project's (proposed project) potential geology and soils impacts. In addition, this section addresses potential impacts due to the local geology underlying the project site, as well as slope stability, ground settlement, soil conditions, grading, and regional and local seismic conditions. This section also evaluates potential impacts to paleontological resources, and summarizes information provided in the *Geotechnical Evaluation for Proposed Multi-Family Residential Development South of Vessels Circle and West or Walker Street, City of Cypress, Orange County, California* (Geotechnical Assessment) (GeoTek, Inc. [GeoTek], August 12, 2019). This report is included as Appendix E to this Draft Environmental Impact Report (EIR). Additionally, this section summarizes the results of a locality search conducted by the Natural History Museum of Los Angeles County (NHMLA), provided in Appendix E. This section also incorporates data from the City of Cypress (City) General Plan (City of Cypress 2000), numerous State and federal studies of geologic and seismic hazards in the vicinity of the City, site-specific investigations in the project site, and field observations.

4.6.1 Scoping Process

The City of Cypress received four comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this EIR. No comment letter(s) included comments related to Geology and Soils.

4.6.2 Methodology

To assess the impacts of the proposed project with respect to geologic and soil conditions, GeoTek conducted a Geotechnical Assessment and field explorations, and reviewed previous geotechnical reports prepared by others with respect to the project site. The discussion below describes the scope of the exploration, including methods used during site reconnaissance and the results of pertinent prior explorations, laboratory tests, and engineering analyses.

4.6.2.1 Background Research and Data Review

Existing geologic literature (i.e., geologic maps, boring logs, and other applicable data) was reviewed by GeoTek.

4.6.2.2 Field Investigation

A preliminary field investigation was conducted by GeoTek to identify subsurface conditions on the project site. The soils underlying the site were explored on July 12 and 29, 2019, by means of excavating four cone penetrometer test (CPT) soundings to maximum depths of 50 feet (ft) below the ground surface and five exploratory borings to depths between 21.0 and 51.5 ft. In addition, one temporary monitoring well to a depth of about 30 ft was installed within the northwestern region of the site in order to assess groundwater conditions that may affect the future site development. The CPT soundings were excavated with a 30-ton CPT rig and the borings and monitoring well were drilled with a truck mounted hollow-stem auger drill rig. An engineer from this firm kept detailed logs of the borings and obtained disturbed as well as undisturbed soil samples for laboratory testing.

4.6.2.3 Laboratory Testing

Laboratory testing was performed on selected relatively undisturbed and bulk soil samples collected during the field exploration. The purpose of the laboratory testing was to confirm the field classification of the soil materials encountered and to evaluate the soils physical properties for use in the engineering design and analysis. Results of the laboratory testing program along with a brief description and relevant information regarding testing procedures are included in Appendix C of the Geotechnical Assessment.

4.6.2.4 Paleontological Research

To assess the impacts of the project with respect to paleontological resources, plans, geologic maps of the project site, and relevant geological and paleontological literature were reviewed to determine which geologic units are present within the project site and whether fossils have been recovered within the project site or from those or similar geologic units elsewhere in the region. In addition, a search for known fossil localities was conducted at the Natural History Museum of Los Angeles County (NHMLA) to determine the status and extent of previously recorded paleontological resources within and surrounding the project site (provided in Appendix E). Because the project site has already been disturbed and a majority of it is paved, a field survey for paleontological resources was not conducted as part of this research.

4.6.3 Existing Environmental Setting

4.6.3.1 Project Site

The project site mostly consists of an asphalt concrete-paved parking lot; however, some landscaping is present along the northern edge of the project site adjacent to the Los Alamitos Race Course parking lot. The site has a generally flat topography with a gentle fall of about 2 to 4 ft to the south-southwest. Surface drainage is to the south-southwest.

4.6.3.2 Regional Geology

The project site is situated in the Peninsular Ranges geomorphic province. The Peninsular Ranges province is one of the largest geomorphic units in western North America. It extends roughly 975 miles from the north and extends from the Transverse Ranges geomorphic province to the tip of Baja California, from north to south. This province varies in width from about 30 to 100 miles. It is bounded on the west by the Pacific Ocean, on the south by the Gulf of California and on the east by the Colorado Desert Province.

The Peninsular Ranges are essentially a series of northwest-southeast oriented fault blocks. Several major fault zones are found in this province. The Elsinore Fault zone and the San Jacinto Fault zone trend northwest-southeast and are found in the near the middle of the province. The San Andreas Fault zone borders the northeasterly margin of the province. More specific to the project site, Roffers, P.D. and T.L Bedrossian (2010) map the site to be underlain by Holocene to Late Pleistocene age younger alluvial fan deposits. Additionally, the nearest known active fault to the site is the Los Alamitos fault located approximately 2.3 miles to the southwest.

4.6.3.3 Local Geology and Subsurface Conditions

Undocumented fill was encountered in all exploratory borings below the existing asphalt concrete pavement to depths of about 3 to 4 ft. The fill consisted of interbedded layers of silty sand, clayey sand, sandy silt, and sandy clay, which were brown in color, moist to very moist, and soft/loose to medium stiff/dense.

Alluvial deposits were encountered in borings below the fill and extended to the maximum depth explored of about 51.5 ft. The alluvium encountered generally consisted of alternating layers of silty sand, poorly graded sand, sandy silt, and clay. The alluvium was brown to gray in color, moist to saturated, and loose/soft to medium dense/stiff to the total depth explored, based field observations, blow counts, and in-place density determinations. Similar soil conditions were noted in the CPT soundings. The near surface site soils tested were found to have "very low" to "low" expansion potential when tested and classified in accordance with American Society of Testing and Materials (ASTM) D 4829.

4.6.3.4 Local Groundwater Conditions

Information pertaining to the occurrence of groundwater within inland portions of Orange County has primarily been obtained from borehole logs prepared during installation of the numerous water wells throughout the area.

Pore pressure dissipation tests conducted at selected levels in three of the CPT soundings indicate that the depth to groundwater at the project site is about 6 to 7 ft. This agrees with the measurements conducted in the monitoring well installed within the northwestern edge of the site, which indicate that groundwater is about 5 to 6 ft deep.

Review of the *Historically Highest Groundwater Map* published within the *Seismic Hazard Zone Report for the Los Alamitos 7.5-Minute Quadrangle* (DOC 1998a*)* reveal past high groundwater levels on the order of 10 to 20 ft in the general area of the site.

The GeoTracker database shows records for a property located about one-third of a mile southwest of the site, with depth to groundwater ranging from 5 to 8 ft. This information concurs with the groundwater levels recorded during the field investigation.

4.6.3.5 Fault Systems and Seismic Conditions

The geologic structure of the entire southern California area is dominated mainly by northwest-trending faults associated with the San Andreas system. The site is in a seismically active region. No active or potentially active fault is known to exist at this site, nor is the site situated within an "Alquist-Priolo" Earthquake Fault Zone (Bryant and Hart 2007; DOC 2010). The project site is located within a State of California Seismic Hazard Zone for earthquake induced liquefaction (DOC 1998b); however, it is not located within a State of California Seismic Hazard Zone for earthquake-induced landsliding. The nearest known active fault to the site is the Los Alamitos fault located approximately 2.3 miles to the southwest.

4.6.3.6 Liquefaction and Lateral Spreading

Liquefaction occurs when saturated, cohesionless soils temporarily lose shear strength (liquefy) due to increased pore water pressures induced by strong ground motion during an earthquake. Intervals of loose sand may, therefore, be subject to liquefaction if these materials are or were to become submerged and also exposed to strong seismic ground shaking. Seismic ground shaking of relatively loose, granular soils that are saturated or submerged can cause the soils to liquefy and temporarily behave as a dense fluid. This loss of support can produce local ground failure such as settlement or lateral spreading that may damage overlying improvements.

Lateral spreading typically occurs as a form of horizontal displacement of relatively flat-lying alluvial material toward an open or "unconfined" face such as an open body of water, channel, or excavation. In soils, this movement is generally due to failure along a weak plane and is often associated with liquefaction.

As discussed in the Geotechnical Assessment, the project site is located within a Liquefaction Hazard Zone, as designated by the California Geological Survey. This zone extends well beyond the project site and encompasses all of the land area within the boundaries of the City of Cypress, as well as large portions of the adjacent Cities of Los Alamitos, Garden Grove, Stanton, Anaheim, and Buena Park. The Safety Element of the City's General Plan identifies the project site as an area at a potentially high risk of liquefaction.

4.6.3.7 Subsidence

The phenomenon of widespread land sinking, or subsidence, is generally related to substantial overpumping of groundwater or petroleum reserves from deep underground reservoirs. Like most of northern Orange County, the City lies atop the Orange County Groundwater Basin (Orange County Basin). Although slight subsidence has been observed elsewhere in the Orange County Basin in Santa Ana (likely due to groundwater withdrawal) and in the Huntington Beach area (likely due to oil withdrawal), there is no recent history of subsidence in the project vicinity.[1] Groundwater levels and storage in the Orange County Basin are managed by the Orange County Water District (OCWD) in a manner that reduces the potential for land subsidence to occur.

4.6.3.8 Compressible/Collapsible Soils

Compressible soils are soils that consolidate when exposed to new loading, such as Artificial Fill or foundation loads. Soil collapse occurs when soils substantially decrease in volume following an increase in moisture content. The results of the subsurface investigation within the project site, as well as investigations conducted for previous reports, indicate that the majority of the project site is underlain by fill soil that extends to depths of 2 to 5 ft below the surface. In localized areas, this fill may extend as deep as 9 ft.

[1] Metropolitan Water District of Southern California. 2007. Groundwater Assessment Study, Chapter IV – Groundwater Basin Reports, Orange County Basins – Orange County Basin, September. Website: http://www.mwdh2o.com/PDF_About_Your_Water/Groundwater_Assessment_Study_Report.pdf (accessed November 12, 2020).

During the subsurface investigation, the presence of medium to firm native alluvial soils was noted from a depth of approximately 10 ft to a depth of approximately 30 ft below the existing ground surface.

4.6.3.9 Paleontological Resources

Results of the literature review indicate that the project site is located within the Peninsular Ranges Geomorphic Province, a 900-mile long northwest-southeast trending structural block that extends from the Transverse Ranges in the north to the tip of Baja California in the south and includes the Los Angeles Basin (CGS 2002; Norris and Webb 1976). The total width of this province is 225 miles, extending from the Colorado Desert in the east, across the continental shelf, to the Southern Channel Islands (Santa Barbara, San Nicolas, Santa Catalina, and San Clemente) in the west (Sharp, 1976). This province is characterized by a series of mountain ranges and valleys that trend in a northwest-southeast direction roughly parallel to the San Andreas Fault Zone (Norris and Webb 1976; Sharp 1976). It contains extensive pre-Cenozoic (more than 66 million years ago [Ma]) igneous and metamorphic rocks covered by a veneer of Cenozoic (66 Ma to Present) sedimentary deposits (Norris and Webb 1976). Within this larger region, the project site is located in the Los Angeles Basin, a broad alluvial lowland bounded to the north and east by the San Gabriel and Santa Ana Mountains, respectively, and by the Pacific Ocean to the southwest (Yerkes et al. 1965). The basin is underlain by a structural depression that has discontinuously accumulated thousands of feet of marine and terrestrial deposits since the late Cretaceous (approximately 100.5 Ma) (Yerkes et al. 1965). Over millions of years, the basin has experienced episodes of subsidence, deposition, uplift, erosion, and faulting, all of which have resulted in very complex geology (Yerkes et al. 1965). The surface of the basin slopes gently southwestward toward the ocean, interrupted in various places by low hills and traversed by several large rivers (Sharp 1976; Yerkes et al. 1965), including the Los Angeles River, the Rio Hondo, the San Gabriel River, and the Santa Ana River. Geologic mapping by Saucedo et al. (2016) shows that the entire project area is underlain by Young Alluvium, Unit 2, which is Holocene to late Pleistocene in age (less than 129,000 years ago). This geologic unit and its paleontological sensitivity are described in more detail below. Although not mapped by Saucedo et al. (2016), Artificial Fill was noted throughout the project site beneath the existing asphalt to depths of approximately 3 to 4 ft (GeoTek, Inc. 2019). Dates for the geologic intervals referenced in above are derived from the *International Chronostratigraphic Chart* published by the International Commission on Stratigraphy (Cohen et al. 2020).

Artificial Fill consists of sediments that have been removed from one location and transported to another location by human activity, rather than by natural means. The transportation distance can vary from a few feet to many miles, and composition is dependent on the source and purpose. Artificial Fill will sometimes contain modern debris such as asphalt, wood, bricks, concrete, metal, glass, plastic, and even plant material. While Artificial Fill may contain fossils, these fossils have been removed from their original location and are thus out of stratigraphic context. Therefore, they are not considered important for scientific study, and Artificial Fill has no paleontological sensitivity.

The Young Alluvium, Unit 2 is Holocene to late Pleistocene in age (less than 129,000 years ago) and consist predominantly of poorly consolidated, poorly sorted, permeable deposits of sand, silt, and clay (Saucedo et al. 2016). These sediments accumulated adjacent to stream and river channels and represent deposition by streams and rivers during flood events (Saucedo et al. 2016). Although

Holocene (less than 11,700 years ago) deposits can contain remains of plants and animals, only those from the middle to early Holocene (4,200 to 11,700 years ago) are considered scientifically important (Society of Vertebrate Paleontology [SVP] 2010), and fossils from this time interval are not very common. These Holocene deposits overlie older, Pleistocene deposits, which have produced scientifically important fossils elsewhere in the region (Jefferson 1991a, 1991b; Miller 1971; Reynolds and Reynolds 1991; Springer et al. 2009). These older, Pleistocene deposits span the end of the Rancholabrean North American Land Mammal Age (NALMA), which dates from 11,000 to 240,000 years ago (Sanders et al. 2009) and was named for the Rancho La Brea fossil site in central Los Angeles. The presence of *Bison* defines the beginning of the Rancholabrean NALMA (Bell et al. 2004), but fossils from this time also include other large and small mammals, reptiles, fish, invertebrates, and plants (Jefferson 1991a, 1991b; Miller 1971; Reynolds and Reynolds 1991; Springer et al. 2009). There is a potential to find these types of fossils in the older sediments below this geologic unit, which may be encountered below a depth of approximately 10 ft. Therefore, these deposits are assigned a low paleontological sensitivity above a depth of 10 ft and a high sensitivity below that mark.

According to the locality search conducted by the NHMLA, there are no known fossil localities on the project site. However, the museum has records of five fossil localities near the project site from the same or similar sedimentary deposits as those occurring in the project site. A copy of the letter describing the locality search results from the LACM is provided in Appendix E.

4.6.4 Regulatory Setting

4.6.4.1 Federal Regulations

There are no federal policies or regulations related to geology and soils that are applicable to the proposed project.

4.6.4.2 State Regulations

Alquist-Priolo Earthquake Fault Zoning Act (1972). The Alquist-Priolo Earthquake Fault Zoning Act of 1972 and updates (California PRC, Section 2621, et seq.) is the principal California State guidance to prevent the construction of habitable structures on the surface trace of active earthquake faults. If an active fault is found, a structure for human occupancy must be set back from the fault (generally 50 ft). The Alquist-Priolo Earthquake Fault Zoning Act only addresses the hazard of surface fault rupture; it does not consider other earthquake hazards. There are no known earthquake fault zones on or in the near vicinity of the project site; therefore, regulations recommended by the California Geological Survey (CGS) for investigations conducted in such zones do not specifically apply.

Seismic Hazard Mapping Act (1990). The Seismic Hazard Mapping Act (SHMA) was adopted by the State in 1990 to address the potential hazards posed by secondary effects of seismic activity, including strong ground shaking, soil liquefaction, and associated ground failure and seismically induced landslides. The CGS prepares and provides local governments with seismic hazard zone maps that identify areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures. The seismic hazard zones are referred to as “zones of required investigation” because site-specific geological investigations are required for construction projects

located within these areas. Before a project can be permitted, a geologic investigation, evaluation, and written report must be prepared by a licensed geologist to demonstrate that the potential hazards can be successfully mitigated.

Public Resources Code. Section 5097.5 of the PRC provides for the protection of cultural and paleontological resources and prohibits the removal, destruction, injury, or defacement of archaeological and paleontological features on any lands under the jurisdiction of State or local authorities.

4.6.4.3 Local Regulations

City of Cypress Municipal Code. Building and construction in the City are subject to the regulations of the City of Cypress Municipal Code. California Code of Regulations (CCR), Title 24, Part 2, the California Building Code (CBC) (2019), provides minimum standards for building design in the State. Local codes are permitted to be more restrictive than Title 24, but not less restrictive. The procedures and limitations for the design of structures are based on site characteristics, occupancy type, configuration, structural system height, and seismic design category. The seismic ratings used in the CBC are derived from the International Building Code specifications. Most of coastal Southern California, including the project site, is located in Seismic Design Category D. Construction activities are subject to occupational safety standards for excavation, shoring, and trenching as specified in the California Occupational Safety and Health Administration (Cal/OSHA) regulations (CCR, Title 8). In addition, the proposed project would adhere to the seismic and building standards in the City's Building Code that adopt the CBC with amendments and modifications.

City of Cypress General Plan Conservation/Open Space/Recreation Element. The existing City of Cypress General Plan identifies goals and policies related to paleontological resources. Goal COSR-5 in the Conservation/Open Space/Recreation Element of the City's General Plan addresses paleontological resources (and potential resources) and indicates that conservation of the resources and investigation of potential resource areas is an important undertaking for connecting with the community's past (City of Cypress 2000).

The following goal and policies apply to the proposed project:

COSR-5: Preserve Cypress' archaeologic and paleontological resources.

COSR-5.1: Update records of resource finds and locations when required.

COSR-5.2: Prior to development in previously undeveloped areas, require strict adherence to the CEQA guidelines for environmental documentation and mitigation measures where development will affect archaeological or paleontological resources.

4.6.5 Thresholds of Significance

The thresholds for geology and soils impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines* and the City's *Initial Study/Environmental Checklist*. The proposed project may be deemed to have a significant impact with respect to geology and soils if it would:

Threshold 4.6.1: **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**

- **(i): Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidences of known fault? (Refer to Division of Mines and Geology Special Publication 42)**
- **(ii): Strong seismic ground shaking?**
- **(iii): Seismic-related ground failure, including liquefaction?**
- **(iv): Landslides?**

Threshold 4.6.2: **Result in substantial soil erosion or the loss of topsoil?**

Threshold 4.6.3: **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-site or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse?**

Threshold 4.6.4: **Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating direct or indirect substantial risks to life or property?**

Threshold 4.6.5: **Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?**

Threshold 4.6.6: **Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

4.6.6 Project Impacts

Threshold 4.6.1(i): **Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: 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 evidences of known fault? (Refer to Division of Mines and Geology Special Publication 42)**

No Impact. According to the California Department of Conservation 2010 Fault Activity Map, there are no known earthquake faults that run through the project site, nor is there any other evidence of a known fault that runs through the project site. Therefore, although the proposed project is in a seismically active region, it would not result in any impact related to the rupture of a known earthquake fault, and there would be no impact.

Threshold 4.6.1(ii): Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Strong seismic ground shaking?

Less Than Significant with Mitigation Incorporated. As with all of Southern California, the project site is subject to strong ground motion resulting from earthquakes on nearby faults. There are several faults in the vicinity of the project site that are capable of producing strong ground motion, including the Los Alamitos Fault, the Newport-Inglewood Fault, the Puente Hills Blind Thrust Fault, the San Joaquin Hills Thrust Fault, the Palos Verdes Fault, and the Whittier Fault. During an earthquake along any of these faults or other faults in the region, seismically induced ground shaking would be expected to occur. The severity of the shaking would be influenced by the magnitude of the earthquake, the distance of the project site to the seismic source, the soil conditions, the depth to groundwater, and the duration of the seismic event.

Peak ground acceleration (PGA) is a measure of earthquake acceleration on the ground and an important input parameter for earthquake engineering. Based on the Geotechnical Assessment, a design-level PGA of 0.55 g has been calculated for the project site. This acceleration is consistent with other areas in this region of California that are underlain by similar geologic materials and indicates that strong seismic ground shaking generated by seismic activity is considered a potentially significant impact that may affect people or structures associated with the proposed project.

Mitigation Measure 4.6-1 requires the Applicant/Developer to comply with the recommendations of the Geotechnical Assessment, which stipulates appropriate seismic design provisions that shall be implemented with project design and construction. The proposed project would adhere to the adopted City's Building Code, including the seismic standards therein, consistent with Regulatory Compliance Measure GEO-1. With the implementation of Mitigation Measure 4.6-1 and adherence to the regulatory standards described in Regulatory Compliance Measure GEO-1, potential project impacts related to seismic ground shaking would be reduced to a less than significant level.

Threshold 4.6.1(iii): Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Seismic-related ground failure, including liquefaction?

Less Than Significant with Mitigation Incorporated. The secondary effects of seismic activity that are typically considered as potential hazards to a particular site include several types of ground failure. The general types of ground failure that can occur as a consequence of severe ground shaking include landsliding, ground subsidence, ground lurching, and shallow ground rupture, as well as liquefaction-induced vertical settlement, lateral spreading, and surface manifestation of liquefaction. The probability of the occurrence of each type of ground failure depends on the severity of the earthquake, distance from the causative fault, topography, soil and groundwater conditions, and other factors. Of these seismically induced ground failure modes, liquefaction-induced settlement and surface manifestation appear to be the only potential concerns with respect to the proposed project.

Liquefaction can cause settlement of the ground surface, settlement and tilting of engineered structures, flotation of buoyant buried structures, and fissuring of the ground surface. Assessment

of liquefaction potential for a particular site requires knowledge of a number of regional and site-specific parameters, including the estimated design earthquake magnitude, the distance to the assumed causative fault, and the associated probable peak horizontal ground acceleration at the site, subsurface stratigraphy, and soil characteristics. Parameters such as distance to causative faults and estimated probable peak horizontal ground acceleration were determined using published references and online computer programs by the United States Geological Survey (USGS). Stratigraphy and soil characteristics were determined by means of a site-specific subsurface investigation combined with appropriate laboratory analysis of representative samples of on-site soils.

An analysis was performed using data from the previous CPT soundings conducted at the project site. As previously discussed, groundwater was observed at the monitoring well installed within the northwestern edge of the site to be about 5 to 6 ft deep. For purposes of the liquefaction analysis, the groundwater level was assumed to be 5 ft. Therefore, there is potential for liquefaction on the project site.

Many jurisdictions, including the Counties of Orange and Los Angeles, allow structural fortification of slabs and footings to mitigate the adverse effect of up to 4 inches of liquefaction-induced total settlement. Guidelines published by the CGS also suggest that structural mitigation is acceptable where vertical displacements of less than 4 inches are predicted (CGS 2008, Special Publication 117A, page 54). If liquefaction-induced settlement would exceed 4 inches, some form of ground improvement is required to reduce the potential total settlement to 4 inches or less. Typical ground improvement techniques include compaction grouting, installation of stone columns, and construction of reinforced earth zones beneath proposed structural areas.

Based on the results of the Geotechnical Assessment, the range of estimated vertical settlement was calculated to be approximately between 1.4 to 2.0 inches for the CPT locations within the project site. This is well within the commonly accepted limitations of structural mitigation described above (i.e., 4 inches).

Predicted liquefaction-induced total settlement with respect to most of the project site would be addressed by incorporating deep foundations or ground improvement for the larger buildings into the design (Mitigation Measure 4.6-1). Mitigation Measure 4.6-1 includes ground improvement recommendations (a combination of newly compacted fill and shallower ground improvement, such as aggregate and geogrid reinforcement) to mitigate potential impacts related to liquefaction-induced settlement. The undocumented fill in the project site would also be completely removed and replaced with engineered fill (Mitigation Measure 4.6-1). With implementation of Mitigation Measure 4.6-1, the potential adverse effects of seismic-related ground failure including liquefaction would be less than significant.

Threshold 4.6.1(iv): Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Landslides?

No Impact. The project site and vicinity are relatively flat, and the site is not located within a zone of earthquake induced landslide as mapped by the DOC (1998a). Historically, there have been no

recorded landslides within the City's boundaries (City of Cypress, 2001, page 4.6-7). No landslides are anticipated as the result of the proposed project, and there would be no impact.

Threshold 4.6.2: Would the project result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Most of the site is covered by older degraded asphalt. The northern boundary of the site consists of some landscaping, trees, shrubs, and turf. The total surface area of these existing unpaved areas is approximately 7 acres. As discussed in Section 4.9, Hydrology and Water Quality, during project construction activities, soil would be exposed and disturbed, drainage patterns would be temporarily altered during grading and other construction activities, and there would be an increased potential for soil erosion and siltation compared to existing conditions. Additionally, during a storm event, soil erosion and siltation could occur at an accelerated rate. As discussed above, the Construction General Permit requires preparation of a Storm Water Pollution Prevention Plan (SWPPP) (Regulatory Compliance Measure HYD-1, in Section 4.9, Hydrology and Water Quality). The SWPPP would detail Erosion Control and Sediment Control BMPs to be implemented during project construction to minimize erosion and retain sediment on site. With compliance with the requirements of the Construction General Permit and with implementation of the construction BMPs, construction impacts related to on-site erosion would be less than significant, and no mitigation is required.

As discussed in Section 4.9, Hydrology and Water Quality, the project would not increase the impervious surface area on site (impervious surface area on site would decrease by approximately 0.81 acre). In the proposed condition, approximately 5.84 acres of the project site would be impervious surface area and not prone to on-site erosion or siltation because no soil would be included in these areas. The remaining acreage of the approximately 7-acre project site would consist of pervious surface area, which would contain landscaping that would minimize on-site erosion and siltation by stabilizing the soil. Therefore, on-site erosion impacts would be minimal. For these reasons, operational impacts related to substantial on-site erosion would be less than significant, and no mitigation is required.

Threshold 4.6.3: Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse?

4.6.6.1 Landslides and Unstable Slopes

Less Than Significant Impact. Landslides and other forms of mass wasting, including mud flows, debris flows, and soil slips occur as soil moves downslope under the influence of gravity. Landslides are frequently triggered by intense rainfall or seismic shaking. Because the project site is located in a relatively flat area, landslides or other forms of natural slope instability do not represent a significant hazard to the project. In addition, as stated above, the site is not within a State-designated hazard zone for an earthquake-induced landslide. Therefore, potential impacts related to landslides would be less than significant, and no mitigation is required.

4.6.6.2 Lateral Spreading

Less Than Significant Impact. Lateral spreading often occurs on very gentle slopes or flat terrain. The dominant mode of movement is lateral extension accompanied by shear or tensile fracture. This failure is caused by liquefaction and is usually triggered by rapid ground motion, such as that experienced during an earthquake, but can also be artificially induced. When coherent material, either bedrock or soil, rests on materials that liquefy, the upper units may undergo fracturing and extension and may then subside, translate, rotate, disintegrate, or liquefy and flow. As discussed above, the Geotechnical Assessment indicates that lateral spreading is not a potential concern with respect to the proposed project. Therefore, potential impacts related to lateral spreading would be less than significant, and no mitigation is required.

4.6.6.3 Subsidence

No Impact. Subsidence refers to broad-scale changes in the elevation of land. Common causes of land subsidence are pumping water, oil, and gas from underground reservoirs; dissolution of limestone aquifers (sinkholes); collapse of underground mines; drainage of organic soils; and initial wetting of dry soils (hydrocompaction). Subsidence is also caused by heavy loads generated by large earthmoving equipment. The project site is not located within an area of known subsidence that may be associated with groundwater, peat loss, or oil extraction. Therefore, the proposed project would not be subject to potential geotechnical hazards related to subsidence, and no mitigation is required.

4.6.6.4 Liquefaction and Compressible/Collapsible Soils

Less Than Significant with Mitigation Incorporated. As discussed in detail under Threshold 4.6.1(iii) above, implementation of Mitigation Measure 4.6-1 and adherence to the regulatory standards described in Regulatory Compliance Measure GEO-1 would be required to address the proposed project's impacts with respect to liquefaction and compressible soils. Provided that design and remedial grading, ground improvement (as necessary), and design of building foundation systems are performed in accordance with the applicable requirements in the CBC (adopted by the City as its Building Code with certain amendments), and current standards of practice in the area, excessive settlement resulting from liquefaction and compression of existing undocumented fill and native alluvial soils on the project site would be reduced to a less than significant level.

4.6.6.5 Wet Soils

Less Than Significant with Mitigation Incorporated. Due the presence of shallow groundwater, excavations deeper than 3 to 4 ft are likely to encounter groundwater and/or soft, wet soil. Implementation of Mitigation Measure 4.6-1, which requires that the ground stabilization recommendations in the Geotechnical Assessment be implemented during grading and construction, would address soft ground conditions due to shallow groundwater. With implementation of Mitigation Measure 4.6-1, the proposed project's impacts related to wet soils would be less than significant.

Threshold 4.6.4: **Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating direct or indirect substantial risks to life or property?**

Less Than Significant Impact. Expansive soils are soils that experience volumetric changes in response to increases or decreases in moisture content. The project site stratigraphy consists of Artificial Fill and Quaternary Alluvium (GeoTek, Inc. 2019). These soil types have low shrink-swell potential and, therefore, are not susceptible to expansion. In the event that, following the completion of grading, it is determined that near-surface soils within building pad areas exhibit an elevated expansion potential, potential impact of those expansive soils would be addressed through design of structural foundations and floor slabs in compliance with applicable requirements in the CBC, as adopted by the City of Cypress in its Municipal Code (Regulatory Compliance Measure GEO-1). Since the potential for expansive soils is low and any potential expansion would be addressed through compliance with applicable code requirements, the proposed project would not create substantial potential risks to life or property, and there would be less than significant impacts.

Threshold 4.6.5: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The proposed project would not include the use of septic tanks or alternative wastewater disposal systems because sanitary sewer and wastewater facilities are available in the vicinity of the project site. Therefore, the project would have no impact with respect to septic tanks or alternative wastewater disposal systems.

Threshold 4.6.6: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant with Mitigation Incorporated. The project site contains Artificial Fill, which has no paleontological sensitivity, and Young Alluvium, Unit 2, which has low paleontological sensitivity from the surface to a depth of 10 ft and high paleontological sensitivity below 10 ft. With a maximum depth of less than 10 ft for excavation, the proposed project is expected to remain in deposits with no or low paleontological sensitivity. However, in the event that paleontological resources are encountered during construction, Mitigation Measure 4.6-2 would require work in the immediate area of the discovery to be halted and a qualified paleontologist contacted to assess the discovery. These procedures would mitigate potential impacts to scientifically significant, nonrenewable paleontological resources.

4.6.7 Level of Significance Prior to Mitigation

The proposed project would result in less than significant or no impacts related to the potential for surface fault rupture, erosion, subsidence, landslides, lateral spreading, and expansive soil, and no mitigation is required. The potential impacts related to seismic shaking, liquefaction, settlement due to undocumented fill, and wet soils would be potentially significant prior to mitigation. The proposed project would also have potentially significant impacts on paleontological resources prior to the implementation of mitigation.

4.6.8 Regulatory Compliance Measures and Mitigation Measures

4.6.8.1 Regulatory Compliance Measures

The following Regulatory Compliance Measure is a requirement of the CBC that is applicable to the proposed project and is considered in the analysis of potential impacts related to geology and soils. The City of Cypress considers this requirement to be mandatory; therefore, it is not a mitigation measure.

Regulatory Compliance Measure GEO-1

California Building Code Compliance Seismic Standards. All structures shall be designed in accordance with the seismic parameters presented in the Geotechnical Assessment prepared for this project (GeoTek, Inc. 2019) and applicable sections of the most current California Building Code (CBC). Prior to the issuance of building permits for planned structures, the Project Soils Engineer and the City of Cypress (City) Chief Building Official, or designee, shall review building plans to verify that the structural design conforms to the requirements of the Geotechnical Assessment and the City Municipal Code.

4.6.8.2 Mitigation Measures

In addition to the regulatory requirements described above, the following mitigation measures would reduce potential impacts related to seismic ground shaking, liquefaction, compressible/ collapsible soils, and paleontological resources to a less than significant level.

Mitigation Measure 4.6-1

Compliance with the Recommendations in the Project Geotechnical Assessment. The Applicant/Developer's Construction Contractor shall implement the recommendations of the *Geotechnical Evaluation for Proposed Multi-Family Residential Development South of Vessels Circle and West or Walker Street, City of Cypress, Orange County, California* (Geotechnical Assessment) (GeoTek, Inc. [GeoTek], August 12, 2019) Geotechnical Assessment) prepared for the proposed project, as applicable to the satisfaction of the City of Cypress' (City) Chief Building Official or designee, including, but not limited to:

1. To address potential liquefaction potential and seismically induced settlement, at a minimum, the upper 4 ft of soil shall be completely removed within the structural grading limits. The depth of removals should be extended, where needed, to eliminate any undocumented fill. Additional

removals may be recommended if unsuitable materials are exposed. As a minimum, removals shall extend down and away from foundation elements at a 1:1 (h:v) projection to the recommended removal depth, or a minimum of 5 ft laterally.

2. A minimum 24 inches of engineered fill shall be provided below the bottom of the proposed foundations. The Project Geotechnical Consultant and the City Director of Public Works/City Engineer, or designee, shall observe the bottom of all excavations. A minimum of 12 inches of engineered fill should be provided below asphaltic concrete pavement and Portland cement concrete hardscape areas. The horizontal extent of removals should extend at least 2 ft beyond the edge.

3. The bottom of removals may encounter very moist/ soft soils that may require stabilization. If required, to address shallow groundwater and wet soil, some type of ground stabilization, such as cement treatment or aggregate or a combination of both shall be used. Geofabric or geogrid is recommended in combination with aggregate to reduce the required depth of treatment, amount of aggregate and time required to backfill the excavations.

4. Concrete slabs shall be used for all foundations and slabs on grade and shall a minimum bearing capacity of 2,000 pounds per square foot (psf).

5. A moisture and vapor retarding system shall be placed below slabs-on-grade where moisture migration through the slab is undesirable. The system shall be designed per Section 4.505.2 of the current version of the California Green Building Standards Code (CALGreen Code) and the Section 1910.1 of the current version of the CBC.

Additional site testing and final design evaluation shall be conducted by the Project Geotechnical Consultant to refine and enhance these requirements. The Applicant/ Developer shall require the Project Geotechnical Consultant to assess whether the requirements in that report need to be modified or refined to address any

changes in the project features that occur prior to the start of grading. If the Project Geotechnical Consultant identifies modifications or refinements to the requirements, the Applicant/Developer shall require appropriate changes to the final project design and specifications. Design, grading, and construction shall be performed in accordance with the requirements of the City Municipal Code and the California Building Code (CBC) applicable at the time of grading, appropriate local grading regulations, and the requirements of the Project Geotechnical Consultant as summarized in a final written report, subject to review by the City Director of Public Works, or designee, prior to commencement of grading activities.

Grading plan review shall also be conducted by the City Director of Public Works, or designee, prior to the start of grading to verify that the requirements developed during the geotechnical design evaluation have been appropriately incorporated into the project plans. Design, grading, and construction shall be conducted in accordance with the specifications of the Project Geotechnical Consultant as summarized in a final report based on the CBC applicable at the time of grading and building, and the City's Building Code. On-site inspection during grading shall be conducted by the Project Geotechnical Consultant and the City Director of Public Works/City Engineer, or designee, to ensure compliance with geotechnical specifications as incorporated into project plans. Prior to the final grading permits, the Project Geotechnical Consultant shall submit a Final Testing and Observation Geotechnical Report for Rough Grading to the City Director of Public Works/City Engineer, or designee.

Mitigation Measure 4.6-2

Procedures for Unexpected Paleontological Resources Discoveries. In the event that paleontological resources are encountered, work in the immediate area of the discovery shall be halted and the Applicant/Developer shall retain a professional Paleontologist who meets the qualifications established by the Society of Vertebrate Paleontology to assess the discovery. The qualified, professional Paleontologist shall make recommendations regarding the treatment and disposition of the discovered resources, as well as the

need for subsequent paleontological mitigation, which may include, but not be limited to, paleontological monitoring; collection of observed resources; preservation, stabilization, and identification of collected resources; curation of resources into a museum repository; and preparation of a monitoring report of findings. The City of Cypress shall ensure that the recommendations from the qualified, professional Paleontologist shall be followed by the Applicant/ Developer.

4.6.9 Level of Significance after Mitigation

With implementation of Regulatory Compliance Measure GEO-1 and Mitigation Measures 4.6-1 and 4.6-2, all identified potentially significant impacts related to geotechnical hazards and paleontological resources would be reduced below a level of significance.

4.6.10 Cumulative Impacts

Typically, geology and soils impacts are specific to a particular project site and there is little, if any, cumulative relationship between the development of a proposed project and development within a larger cumulative area. Moreover, while seismic conditions are regional in nature, seismic impacts on a given project site are site-specific. For example, development within the project site would not alter geologic events or soil features/characteristics (such as ground shaking, seismic intensity, or soil expansion or compression). Therefore, the proposed project would not affect the level of intensity at which a seismic event on an adjacent site is experienced.

It is not anticipated that their development would have any geotechnical impact on the project site or the buildings that would be constructed as part of the proposed project, nor would the project have geotechnical impacts on any of the 13 related projects identified in Table 4.A, Summary of Related Projects, in Chapter 4.0, Existing Setting. Therefore, the proposed project and the applicable related projects would not have the potential to cause cumulatively significant adverse impacts related to geology and soils.

Potential impacts of the proposed project to unknown paleontological resources and unique geologic features, when combined with the impacts of past, present, and reasonably foreseeable projects in the City of Cypress, could contribute to a cumulatively significant impact due to the overall loss of paleontological remains unique to the region. However, each development proposal received by the City is required to undergo environmental review pursuant to the California Environmental Quality Act (CEQA). If there were any potential for significant impacts to paleontological resources or unique geologic features, an investigation would be required to determine the nature and extent of the resources and identify appropriate mitigation measures.

When resources are assessed and/or protected as they are discovered, impacts to these resources are less than significant. As such, implementation of Mitigation Measure 4.6-2 would ensure that the proposed project, together with cumulative projects, would not result in significant cumulative impacts to unique paleontological resources or unique geologic features.

This page intentionally left blank

4.7 GREENHOUSE GAS EMISSIONS

This section provides a discussion of global climate change (GCC), existing regulations pertaining to GCC, and an analysis of greenhouse gas (GHG) emissions associated with the Cypress Town Center Project (proposed project). This analysis used the California Emissions Estimator Model (CalEEMod) version 2016.3.2 to quantify the potential GHG emissions associated with both construction and operation of the proposed project. The CalEEMod output is contained in Appendix B of this Draft Environmental Impact Report (EIR).

4.7.1 Scoping Process

The City of Cypress (City) received four comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this EIR. No comment letter(s) included comments related to greenhouse gas emissions.

4.7.2 Methodology

The proposed project would result in criteria pollutant emissions from construction and operational sources. Construction activities would generate emissions at the site from off-road construction equipment, and on roadways as a result of construction-related truck hauling, vendor deliveries, and worker commuting. Operational activities would also generate emissions at the project site from miscellaneous on-site sources, such as natural gas combustion for cooking, heating, and landscaping equipment, and from operational-related traffic. As described above, this analysis used the CalEEMod to quantify the criteria pollutant emissions for both construction and operation of the proposed project. The maximum daily emissions are calculated for the criteria pollutants. The CalEEMod output is contained in Appendix B of this Draft EIR.

Guidance from the United States Environmental Protection Agency (USEPA), the California Air Resources Board (CARB), the Southern California Association of Governments (SCAG), and the South Coast Air Quality Management District (SCAQMD), the Traffic Operations Assessment (dated September 16, 2020) prepared by Ganddini Group Inc., and emissions modeling software (specifically, CalEEMod) were used to calculate the criteria pollutant emissions from the proposed project.

CalEEMod is a statewide program designed to calculate both criteria and GHG emissions from development projects in California. A description of this model is provided in Section 4.2.2, Methodology, of environmental Section 4.2, Air Quality.

4.7.3 Existing Environmental Setting

Global climate change (GCC) is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other significant changes in climate (e.g., precipitation or wind) that last for an extended period of time. The term "global climate change" is often used interchangeably with the term "global warming," but "global climate change" is preferred to "global warming" because it helps convey that there are other changes in addition to rising temperatures.

Climate change refers to any change in measures of weather (e.g., temperature, precipitation, or wind) lasting for an extended period (decades or longer). Climate change may result from natural factors

(e.g., changes in the sun's intensity), natural processes within the climate system (e.g., changes in ocean circulation), or human activities (e.g., the burning of fossil fuels, land clearing, or agriculture). The primary observed effect of GCC has been a rise in the average global tropospheric[1] temperature of 0.36 degrees Fahrenheit (°F) per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling shows that further warming may occur, which may induce additional changes in the global climate system during the current century. Changes to the global climate system, ecosystems, and the environment of the State could include higher sea levels, drier or wetter weather, changes in ocean salinity, changes in wind patterns, or more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and increased intensity of tropical cyclones. Specific effects in the State might include a decline in the Sierra Nevada snowpack, erosion of the State's coastline, and seawater intrusion in the San Joaquin Delta.

Global surface temperatures have risen by 1.33°F ±0.32°F over the last 100 years. The rate of warming over the last 50 years is almost double that over the last 100 years.[2] The latest projections, based on state-of-the-art climate models, indicate that temperatures in the State are expected to rise 3°F to 10.5°F by the end of the century.[3] The prevailing scientific opinion on climate change is that "most of the warming observed over the last 60 years is attributable to human activities."[4] Increased amounts of carbon dioxide (CO_2) and other GHGs are the primary causes of the human-induced component of warming. The observed warming effect associated with the presence of GHGs in the atmosphere (from either natural or human sources) is often referred to as "the greenhouse effect."[5]

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced GCC are:[6]

- Carbon dioxide (CO_2);
- Methane (CH_4);
- Nitrous oxide (N_2O);
- Hydrofluorocarbons (HFCs);

---

1 The troposphere is the zone of the atmosphere characterized by water vapor, weather, winds, and decreasing temperature with increasing altitude.

2 Intergovernmental Panel on Climate Change (IPCC). 2013. The Physical Science Basis - Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. AR5 Climate Change 2013: The Physical Science Basis. September 2013. Website: https://www.ipcc.ch/report/ar5/wg1/ (accessed October 2020).

3 California Energy Commission (CEC). 2006. Emission Performance Standards - SB 1368. September 29, 2006. Website: http://www.energy.ca.gov/emission_standards/ (accessed October 2020).

4 IPCC 2013. Op cit.

5 The temperature on Earth is regulated by a system commonly known as the "greenhouse effect." Just as the glass in a greenhouse allows heat from sunlight in and reduces the amount of heat that escapes, GHGs like CO_2, CH_4, and N_2O in the atmosphere keep the Earth at a relatively even temperature. Without the greenhouse effect, the Earth would be a frozen globe; thus, the naturally occurring greenhouse effect is necessary to keep our planet at a comfortable temperature.

6 The GHGs listed are consistent with the definition in AB 32 (Government Code 38505).

- Perfluorocarbons (PFCs); and
- Sulfur hexafluoride (SF_6).

Over the last 200 years, human activities have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, which some scientists believe can cause global warming. While GHGs produced by human activities include naturally occurring GHGs (e.g., CO_2, CH_4, and N_2O), some gases (e.g., HFCs, PFCs, and SF_6) are completely new to the atmosphere. Certain other gases (e.g., water vapor) are short-lived in the atmosphere compared to these GHGs, which remain in the atmosphere for significant periods of time and contribute to climate change in the long term. Water vapor is generally excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes (e.g., oceanic evaporation). For the purposes of this analysis, the term "GHGs" will refer collectively to the six gases identified in the bulleted list provided above.

These gases vary considerably in terms of global warming potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. GWP is based on several factors, including the relative effectiveness of a gas in absorbing infrared radiation and the length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of metric tons[1] of "CO_2 equivalents" (metric tons [MT] of CO_2e). For example, N_2O is 298 times more potent at contributing to global warming than CO_2. Table 4.7.A identifies the GWP for each GHG analyzed in this EIR.

Table 4.7.A: Global Warming Potential for Selected Greenhouse Gases

Pollutant	Lifetime (Years)	Global Warming Potential (100-year)[1]
Carbon Dioxide (CO_2)	~100[2]	1
Methane (CH_4)	12	25
Nitrous Oxide (N_2O)	121	298

Source: CARB. First Update to the Climate Change Scoping Plan (2014).

[1] The 100-year global warming potential estimates are from Section 8.7.1.2 of The Global Warming Potential Concept in the IPCC 2007 Fourth Assessment Report (AR4). Website: http://www.ipcc.ch/publications_ and_data/publications_ipcc_fourth_assessment_report_synthesis_report.htm (accessed December 2019).

[2] CO_2 has a variable atmospheric lifetime and cannot be readily approximated as a single number.

CARB = California Air Resources Board
CO_2 = carbon dioxide
IPCC = Intergovernmental Panel on Climate Change

The following discussion summarizes the characteristics of the six primary GHGs.

[1] A metric ton is equivalent to approximately 1.1 tons.

4.7.3.1 Carbon Dioxide

In the atmosphere, carbon generally exists in its oxidized form as CO_2. Natural sources of CO_2 include the respiration (breathing) of humans, animals, and plants; volcanic outgassing; decomposition of organic matter; and evaporation from the oceans. Human-caused sources of CO_2 include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. The Earth maintains a natural carbon balance, and when concentrations of CO_2 are upset, the system gradually returns to its natural state through natural processes. Natural changes to the carbon cycle work slowly, especially compared to the rapid rate at which humans are adding CO_2 to the atmosphere. Natural removal processes (e.g., photosynthesis by land- and ocean-dwelling plant species) cannot keep pace with this extra input of human-made CO_2, and consequently the gas is building up in the atmosphere. The concentration of CO_2 in the atmosphere has risen approximately 30 percent since the late 1800s.[1]

The transportation sector remained the largest source of GHG emissions in 2016, representing 39 percent of the State's GHG emissions inventory.[2] The largest emissions category within the transportation sector is on-road, which consists of passenger vehicles (cars, motorcycles, and light-duty trucks) and heavy-duty trucks and buses. Emissions from on-road sources constitute more than 92 percent of the transportation sector total. Industry and electricity generation were the State's second- and third-largest categories of GHG emissions, respectively.

4.7.3.2 Methane

CH_4 is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources of CH_4 include fires, geologic processes, and bacteria that produce CH_4 in a variety of settings (most notably, wetlands).[3] Anthropogenic sources include rice cultivation, livestock, landfills and waste treatment, biomass burning, and fossil fuel combustion (e.g., the burning of coal, oil, and natural gas). As with CO_2, the major removal process of atmospheric CH_4—a chemical breakdown in the atmosphere—cannot keep pace with source emissions, and CH_4 concentrations in the atmosphere are increasing. Total annual emissions of CH_4 in California are approximately 39.8 million tons, accounting for approximately 9 percent of GHG emissions in California in 2018.[4]

---

1 California Environmental Protection Agency (Cal/EPA). Climate Action Team Report to Governor Schwarzenegger and the Legislature. Website: https://research.fit.edu/media/site-specific/researchfitedu/coast-climate-adaptation-library/united-states/west-coast-amp-hawaix27i/california---statewide/Bonner-et-al.--2010.--Climate-Action-Team-Report-to-State-Officials.pdf (accessed October 2020).

2 California Environmental Protection Agency (Cal/EPA). California Air Resources Board (CARB). 2019. California Greenhouse Gas Emissions for 2000 to 2017 Trends of Emissions and Other Indicators. Website: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2017/ghg_inventory_trends_00-17.pdf (accessed November 2018).

3 United States Environmental Protection Agency (USEPA). 2010. Methane and Nitrous Oxide Emissions from Natural Sources. Website: https://nepis.epa.gov/Exe/ZyPDF.cgi/P100717T.PDF?Dockey=P100717T.PDF (accessed October 2020).

4 California Air Resources Board (CARB). 2020b. GHGs Descriptions and Sources in California. Website: ww2.arb.ca.gov/ghg-descriptions-sources (accessed October 2020).

4.7.3.3 Nitrous Oxide

N_2O is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for the majority of natural source emissions. N_2O is also a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion sources emit N_2O. The quantity of N_2O emitted varies according to the types of fuel, technology, and pollution control devices used, as well as maintenance and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human-generated N_2O emissions in California. N_2O emissions accounted for approximately 3 percent of GHG emissions in California in 2018.[1]

4.7.3.4 Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride

HFCs are primarily used as substitutes for O_3-depleting substances regulated under the Montreal Protocol.[2] PFCs and SF_6 are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and magnesium casting. There is no aluminum or magnesium production in California; however, the rapid growth in the semiconductor industry has resulted in greater use of PFCs. HFCs, PFCs, and SF_6 accounted for about 5 percent of GHG emissions in California in 2017.[3] There are no known project-related emissions of these three GHGs; therefore, these substances are not discussed further in this analysis.

4.7.4 Emissions Sources and Inventories

An emissions inventory that identifies and quantifies the primary human-generated sources and sinks of GHGs is a well-recognized and useful tool for addressing climate change. This section summarizes the latest information on global, national, State, and local GHG emissions inventories. However, because GHGs persist for a long time in the atmosphere, accumulate over time, and are generally well mixed, their impact on the atmosphere and climate cannot be tied to a specific point of emission.

4.7.4.1 Global Emissions

Worldwide emissions of GHGs in 2017 totaled 25.6 billion MT CO_2e.[4] Global estimates are based on country inventories developed as part of the programs of the United Nations Framework Convention on Climate Change (UNFCCC).

---

1 CARB. 2020b. GHGs Descriptions and Sources in California. Website: ww2.arb.ca.gov/ghg-descriptions-sources (accessed October 2020).

2 The Montreal Protocol is an international treaty that was approved on January 1, 1989, and was designated to protect the O_3 layer by phasing out the production of several groups of halogenated hydrocarbons that are believed to be responsible for O_3 depletion and are also potent GHGs.

3 CARB. 2020b. GHGs Descriptions and Sources in California. Website: ww2.arb.ca.gov/ghg-descriptions-sources (accessed October 2020).

4 United Nations Framework Convention on Climate Change (UNFCCC). 2019. GHG Data from UNFCCC. Website: https://unfccc.int/process/transparency-and-reporting/greenhouse-gas-data/ghg-data-unfccc (accessed October 2020).

4.7.4.2 United States Emissions

In 2018, the United States emitted about 6,677.8 MMT CO_2e. The total 2018 CO_2e emissions represent a 3.7 percent increase from 1990 to 2018, down from a high of 15.2 percent above 1990 levels in 2007. Overall, net emissions in 2018 increased 3.2 percent since 2017 and decreased 10.2 percent from 2005 levels. Of the six major sectors—residential, commercial, agricultural, industry, transportation, and electricity generation—transportation accounted for the highest amount of GHG emissions in 2018 (approximately 17.9 percent), with electricity generation second at 26.9 percent and emissions from industry third at 22.2 percent.[1]

4.7.4.3 State of California Emissions

According to CARB emissions inventory estimates, the State emitted approximately 425 MMT CO_2e emissions in 2018, 8 MMT CO_2e higher than 2017 levels and 6 MMT CO_2e below the 2020 GHG limit of 431 MMT CO_2e.[2]

CARB estimates that transportation was the source of approximately 40 percent of the State's GHG emissions in 2018, followed by industrial sources at 21 percent, and electricity generation at 15 percent. The remaining sources of GHG emissions were agriculture at 8 percent, residential activities at 6 percent, commercial activities at 4 percent, high-GWP gases at 5 percent, and recycling and waste at 2 percent.[3]

4.7.5 Regulatory Setting

4.7.5.1 Federal Regulations

The U.S. Environmental Protection Agency (USEPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The USEPA's final findings respond to the 2007 U.S. Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings did not themselves impose any emissions reduction requirements, but allowed the USEPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation.[4]

To regulate GHGs from passenger vehicles, the USEPA was required to issue an endangerment finding. The finding identifies emissions of six key GHGs—CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and SF_6— that have been the subject of scrutiny and intense analysis for decades

---

1 United States Environmental Protection Agency (USEPA). April 2020. Draft Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2018. Website: www.epa.gov/sites/production/files/2020-02/documents/us-ghg-inventory-2020-main-text.pdf (accessed October 2020).

2 CARB. 2020a. California Greenhouse Gas Emissions for 2000 to 2018. Website: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2018/ghg_inventory_trends_00-18.pdf?utm_medium=email&utm_source=govdelivery (accessed October 2020).

3 Ibid.

4 USEPA. 2009. EPA: Greenhouse Gases Threaten Public Health and the Environment: Science overwhelmingly shows greenhouse gas concentrations at unprecedented levels due to human activity. December 2009. Website: http://yosemite.epa.gov/opa/admpress.nsf/0/08D11A451131BCA585257685005BF252.240 (accessed October 2020).

by scientists in the United States and around the world. The first three are applicable to the proposed project's GHG emissions inventory because they constitute the majority of GHG emissions; per SCAQMD guidance, they are the GHG emissions that should be evaluated as part of a project's GHG emissions inventory.

U.S. Mandatory Reporting Rule for GHGs (2009). In response to the endangerment finding, the USEPA issued the Mandatory Reporting of GHGs Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 MT CO_2e or more per year are required to submit an annual report.

Safer Affordable Fuel-Efficient Vehicles Rule. On March 21, 2020, the USEPA and National Highway Traffic Safety Administration (NHTSA) finalized the *Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks* (SAFE Vehicles Rule). The SAFE Vehicles Rule amends certain existing Corporate Average Fuel Economy and tailpipe CO_2 emissions standards for passenger cars and light trucks and establish new standards, all covering model years 2021 through 2026. More specifically, NHTSA set new Corporate Average Fuel Economy standards for model years 2022 through 2026 and amended its 2021 model year Corporate Average Fuel Economy standards, and the USEPA amended its CO_2 emissions standards for model years 2021 and later.

USEPA Regulation of Stationary Sources under the Clean Air Act (Ongoing). Pursuant to its authority under the Clean Air Act, the USEPA has been developing regulations for new, large, stationary sources of emissions, such as power plants and refineries. Under former President Obama's 2013 Climate Action Plan, the USEPA was directed to develop regulations for existing stationary sources as well. However, in June 2019, the USEPA repealed the Clean Power Plan and implemented the Affordable Clean Energy rule under President Trump's Energy Independence Executive Order.

4.7.5.2 State Regulations

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

Executive Order S-03-05. EO S-03-05, signed June 1, 2005, set the following GHG reduction targets for the State:

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

Assembly Bill 32, the Global Warming Solutions Act (2006). Current State of California guidance and goals for reductions in GHG emissions are generally embodied in AB 32, the Global Warming Solutions Act. AB 32 was passed by the California State legislature on August 31, 2006, to place the State on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in EO S-03-05.

California Air Resources Board 2008 Scoping Plan. The final Scoping Plan was adopted by the CARB on December 11, 2008. The 2008 Scoping Plan identified that GHG emissions in California are anticipated to be 596 MMT CO_2e in 2020. In December 2007, CARB approved a 2020 emissions limit of 427 MMT CO_2e (471 million tons) for the State.[1] In order to effectively implement the emissions cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor GHG emissions levels for large stationary sources that generate more than 25,000 MT CO_2e per year, prepare a plan demonstrating how the 2020 deadline could be met, and develop appropriate regulations and programs to implement the plan by 2012.

First Update to the Scoping Plan. CARB completed a five-year update to the 2008 Scoping Plan, as required by AB 32. The First Update to the Scoping Plan, adopted May 22, 2014, highlights California's progress toward meeting the near-term 2020 GHG emissions reduction goals defined in the 2008 Scoping Plan. As part of the update, CARB recalculated the 1990 GHG emissions levels with the updated IPCC 2007 Fourth Assessment Report (AR4) GWP, and the 427 MMT CO_2e 1990 emissions levels and 2020 GHG emissions limits, established in response to AB 32, are slightly higher at 431 MMT CO_2e.[2]

As identified in the Update to the Scoping Plan, California is on track to meeting the goals of AB 32. However, the update also addresses the State's longer-term GHG goals in a post-2020 element. The post-2020 element provides a high-level view of a long-term strategy for meeting the 2050 GHG goals, including a recommendation for the State to adopt a midterm target. According to the Update to the Scoping Plan, local government reduction targets should chart a reduction trajectory that is consistent with or exceeds the trajectory created by statewide goals.[3] CARB identified that reducing emissions to 80 percent below 1990 levels will require a fundamental shift to efficient, clean energy in every sector of the economy. Progressing toward California's 2050 climate targets will require significant acceleration of GHG reduction rates. Emissions from 2020 to 2050 will have to decline several times faster than the rate needed to reach the 2020 emissions limit.[4]

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

Senate Bill 32 and Assembly Bill 197. In September 2016, Governor Brown signed SB 32 and AB 197, making the Executive Order goal for year 2030 into a statewide mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires the CARB to

---

1 CARB. 2008. *Climate Change Proposed Scoping Plan: A Framework for Change*. October.

2 CARB. 2014. First Update to the Climate Change Scoping Plan: Building on the Framework, Pursuant to AB 32, The California Global Warming Solutions Act of 2006. May 15. Website: http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm (accessed October 2020).

3 Ibid.

4 Ibid.

prioritize direct emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.

2017 Climate Change Scoping Plan. EO B-30-15 and SB 32 required CARB to prepare another update to the Scoping Plan to address the 2030 target for the State. On December 24, 2017, CARB approved the 2017 Climate Change Scoping Plan Update, which outlines potential regulations and programs, including strategies consistent with AB 197 requirements, to achieve the 2030 target. The 2017 Scoping Plan establishes a new emissions limit of 260 MMT CO_2e for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030.[1]

California's climate strategy will require contributions from all sectors of the economy, including enhanced focus on zero- and near-zero emissions (ZE/NZE) vehicle technologies; continued investment in renewables, such as solar roofs, wind, and other types of distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (methane, black carbon, and fluorinated gases); and an increased focus on integrated land use planning, to support livable, transit-connected communities and conservation of agricultural and other lands. Requirements for GHG reductions at stationary sources complement local air pollution control efforts by the local air districts to tighten criteria air pollutants and toxic air contaminants emissions limits on a broad spectrum of industrial sources. Major elements of the 2017 Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing ZE buses and trucks.
- Low Carbon Fuel Standard (LCFS), with an increased stringency (18 percent by 2030).
- Implementation of SB 350, which expands the Renewables Portfolio Standard (RPS) to 50 percent RPS and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZE trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing methane and hydrofluorocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- Continued implementation of SB 375.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

[1] CARB. 2017. *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target.* November. Website: https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf (accessed October 2020).

In addition to these statewide strategies, the 2017 Climate Change Scoping Plan also identified local governments as essential partners in achieving the State's long-term GHG reduction goals and identified local actions to reduce GHG emissions. As part of the recommended actions, CARB recommends statewide targets of no more than 6 MT CO_2e or less per capita by 2030 and 2 MT CO_2e or less per capita by 2050. CARB recommends that local governments evaluate and adopt robust and quantitative locally appropriate goals that align with the statewide per capita targets and the State's sustainable development objectives and develop plans to achieve the local goals. The statewide per capita goals were developed by applying the percent reductions necessary to reach the 2030 and 2050 climate goals (i.e., 40 percent and 80 percent, respectively) to the State's 1990 emissions limit established under AB 32. For California Environmental Quality Act (CEQA) projects, CARB states that lead agencies have discretion to develop evidenced-based numeric thresholds (mass emissions, per capita, or per service population)—consistent with the Scoping Plan and the State's long-term GHG goals. To the degree a project relies on GHG mitigation measures, CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from vehicle miles traveled (VMT), and direct investments in GHG reductions within the project's region that contribute potential air quality, health, and economic co-benefits. Where further project design or regional investments are infeasible or not proven to be effective, CARB recommends mitigating potential GHG impacts through purchasing and retiring carbon credits.

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

Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target. SCAG's targets are an 8 percent per capita reduction from 2005 GHG emissions levels by 2020 and a 13 percent per capita reduction from 2005 GHG emissions levels by 2035.[1] The 2020 targets are smaller than the 2035 targets because a significant portion of the built environment in 2020 has been defined by decisions that have already been made. In general, the 2020 scenarios reflect that more time is needed for large land use and transportation infrastructure changes. Most of the reductions in the interim are anticipated to come from improving the efficiency of the region's transportation network. The targets were anticipated to result in 3 MMT CO_2e of reductions by 2020 and 15 MMT CO_2e of reductions by 2035. Based on these reductions, the passenger vehicle target in CARB's Scoping Plan (for AB 32) would be met.[2]

---

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

2 Ibid.

2017 Update to the SB 375 Targets. CARB is required to update the targets for the MPOs every eight years. In February 2018, CARB released updated targets and technical methodology. The updated targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan Update (for SB 32), while balancing the need for additional and more flexible revenue sources to incentivize positive planning and action toward sustainable communities. Like the 2010 targets, the updated SB 375 targets are in units of percent per capita reduction in GHG emissions from automobiles and light trucks relative to 2005; this excludes reductions anticipated from implementation of State technology and fuels strategies, and any potential future State strategies, such as statewide road user pricing. The new targets call for greater per capita GHG emissions reductions from SB 375 than the targets established in the 2008 Scoping Plan, which for 2035 translate into proposed targets that either match or exceed the emissions reduction levels in the MPO's currently adopted Sustainable Community Strategies (SCSs, discussed below) to achieve the SB 375 targets. As proposed, CARB's proposed targets would result in an additional reduction of over 8 MMT CO_2e in 2035 compared to the current targets. For the next round of SCS updates, CARB's updated targets for the SCAG region are an 8 percent per capita GHG reduction in 2020 from 2005 levels (unchanged from the 2010 target) and a 19 percent per capita GHG reduction in 2035 from 2005 levels (compared to the 2010 target of 13 percent). CARB anticipates adoption of the updated targets and methodology in 2018 and subsequent SCSs adopted afterwards would be subject to these new targets.[1]

Southern California Association of Governments' (SCAG) 2020–2045 RTP/SCS. SB 375 requires the MPOs to prepare a sustainable communities strategy in their regional transportation plan. For the SCAG region, on September 3, 2020, SCAG adopted Connect SoCal (2020–2045 RTP/SCS). [2] In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce VMT from automobiles and light-duty trucks and thereby reduce GHG emissions from these sources. For the SCAG region, the CARB has set the GHG reduction target at 19 percent below 2005 per capita emissions levels by 2035. The RTP/SCS lays out a strategy for the region to meet this target. Overall, the SCS is meant to provide growth strategies that will achieve the regional GHG emissions reduction targets. Land use strategies to achieve the region's targets include planning for new growth around high quality transit areas and livable corridors, and creating neighborhood mobility areas to integrate land use and transportation and plan for more active lifestyles.[3] However, the SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS; instead, it provides incentives to governments and developers for consistency.

California Building Code: Building Energy Efficiency Standards. Energy conservation standards for new residential and non-residential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 and most recently revised in 2016 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of

---

1 CARB. 2018. Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets. February. Website: https://ww3.arb.ca.gov/cc/sb375/staff_report_sb375_target_update_june_full_report.pdf (accessed October 2020).

2 Southern California Association of Governments (SCAG). 2020. *Connect SoCal 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy.* Website: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176 (accessed October 2, 2020).

3 Ibid.

building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The 2019 Building Energy Efficiency Standards became effective January 1, 2020.

The 2019 standards move towards cutting energy use in new homes by more than 50 percent and will require installation of solar photovoltaic systems for single-family homes and multi-family buildings of three stories and less. Four key areas the 2019 standards focus on are (1) smart residential photovoltaic systems; (2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); (3) residential and nonresidential ventilation requirements; and (4) nonresidential lighting requirements.[1] Under the 2019 standards, nonresidential buildings will be 30 percent more energy efficient compared to the 2016 standards while single-family homes will be 7 percent more energy efficient.[2] When accounting for the electricity generated by the solar photovoltaic system, single-family homes would use 53 percent less energy compared to homes built to the 2016 standards.[3]

Assembly Bill 1493. California vehicle GHG emissions standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and was anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the USEPA. In 2012, the USEPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 light-duty vehicles (see also the discussion on the update to the Corporate Average Fuel Economy standards under Federal Laws, above). In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of ZE vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025 new automobiles will emit 34 percent less GHG and 75 percent less smog-forming emissions.

Executive Order S-01-07. On January 18, 2007, the State set a new LCFS for transportation fuels sold in the State. EO S-01-07 sets a declining standard for GHG emissions measured in carbon dioxide equivalent gram per unit of fuel energy sold in California. The LCFS requires a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The standard applies to refiners, blenders, producers, and importers of

---

1 California Energy Commission (CEC) 2018a. *News Release: Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation*. Website: https://www.energy.ca.gov/news/2018-05/energy-commission-adopts-standards-requiring-solar-systems-new-homes-first#:~:text=First%20in%20Nation-,Energy%20Commission%20Adopts%20Standards%20Requiring%20Solar,New%20Homes%2C%20First%20in%20Nation&text=SACRAMENTO%20%2D%20Moving%20to%20cut%20energy,photovoltaic%20systems%20starting%20in%202020 (accessed October 2020).

2 CEC. 2018b. *Building Energy and Efficiency Standards Frequently Asked Questions*. Website: https://ww2.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_StandardsFAQ.pdf (accessed October 2020).

3 Ibid.

transportation fuels and would use market-based mechanisms to allow these providers to choose how they reduce emissions during the "fuel cycle" using the most economically feasible methods.

Senate Bills 1078, 107, X1-2, and Executive Order S-14-08. A major component of California's Renewable Energy Program is the renewables portfolio standard (RPS) established under SBs 1078 (Sher) and 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. EO S-14-08, signed in November 2008, expanded the State's renewable energy standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects, because electricity production from renewable sources is generally considered carbon neutral.

Senate Bill 350. SB 350 (de Leon) was signed into law September 2015 and established tiered increases to the RPS— 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

Executive Order B-16-2012. On March 23, 2012, the State identified that CARB, the CEC, the Public Utilities Commission, and other relevant agencies worked with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to accommodate ZE vehicles in major metropolitan areas, including infrastructure to support them (e.g., electric vehicle charging stations). The executive order also directed the number of ZE vehicles in California's State vehicle fleet to increase through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are ZE by 2015 and at least 25 percent by 2020. The executive order also establishes a target for the transportation sector of reducing GHG emissions 80 percent below 1990 levels.

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

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

The California Solid Waste Reuse and Recycling Access Act (AB 1327, Public Resources Code Section 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection

and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

Section 5.408 of the CALGreen Code also requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

In October of 2014, Governor Brown signed AB 1826 requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also required that on and after January 1, 2016, local jurisdictions across the State implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.

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

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

4.7.5.3 Regional Regulations

The City is part of the South Coast Air Basin (SCAB) and is under the jurisdiction of SCAG and SCAQMD. The City of Cypress is a member city of the SCAG. SCAG's 2020—2045 RTP/SCS, adopted September 3, 2020, is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. A GHG consistency analysis was conducted to determine whether or not the proposed project would be consistent with the RTP/SCS.

4.7.5.4 Local Regulations

The City of Cypress does not currently have an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

4.7.6 Thresholds of Significance

The thresholds for GHG emissions impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines* and the City's *Initial Study/Environmental Checklist*. The proposed project may be deemed to have a significant impact with respect to GHG emissions if it would:

Threshold 4.7.1: **Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

Threshold 4.7.2: **Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

4.7.6.1 Regional Emissions Thresholds

The SCAQMD has adopted a significance threshold of 10,000 MT CO_2e per year (MT CO_2e/yr) for permitted (stationary) sources of GHG emissions for which SCAQMD is the designated lead agency. To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, SCAQMD has convened a GHG CEQA Significance Threshold Working Group (Working Group). Based on the last Working Group meeting held in September 2010 (Meeting No. 15), SCAQMD proposed to adopt a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency:

- **Tier 1. Exemptions:** If a project is exempt from CEQA, project-level and cumulative GHG emissions are less than significant.

- **Tier 2. Consistency with a locally adopted GHG Reduction Plan:** If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (i.e., city or county), project-level and cumulative GHG emissions are less than significant.

- **Tier 3. Numerical Screening Threshold:** If GHG emissions are less than the numerical screening-level threshold, project-level and cumulative GHG emissions are less than significant.

  For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, SCAQMD requires an assessment of GHG emissions. SCAQMD, under Option 1, is proposing a "bright-line" screening-level threshold of 3,000 MT CO_2e/yr for all land use types or, under Option 2, the following land-use-specific thresholds: 1,400 MT CO_2e for commercial projects, 3,500 MT CO_2e for residential projects, or 3,000 MT CO_2e for mixed-use projects. This bright-line threshold is based on a review of the Governor's Office of Planning and Research database of CEQA projects. Based on their review of 711 CEQA projects, 90 percent of CEQA projects would exceed the bright-line thresholds identified above. Therefore, projects that do not exceed the bright-line threshold would have a nominal and therefore less than cumulatively considerable impact on GHG emissions.

- **Tier 4. Performance Standards:** If emissions exceed the numerical screening threshold, a more detailed review of the project's GHG emissions is warranted. SCAQMD has proposed an efficiency target for projects that exceed the bright-line threshold. The current recommended

approach is per capita efficiency targets. SCAQMD is not recommending use of a percent emissions reduction target. Instead, SCAQMD proposes a 2020 efficiency target of 4.8 MT CO_2e per year per service population (MT CO_2e/yr/SP) for project-level analyses and 6.6 MT CO_2e/yr/SP for plan-level projects (e.g., program-level projects such as general plans). The GHG efficiency metric divides annualized GHG emissions by the service population, which is the sum of residents and employees, per the following equation:

Rate of Emission: GHG Emissions (MT CO_2e/yr) ÷ Service Population

The efficiency evaluation consists of comparing the project's efficiency metric to efficiency targets. Efficiency targets represent the maximum quantity of emissions each resident and employee in the State of California could emit in various years based on emissions levels necessary to achieve the statewide GHG emissions reduction goals. A project that results in a lower rate of emissions would be more efficient than a project with a higher rate of emissions, based on the same service population. The metric considers GHG reduction measures integrated into a project's design and operation (or through mitigation). The per capita efficiency targets are based on the AB 32 GHG reduction target and 2020 GHG emissions inventory prepared for the CARB's 2008 Scoping Plan.

For the purpose of this analysis, the proposed project will first be compared to the SCAQMD interim screening level Tier 3 Numerical Screening Threshold of 3,500 MT CO_2e/yr for residential development such as the proposed project was used. If it is determined that the proposed project is estimated to exceed this screening threshold, it will then be compared to the SCAQMD-recommended efficiency-based threshold of 4.8 MT CO_2e/yr/SP in 2020, and 4.2 MT CO_2e/yr/SP in 2023.

The project is also evaluated for compliance with SCAG's 2020–2045 RTP/SCS, which establishes an overall GHG target for the project region consistent with the post-2020 GHG reduction goals of SB 32.

4.7.7 Project Impacts

Threshold 4.7.1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. During construction of the proposed project, GHGs would be emitted through the operation of construction equipment and from worker and vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

Construction activities produce combustion GHG emissions from various sources (utility engines, tenant improvements, and motor vehicles transporting the construction crew). The tentative project construction schedule for the proposed project is based on an anticipated 27 month construction schedule. Construction of the proposed project would require approximately 33,030 cubic yards (cy)

of cut and 40,155 cy of fill, resulting in a net import of approximately 7,125 cy of material. Grading and building activities would involve the use of standard earthmoving equipment such as loaders, bulldozers, cranes, and other related equipment.

Table 4.7.B presents the annual carbon dioxide equivalent (CO_2e) emissions for each of the planned construction phases based on the results from CalEEMod.

Table 4.7.B: Proposed Project Construction GHG Emissions

Construction Phase		Total Regional Pollutant Emissions (MT/yr)			
		CO_2	CH_4	N_2O	CO_2e
2021	Grading	113.3	<0.1	0.0	113.9
	Trenching	55.6	<0.1	0.0	56.1
2022	Trenching	16.3	<0.1	0.0	16.5
	Building Construction	528.0	<0.1	0.0	530.3
	Architectural Coating	73.2	<0.1	0.0	73.3
	Paving	26.3	<0.1	0.0	26.5
2023	Building Construction	542.7	<0.1	0.0	545.1
	Architectural Coating	75.2	<0.1	0.0	75.2
Total Construction Emissions		**1,430.7**	**<0.1**	**0.0**	**1,437.0**
Amortized over 30 years		**47.7**	**<0.1**	**0.0**	**47.9**

Source: Compiled by LSA (November 2020).
CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
GHG = greenhouse gas
MT/yr = metric tons per year
N_2O = nitrous oxide

Long-term operation of the proposed project would generate GHG emissions from area and mobile sources and indirect emissions from stationary sources associated with energy consumption. The majority of energy consumption (and associated generation of GHG emissions) would occur during the project's operation (as opposed to during its construction). Mobile-source emissions of GHGs would include project-generated vehicle trips associated with the vehicle trips. Area-source emissions would be associated with activities including landscaping and maintenance of the proposed project, natural gas for heating, and other sources. Increases in stationary-source emissions would also occur at off-site utility providers as a result of demand for electricity, natural gas, and water by the proposed project.

Based on the trip generation provided in the Traffic Operations Assessment (2020) prepared for the project, the proposed project would generate 988 average daily trips (ADTs). The CalEEMod modeling data utilize the appliance data that are compliant with SCAQMD Rule 445 and assume there would be no woodstoves and any fireplaces would be non-wood burning gas powered. Similar to the air quality emissions modeling, the GHG modeling reflects compliance with the 2019 California Green Building Standard Code, including on-site photovoltaic electricity generation to meet a portion of the project's power needs, energy efficient appliances, and water-efficient faucets.

The GHG emissions estimates presented in Table 4.7.C show the emissions associated with the level of development envisioned by the proposed project at project opening. Area sources include consumer products and landscaping. Energy sources include natural gas consumption for heating and cooking. As shown in Table 4.7.C, the proposed project is estimated to result in GHG emissions of 1,513.3 MT of CO_2e/yr.

Table 4.7.C: Operational Greenhouse Gas Emissions

Source	Pollutant Emissions (MT/yr)					
	Bio- CO_2	NBio-CO_2	Total CO_2	CH_4	N_2O	CO_2e
Project Construction Emissions						
Construction emissions amortized over 30 years	0.0	47.7	47.7	<0.1	0.0	47.9
Project Operational Emissions						
Area Sources	0.0	31.5	31.5	<0.1	<0.1	31.7
Energy Sources	0.0	167.2	167.2	<0.1	<0.1	168.1
Mobile Sources	0.0	1,214.6	1,214.6	<0.1	0.0	1,216.0
Waste Sources	3.2	0.0	3.2	<0.1	0.0	7.8
Water Usage	2.2	34.1	36.3	<0.1	<0.1	43.8
Total Project Emissions	**5.4**	**1,495.0**	**1,500.4**	**<0.1**	**<0.1**	**1,513.3**
SCAQMD Tier 3 GHG Numerical Screening Threshold						**3,500.0**
Exceedance?						**No**

Source: Compiled by LSA (October 2020).
Note: Numbers in table may not appear to add up correctly due to rounding of all numbers to one significant digits.
Bio-CO_2 = biologically generated CO_2
CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
GHG = greenhouse gas
MT/yr = metric tons per year
N_2O = nitrous oxide
NBio-CO_2 = Non-biologically generated CO_2
SCAQMD = South Coast Air Quality Management District

The GHG emissions estimates presented in Table 4.7.C show that the proposed project would generate 1,513.3 MT CO_2e/yr. Therefore, the proposed project's total GHG emissions would not exceed the threshold of 3,500 MT CO_2e/yr. Thus, project-related emissions would have a less than significant impact related to generation of GHG emissions.

Threshold 4.7.2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. Applicable plans adopted for the purpose of reducing GHG emissions include CARB's Scoping Plan and SCAG's 2020–2045 RTP/SCS. A consistency analysis with these plans for the proposed project is presented below.

CARB Scoping Plan. The CARB Scoping Plan is applicable to State agencies, but is not directly applicable to cities/counties and individual projects (i.e., the Scoping Plan does not require the City to adopt policies, programs, or regulations to reduce GHG emissions). However, new regulations adopted by the State agencies outlined in the Scoping Plan result in GHG emissions reductions at the local level. As a result, local jurisdictions benefit from reductions in transportation emissions rates, increases in water efficiency in the building and landscape codes, and other statewide actions that would affect a local jurisdiction's emissions inventory from the top down. Statewide strategies to reduce GHG emissions include the LCFS and changes in the corporate average fuel economy

standards (e.g., Pavley I and Pavley California Advanced Clean Cars program). Although measures in the Scoping Plan apply to State agencies and not the proposed project, the project's GHG emissions would be reduced by compliance with statewide measures that have been adopted since AB 32 and SB 32 were adopted. Therefore, the proposed project was analyzed for consistency with the goals of AB 32, the AB 32 Scoping Plan, EO B-30-15, SB 32, and AB 197.

AB 32 is aimed at reducing GHG emissions to 1990 levels by 2020. AB 32 required the CARB to prepare a Scoping Plan outlining the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change. The AB 32 Scoping Plan has a range of GHG reduction actions, which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 implementation fee to fund the program.

EO B-30-15 added the immediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan,[1] to reflect the 2030 target set by EO B-30-15 and codified by SB 32. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in EO B-30-15. SB 32 builds on AB 32 and keeps the State on the path toward achieving its 2050 objective of reducing emissions to 80 percent below 1990 levels. The companion bill to SB 32, AB 197, provides additional direction to the CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 intended to provide easier public access to air emissions data collected by CARB was posted in December 2016.

As identified above, the AB 32 Scoping Plan contains GHG reduction measures that work towards reducing GHG emissions, consistent with the targets set by AB 32, EO B-30-15 and codified by SB 32 and AB 197. The measures applicable to the proposed project include energy efficiency measures, water conservation and efficiency measures, and transportation and motor vehicle measures, as discussed below.

Energy efficient measures are intended to maximize energy efficiency building and appliance standards, pursue additional efficiency efforts including new technologies and new policy and implementation mechanisms, and pursue comparable investment in energy efficiency from all retail providers of electricity in California. In addition, these measures are designed to expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. As identified above, the proposed project would comply with the latest Title 24 standards of the California Code of Regulations, regarding energy conservation and green building standards. Therefore, the proposed project would comply with applicable energy measures.

Water conservation and efficiency measures are intended to continue efficiency programs and use cleaner energy sources to move and treat water. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. As noted above, the project would be required to comply with the latest Title 24 standards of the California Code of Regulations, which includes a

[1] CARB. 2017. *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target.* Website: https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf (accessed October 2020).

variety of different measures, including reduction of wastewater and water use. Therefore, the proposed project would not conflict with any of the water conservation and efficiency measures.

The goal of transportation and motor vehicle measures is to develop regional GHG emissions reduction targets for passenger vehicles. Specific regional emissions targets for transportation emissions would not directly apply to the proposed project. However, vehicles traveling to the project site would comply with the Pavley II (LEV III) Advanced Clean Cars Program. The second phase of Pavley standards will reduce GHG emissions from new cars by 34 percent from 2016 levels by 2025. Therefore, the proposed project would not conflict with the identified transportation and motor vehicle measures.

The proposed project would comply with existing State regulations adopted to achieve the overall GHG emissions reduction goals identified in AB 32, the AB 32 Scoping Plan, EO B-30-15, SB 32, and AB 197 and would be consistent with applicable State plans and programs designed to reduce GHG emissions. Therefore, impacts are considered less than significant.

SCAG's Regional Transportation Plan/Sustainable Communities Strategy. SCAG's 2020–2045 RTP/SCS was adopted September 3, 2020. SCAG's RTP/SCS identifies that land use strategies that focus on new housing and job growth in areas served by high quality transit and other opportunity areas would be consistent with a land use development pattern that supports and complements the proposed transportation network. The core vision in the 2020–2045 RTP/SCS is to better manage the existing transportation system through design management strategies, integrate land use decisions and technological advancements, create complete streets that are safe to all roadway users, preserve the transportation system, and expand transit and foster development in transit oriented communities. The 2020–2045 RTP/SCS contains transportation projects to help more efficiently distribute population, housing, and employment growth, as well as a forecast development that is generally consistent with regional-level general plan data. The forecasted development pattern, when integrated with the financially constrained transportation investments identified in the 2020–2045 RTP/SCS, would reach the regional target of reducing GHG emissions from autos and light-duty trucks by 19 percent by 2035 (compared to 2005 levels). The 2020–2045 RTP/SCS does not require that local general plans, specific plans, or zoning be consistent with the 2020–2045 RTP/SCS, but provides incentives for consistency for governments and developers.

The proposed project would develop housing in close proximity to existing and future commercial and retail uses. Furthermore, as described in Section 3.4, Project Characteristics, in Chapter 3.0, Project Description, of this Draft EIR, the proposed project is envisioned as a higher density housing development adjacent to commercial and employment opportunities to encourage pedestrian access and provide a consumer base for commercial uses and to help meet the existing and future housing needs of all Cypress residents. The proposed project would also provide pedestrian connections to adjacent parcels to provide connectivity and convenient access to the nearby existing and future commercial and retail uses. In addition, the proposed development would be located within a transit-friendly community. Overall, the nearby transit facilities and proposed improvements to the pedestrian network would support public transit use and walking and bicycling. Furthermore, as discussed under Threshold 4.10.1 in Section 4.10, Land Use and Planning, the proposed project would not result in physical divisions in any established community.

Implementing SCAG's RTP/SCS will greatly reduce the regional GHG emissions from transportation, helping to achieve statewide emissions reduction targets. As stated above, the proposed project would in no way conflict with the stated goals of the RTP/SCS; therefore, the proposed project would not interfere with SCAG's ability to achieve the region's GHG reduction target of 19 percent below 2005 per capita emissions levels by 2035, and it can be assumed that regional mobile emissions will decrease in line with the goals of the RTP/SCS. Furthermore, the proposed project is not regionally significant per *State CEQA Guidelines* Section 15206 and as such, it would not conflict with the SCAG RTP/SCS targets, since those targets were established and are applicable on a regional level.

Based on the nature of the proposed project, it is anticipated that implementation of the proposed project would not interfere with SCAG's ability to implement the regional strategies outlined in the RTP/SCS. Therefore, the proposed project would not conflict with an adopted plan, policy, or regulation pertaining to GHG emission, and impacts are considered less than significant.

4.7.8 Level of Significance Prior to Mitigation

The proposed project would result in less than significant impacts related to GHG emissions.

4.7.9 Cumulative Impacts

Cumulative impacts are the collective impacts of one or more past, present, or future projects, that when combined, result in adverse changes to the environment. Climate change is a global environmental problem in which: (a) any given development project contributes only a small portion of any net increase in GHGs, and (b) global growth is continuing to contribute large amounts of GHGs across the world. Land use projects may contribute to the phenomenon of global climate change in ways that would be experienced worldwide, and with some specific effects felt in California. However, no scientific study has established a direct causal link between individual land use project impacts and global warming.

The analysis of impacts related to GHG emissions is inherently cumulative. The proposed project would have no conflict with applicable statewide and regional climate action measures. In addition, as discussed above, the project's operational-related GHG emissions would not exceed the SCAQMD's numeric threshold. Therefore, GHG emissions impacts associated with the proposed project would be less than significant, and therefore the cumulative impact would also be less than significant.

This page intentionally left blank

4.8 HAZARDS AND HAZARDOUS MATERIALS

This section describes known and potential hazards and hazardous materials conditions at the Cypress Town Center Project (proposed project) site and in the surrounding area, relates potentially significant adverse public health impacts anticipated as a result of the proposed project, and addresses the proposed impacts with consideration of local, State, and federal regulations and policies and provides recommended measures pursuant to the California Environmental Quality Act (CEQA).

The hazards and hazardous materials analysis in this section is based on the project-specific technical analysis contained in the *Phase I Environmental Site Assessment Los Alamitos Race Course 7 Acres (Portion of Parking Lot), California* (Phase I ESA), prepared by Partner Engineering and Science, Inc. (Partner) in July 2019. The findings of this report are summarized, and the complete report is contained in Appendix F.

4.8.1 Scoping Process

The City of Cypress (City) received four comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this Draft Environmental Impact Report (EIR). No comment letter(s) included comments related to hazards and hazardous materials.

4.8.2 Methodology

To assess the impacts of the proposed project with respect to hazardous materials and wastes, Partner performed a Phase I ESA of the project site, more specifically the portions of Assessor's Parcel Numbers (APNs) 241-091-36 and 241-091-40. Partner performed the Phase I ESA in general accordance with the American Society for Testing Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E1527-13) in an effort to identify, to the extent feasible, the presence of recognized environmental conditions (RECs) with respect to the project site as defined in ASTM E1527-13. ASTM defines an REC in the E1527-13 standard as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions."

The Phase I ESA used the following methodology:

4.8.2.1 Background Research and Data Review

Partner performed a records review for the project site and surrounding properties in an effort to identify potential RECs in connection with the project site and assess potential concerns associated with the migration of hazardous substances to the project site from off-site sources. The records review included reasonably ascertainable historical data, which can be helpful in identifying the past uses of the project site and surrounding areas, as they may relate to the environmental condition of the project site.

4.8.2.2 Site Reconnaissance

On July 3, 2019, Partner visually assessed the project site for potential RECs, including, but not limited to, potential underground storage tanks, aboveground storage tanks, polychlorinated biphenyl-containing equipment, hazardous materials storage or handling areas, containerized or bulk wastes, and visual indications of impacted soil. A facilities manager accompanied Partner during the field reconnaissance activities and provided information pertaining to the current operations and maintenance of the project site.

4.8.3 Existing Environmental Setting

The project site mostly consists of an asphalt concrete-paved parking lot; however, some landscaping is present along the northern edge of the project site adjacent to the Los Alamitos Race Course parking lot. The site has a generally flat topography with a gentle fall of about two to four feet to the south-southwest. Surface drainage is to the south-southwest.

According to aerial photographs, topographic maps, and a City of Cypress directory obtained from Environmental Data Resources, Inc. (EDR) (provided in Appendix F), the project site was undeveloped from at least 1896 through 1925. The project site appears to have been used for agricultural purposes in 1928 and the site was vacant from at least 1938 through 1947. Railroad tracks are visible in aerial imagery and topographic maps along the northern perimeter of the project site from 1935 to 1981. The project site was improved with a parking lot before 1963, and it has been generally used for that purpose since that time.

4.8.4 Regulatory Setting

Hazards and hazardous materials are subject to numerous federal, State, and local laws and regulations intended to protect health, safety, and the environment. The U.S. Environmental Protection Agency (USEPA), California EPA (Cal/EPA), the California Department of Toxic Substance Control (DTSC), the Santa Ana Regional Water Quality Control Board (RWQCB), and the County of Orange are the primary agencies responsible for enforcing these regulations. Local regulatory agencies enforce many federal and State regulations through the Certified Unified Program Agency (CUPA) program.

4.8.4.1 Federal Regulations

Major federal laws and issue areas include the following statutes and regulations:

Occupational Safety and Health Administration (OSHA), Title 29 CFR. OSHA is the federal agency responsible for ensuring worker safety. These regulations provide standards for safe workplaces and work practices, including those relating to hazardous materials handling.

EPA, Title 40 CFR 700–799 (Toxic Substances Control Act). The Toxic Substances Control Act regulates manufacturing, inventory, and disposition of industrial chemicals, including hazardous materials. It addresses the production, importation, use, and disposal of specific chemicals including polychlorinated biphenyls (PCB), asbestos-containing materials (ACM), and lead-based paint.

United States Department of Transportation (USDOT) Regulations, Title 49 CFR. U.S. DOT, in conjunction with the U.S. EPA, is responsible for enforcement and implementation of federal laws and regulations pertaining to safe storage and transportation of hazardous materials. The Code of Federal Regulations (CFR) 49, 171–180, regulates the transportation of hazardous materials, types of material defined as hazardous, and the marking of vehicles transporting hazardous materials.

Federal Air Regulations, Part 77. The Federal Aviation Administration (FAA) is responsible for the review of construction activities that occur in the vicinity of airports. Its role in reviewing these activities is to ensure that new structures do not result in a hazard to navigation. The regulations in the Federal Air Regulations (14 CFR, Part 77) are designed to ensure that no obstructions in navigable air space are allowed to exist that would endanger the public. Federal Air Regulations Part 77 identifies the maximum height at which a structure would be considered an obstacle at any given point around an airport. The extent of the off-airport coverage that needs to be evaluated for tall structure impacts can extend miles from an airport facility. In addition, Federal Air Regulations Part 77 establishes standards for determining whether objects constructed near airports will be considered obstructions in navigable airspace, sets forth notice requirements of certain types of proposed construction or alterations, and provides for aeronautical studies to determine the potential impacts of a structure on the flight of aircraft through navigable airspace.

4.8.4.2 State Regulations

State Assembly Bill 2948. In response to the growing statewide concern of hazardous waste management, State Assembly Bill 2948 (Tanner 1986) enacted legislation authorizing local governments to develop comprehensive hazardous waste management plans. The intent of each plan is to assure that adequate treatment and disposal capacity is available to manage the hazardous wastes generated within its jurisdiction.

California Occupational Safety and Health Administration (Cal/OSHA) Regulations. Cal/OSHA is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA requires many entities to prepare injury and illness prevention plans and chemical hygiene plans, and provides specific regulations to limit exposure of construction workers to lead.

Cortese List Statute (California Government Code, §65962.5). This regulation requires the California Department of Toxic Substances Control to compile and maintain lists of potentially contaminated sites throughout the State, and includes the Hazardous Waste and Substances Sites List. The overall list is called the “Cortese” List.

Safe Drinking Water and Toxic Enforcement Act (Proposition 65, California Health and Safety Code, §25249.5 et seq.). The Safe Drinking Water and Toxic Enforcement Act is similar to the federal Safe Drinking Water Act and Clean Water Act in that it regulates the discharge of contaminants to groundwater.

4.8.4.3 Local Regulations

Certified Unified Program Agency. Senate Bill 1082 provides for the designation of a CUPA that would be responsible for the permitting process and collection of fees. The CUPA would be

responsible for implementing at the local level the Unified Program, which serves to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for the following environmental and emergency management programs:

- Hazardous Waste
- Hazardous Materials Business Plan
- California Accidental Release Prevention Program
- Underground Hazardous Materials Storage Tanks
- Aboveground Petroleum Storage Tanks / Spill Prevention Control & Countermeasure Plans
- Hazardous Waste Generator and On-Site Hazardous Waste Treatment (tiered permitting) Programs

In Orange County, the Environmental Health Division of the Orange County Health Care Agency is designated as the CUPA responsible for implementing the above-listed program elements. The laws and regulations that established these programs require that businesses that use or store certain quantities of hazardous materials submit a Hazardous Materials Business Emergency Plan (HMBEP) that describes the hazardous materials usage, storage, and disposal required by the CUPA.

As the CUPA, the Environmental Health Division of the Orange County Health Care Agency coordinates five programs regulating hazardous materials and hazardous wastes in Orange County, which include the following:

- **Orange County Health Agency – Environmental Health Division Hazardous Waste**
  - Underground Storage Tanks (UST)
  - Aboveground Storage Tanks (AST)
- **Orange County Fire Authority**
  - Hazardous Materials Disclosure (HMD)
  - Business Plan
  - California Accidental Release Program (CalARP)

4.8.5 Thresholds of Significance

The thresholds for hazards and hazardous materials impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines* and the City's *Initial Study/Environmental Checklist.* The proposed project may be deemed to have a significant impact with respect to hazards and hazardous materials if it would:

Threshold 4.8.1: **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

Threshold 4.8.2: **Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

Threshold 4.8.3: **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

Threshold 4.8.4: **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?**

Threshold 4.8.5: **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?**

Threshold 4.8.6: **Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

Threshold 4.8.7: **Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?**

4.8.6 Project Impacts

Threshold 4.8.1: **Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

Less Than Significant Impact.

Construction. Construction of the proposed project would temporarily increase the regional transport, use, and disposal of construction-related hazardous materials and petroleum products (e.g., diesel fuel, lubricants, paints and solvents, and cement products containing strong basic or acidic chemicals). These materials are commonly used at construction sites, and the construction activities would be required to comply with applicable State and federal regulations for proper transport, use, storage, and disposal of excess hazardous materials and hazardous construction waste. In addition, Regulatory Compliance Measures HYD-1 and HYD-2, provided in Section 4.9, Hydrology and Water Quality, of this Draft EIR, require compliance with the waste discharge permit requirements to avoid potential impacts to water quality due to spills or runoff from hazardous materials used during construction. Therefore, with adherence to the regulatory standards included in Regulatory Compliance Measures HYD-1 and HYD-2, impacts related to the routine transport, use, or disposal of hazardous materials during construction would be less than significant.

Operation. Residential uses included in the proposed project may include the use and disposal of typical cleaning products along with limited use of pesticide and herbicides for landscape maintenance. Vehicles accessing the homes on site would contain oil and gasoline, to power their

engines, which could have the potential to result in minor releases of such substances through drips or leaks from parking areas. The proposed project's uses are not anticipated to be associated with major hazardous materials and would not create unusually high quantities of hazardous waste.

The Orange County Fire Authority (OCFA) Hazardous Material Division and the Orange County Environmental Health Department both identify types and amounts of waste generated in Orange County and establish programs for managing waste. The OCFA maintains a Hazardous Material Management Plan, which assures that adequate treatment and disposal capacity is available to manage the hazardous waste generated within the County and address issues related to the disposal, handling, processing, storage, and treatment of local hazardous materials and waste products.

The proposed project would be reviewed by the OCFA for hazardous material use, safe handling, and storage of materials. Prior to the issuance of grading permits, conditions of approval would be applied to the proposed project by the OCFA to reduce hazardous material impacts and insure that any hazardous waste that is generated on site would be transported to an appropriate disposal facility by a licensed hauler in accordance with State and federal law. Therefore, due to the type and nature of the proposed project, its implementation would result in less than significant impacts related to the routine transport, use, or disposal of hazardous materials; no mitigation is required.

Threshold 4.8.2: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact. Because no significant hazards would be created by uses associated with the proposed project, the potential for the proposed project to 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 would be less than significant; no mitigation is required.

Threshold 4.8.3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. Grace Christian School is located approximately 0.75 mile northwest of the project site, and the Cottonwood Christian Center preschool facility is located approximately 0.5 mile west of the project site. The proposed project's uses would not pose a significant threat of hazardous emissions or significant handling of hazardous materials or substances. Therefore, impacts to schools would be less than significant; no mitigation is required.

Threshold 4.8.4: Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less Than Significant Impact. The government records database search, completed as part of the Phase I ESA, determined that the project site is not included on any of the queried databases of hazardous materials sites that could create a significant hazard to the public or the environment. The Phase I ESA included an analysis of surrounding properties within a 1.0-mile radius of the project site. The Phase I ESA identified several listings for off-site adjacent or nearby properties on databases potentially indicative of a contamination concern. However, the Phase I ESA concluded that these sites do not pose a potential hazard to the project site, and no further investigation of the project site is required. Therefore, impacts related to hazardous materials sites would remain less than significant; no mitigation is required.

Threshold 4.8.5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

Less Than Significant Impact. The project site is located approximately 0.5 mile north of the Joint Forces Training Base (JFTB) Los Alamitos. The facilities at JFTB Los Alamitos include two runways and associated taxiways, ramp space, and hangars. According to the Orange County Airport Land Use Commission's 2016 *Airport Environs Land Use Plan* (AELUP) *for Joint Forces Training Base Los Alamitos*, the project site is located in the Federal Aviation Administration's (FAA) Part 77 Notification Area (Exhibit D1) and the AELUP height restriction zone for JFTB Los Alamitos (Exhibit D2).[1] Height limitations are imposed on projects within a height restriction zone so that structures or trees (1) do not obstruct the airspace required for takeoff, flight, or landing of aircraft at an airport, or (2) are not otherwise hazardous to the landing or taking off of aircraft.

Implementation of the proposed project would not result in a safety hazard for people working in the project area because the project would comply with all appropriate FAA standards and requirements, including Regulatory Compliance Measure HAZ-1, which requires that the FAA be notified of any proposed structure(s) that would penetrate the 100 to 1 imaginary surface that surrounds the runway at JFTB Los Alamitos. The FAA would then be responsible for reviewing the height of the proposed structures and determining whether they pose a potential aviation hazard. With adherence to the regulatory standards provided in Regulatory Compliance Measure HAZ-1, implementation of the proposed project would result in less than significant impacts related to safety hazards for people working in the project area; no mitigation is required.

Threshold 4.8.6: Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

[1] Orange County Airport Land Use Commission. 2016. *Airport Environs Land Use Plan for Joint Forces Training Base Los Alamitos*. Website: http://www.ocair.com/commissions/aluc/docs/JFTB-AELUP2016 ProposedFINAL.pdf (accessed November 16, 2020).

No Impact. The project site is not located along an emergency evacuation route.[1] Therefore, implementation of the proposed project would not interfere with the adopted emergency response plan and/or the emergency evacuation plan. No impact would occur; no mitigation is required.

Threshold 4.8.7: **Would the project 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 located within a fully urbanized area. There are no wildlands adjacent or in the vicinity of the project site, and the project site is not designated as a Fire Hazard Severity Zone on the Statewide California Department of Forestry and Fire Protection (CAL FIRE) Map.[2] Therefore, there would be no risk of loss, injury, or death involving wildland fires. No impact would occur, and no mitigation is required.

4.8.7 Level of Significance Prior to Mitigation

Impacts resulting from implementation of the proposed project would be less than significant prior to mitigation; no mitigation is required related to hazardous materials and wastes.

4.8.8 Regulatory Compliance Measures and Mitigation Measures

4.8.8.1 Regulatory Compliance Measures

Regulatory Compliance Measure HAZ-1 **Federal Aviation Regulation Title 14 Part 77.** The Applicant/Developer shall notify the Federal Aviation Administration (FAA) of any proposed structure(s) that would penetrate the 100 to 1 imaginary surface that surrounds the runway at Joint Forces Training Base Los Alamitos at least 45 days prior to beginning construction.

4.8.9 Mitigation Measures

No mitigation measures are required.

4.8.10 Level of Significance after Mitigation

Impacts resulting from implementation of the proposed project would be less than significant prior to mitigation; no mitigation is required related to hazardous materials and wastes.

4.8.11 Cumulative Impacts

The purpose of this section is to evaluate any additional incremental impact that the proposed project is likely to cause over and above the combined impacts of recently approved and proposed

---

1 City of Cypress General Plan, Safety Element, Emergency Evacuation Routes map (Exhibit SAF-5). Website: https://www.cypressca.org/government/departments/community-development/planning-division/city-plans (accessed November 16, 2020).

2 California Department of Forestry and Fire Protection (CAL FIRE). 2007. Draft Fire Hazard Severity Zones in LRA. Website: https://osfm.fire.ca.gov/media/6737/fhszs_map30.pdf (accessed November 16, 2020).

projects in the City. The project vicinity is largely urbanized with residential, commercial, and industrial uses. As the area continues to develop, implementation of the proposed project in conjunction with the 13 related projects identified in Table 4.A, Summary of Related Projects, in Chapter 4.0, Existing Setting, Environmental Analysis, Impacts, and Mitigation Measures, could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; therefore, cumulative development could result in potentially significant impacts regarding hazardous materials.

For the proposed project, impacts due to hazardous materials would be less than significant. Although some of the cumulative projects listed also have potential impacts associated with hazardous materials, the environmental concerns associated with hazardous materials are site specific. Each project is required to address any issues related to hazardous material or wastes. Federal, state, and local regulations require mitigation to protect against site contamination by hazardous materials. Therefore, there would be no cumulative hazardous materials impacts.

This page intentionally left blank

4.9 HYDROLOGY AND WATER QUALITY

This section evaluates the potential impacts to hydrology and water quality conditions from implementation of the Cypress Town Center Project (proposed project). The analysis in this section is based in part on the *Preliminary Water Quality Management Plan* (On-Site Preliminary Water Quality Management Plan) (Fuscoe Engineering, Inc. 2020b) (Appendix G), the *Vessels Circle Offsite Improvements Preliminary Water Quality Management Plan* (Off-Site Preliminary Water Quality Management Plan) (Fuscoe Engineering, Inc. 2020c) (Appendix H), the *Preliminary Hydrology Analysis* (Fuscoe Engineering, Inc. 2020a) (Appendix G), and the *Geotechnical Evaluation for Proposed Multi-Family Residential Development South of Vessels Circle and West or Walker Street, City of Cypress, Orange County, California* (Geotechnical Assessment) (GeoTek, Inc. [GeoTek], August 12, 2019) (Appendix E) that were prepared for the proposed project and are included in this Draft Environmental Impact Report (EIR).

4.9.1 Scoping Process

The City of Cypress (City) received four comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this Draft EIR. No comment letter(s) included comments related to hydrology and water quality.

4.9.2 Existing Environmental Setting

4.9.2.1 Watersheds

The project site is located within the Coyote Creek Subwatershed of the larger San Gabriel River Watershed. The San Gabriel River Watershed covers 689 square miles (sq mi), primarily in eastern Los Angeles County with a smaller portion in northwestern Orange County. The Coyote Creek Subwatershed drains approximately 185 sq mi to its confluence with the San Gabriel River, 85.5 sq mi of which lie in north Orange County, with the remainder in Los Angeles County. The main tributary of the Coyote Creek Watershed is Coyote Creek, which flows from Riverside County and empties into the San Gabriel River just above its tidal prism. The San Gabriel River flows into the Pacific Ocean west of Seal Beach. [1,2]

The project site is located within the jurisdictional boundary of the Santa Ana Regional Water Quality Control Board (RWQCB). For planning purposes, the Santa Ana RWQCB uses a watershed classification system that divides surface waters into hydrologic units (HUs), hydrologic areas (HA),

---

1 Los Angeles Regional Water Quality Control Board (RWQCB). 2018. Water Quality and Watersheds: San Gabriel River Watershed. Website: https://www.waterboards.ca.gov/rwqcb4/water_issues/programs/regional_program/Water_Quality_and_Watersheds/san_gabriel_river_watershed/summary.shtml (accessed November 12, 2020).

2 John L. Hunter and Associates, Inc. 2014. Lower San Gabriel River Watershed Management Program. Website: https://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/watershed_management/san_gabriel/lower_sangabriel/LowerSGR_WMP1.pdf (accessed November 12, 2020).

and hydrologic subareas (HSA). As designated by the RWQCB, the project site is located within the Los Angeles-San Gabriel River HU, the Anaheim HA Split, and the Anaheim HSA Split.[1]

4.9.2.2 Drainage

In the existing condition, stormwater runoff flows in a southwesterly direction across the adjacent property to the southwest, where it is gathered in ribbon gutters and conveyed towards Katella Avenue. Stormwater runoff collected on Katella Avenue then drains to the Los Alamitos Channel, then to San Gabriel River Estuary and San Pedro Bay, and is ultimately discharged to the Pacific Ocean.

4.9.2.3 Surface Water Quality

As discussed in greater detail in Section 4.9.3, below, Coyote Creek is impaired for copper, indicator bacteria, iron, malathion, pH, and toxicity. San Gabriel River Estuary is impaired for nickel, dissolved oxygen, copper, dioxin, and indicator bacteria, and San Pedro Bay is impaired for chlordane, polychlorinated biphenyls (PCBs), dichlorodiphenyltrichloroethane (DDT), and toxicity.

4.9.2.4 Groundwater

According to the California Department of Water Resources (DWR), the project site is located within the Coastal Plain of the Orange County Groundwater Basin, which underlies a coastal alluvial plain in the northwestern portion of Orange County (County). The Coastal Plain of Orange County groundwater basin underlies a coastal alluvial plain in northwestern Orange County. The basin is bound on the northwest and the north by the Los Angeles-Orange County line, on the northeast by the Whittier Fault Zone and consolidated rocks of the Puente Hills and Chino Hills, on the east by consolidated rocks of the Santa Ana Mountains, on the south by consolidated rocks of the Laguna Hills and San Joaquin Hills, and on the southwest by the Pacific Ocean. Groundwater recharge to the basin is derived from percolation of Santa Ana River flow, infiltration of precipitation, and injection into wells.[2]

For management purposes, groundwater basins are designated in the Santa Ana RWQCB's Water Quality Control Plan (Basin Plan) as Groundwater Management Zones. The project site is within the Orange County Groundwater Management Zone in the Lower Santa Ana River Basin. The Orange County Groundwater Management Zone is bounded to the north by the Chino Hills and Santa Ana Mountains, to the east by State Route 55 (SR-55) and the Irvine Groundwater Management Zone, to the south by the Pacific Ocean, and to the west by a low topographic divide approximated by the Orange County/Los Angeles County line.[3]

According to the Geotechnical Assessment, groundwater at the project site is shallow, ranging from approximately 5 to 6 feet (ft) below ground surface (bgs). This is consistent with groundwater levels

---

1 Santa Ana Regional Water Quality Control Board (RWQCB). 1995. Water Quality Control Plan (Basin Plan) for the Santa Ana River Basin (updated June 2019).

2 California Department of Water Resources (DWR). 2004. California's Groundwater Bulletin 118. Coastal Plains of Orange County Groundwater Basin.

3 Santa Ana Regional Water Quality Control Board (RWQCB). 1995. Water Quality Control Plan (Basin Plan) for the Santa Ana River Basin (updated June 2019).

conducted in the monitoring well installed on the northwestern edge of the project site, which indicated that groundwater is in the range of 5 to 6 ft bgs.

4.9.2.5 Groundwater Quality

Groundwater in the Coastal Plain of the Orange County Groundwater Basin is primarily sodium-calcium bicarbonate based. In general, total dissolved solids (TDS) content in groundwater ranges from 232 milligrams per liter (mg/L) to 661 mg/L, with an average of 475 mg/L. Groundwater impairments include salinity (from seawater intrusion), colored water (from natural organic materials), high nitrates, and methyl tertiary butyl ether (MTBE).[1]

4.9.2.6 Flooding

According to the Federal Emergency Management Agency (FEMA) Federal Insurance Rate Map (FIRM) No. 06059C0116J (December 3, 2009), the project site is located within Zone X, which comprises areas of 0.2 percent annual chance flood (500-year flood). This means that there is a very low likelihood of flooding within the project site.

According to the Safety Element of the City of Cypress (City) General Plan, the project site is located within the inundation zone of the Prado Dam and the Carbon Canyon Dam. There are no open bodies of water in the vicinity of the project site and the project is therefore not located within an inundation zone of a seiche. The project site is located more than 5 miles to the northeast of the Pacific Ocean and is not located within the tsunami inundation zone. The levee inundation zone of Coyote Creek/Carbon Creek is located to the west of the project site; however, the project site is not located within this inundation area.

4.9.3 Regulatory Setting

4.9.3.1 Federal Regulations

Clean Water Act. In 1972, the Federal Water Pollution Control Act (now referred to as the Clean Water Act [CWA]) was amended to require that the discharge of pollutants into waters of the United States from any point source be effectively prohibited unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. In 1987, the CWA was again amended to require that the United States Environmental Protection Agency (USEPA) establish regulations for the permitting of stormwater discharges (as a point source) by municipal and industrial facilities and construction activities under the NPDES permit program. The regulations require that Municipal Separate Storm Sewer System (MS4) discharges to surface waters be regulated by an NPDES permit.

The CWA requires states to adopt water quality standards for water bodies and have those standards approved by the USEPA. Water quality standards consist of designated beneficial uses for a particular water body (e.g., wildlife habitat, agricultural supply, fishing), along with water quality criteria necessary to support those uses. Water quality criteria are set concentrations or levels of constituents (e.g., lead, suspended sediment, and fecal coliform bacteria) or narrative statements

[1] California Department of Water Resources (DWR). 2004. California's Groundwater Bulletin 118. Coastal Plains of Orange County Groundwater Basin.

that represent the quality of water that support a particular use. Because California had not established a complete list of acceptable water quality criteria for toxic pollutants, the USEPA Region 9 (Pacific Southwest) established numeric water quality criteria for toxic constituents in the form of the California Toxics Rule (CTR).

When designated beneficial uses of a particular water body are being compromised by water quality, Section 303(d) of the CWA requires identifying and listing that water body as impaired. Once a water body has been deemed impaired, a Total Maximum Daily Load (TMDL) must be developed for each impairing water quality constituent. A TMDL is an estimate of the total load of pollutants from point, nonpoint, and natural sources that a water body may receive without exceeding applicable water quality standards (often with a "factor of safety" included, which limits the total load of pollutants to a level well below that which could cause the standard to be exceeded). Once established, the TMDL is allocated among current and future dischargers into the water body.

Direct discharges of pollutants into waters of the United States are not allowed except in accordance with the NPDES program established in Section 402 of the CWA.

Clean Water Act, Section 303, List of Impaired Water Bodies. The State Water Resources Control Board (SWRCB), in compliance with Section 303(d) of the CWA, prepared a 2014/2016 list of impaired water bodies in California. The SWRCB approved the 2014/2016 California Integrated Report (CWA Section 303(d) List/305(b) Report) on October 3, 2017. On April 6, 2018, the USEPA approved the 2014/2016 California 303(d) List of Water Quality Limited Segments (303[d] list). The 303(d) list includes a priority schedule for the development of TMDL implementation for each contaminant impacting the water body. Coyote Creek is impaired for copper, indicator bacteria, iron, malathion, pH, and toxicity. San Gabriel River Estuary is impaired for nickel, dissolved oxygen, copper, dioxin, and indicator bacteria, and San Pedro Bay is impaired for chlordane, PCBs, DDT, and toxicity. There are no impairments listed for Los Alamitos Channel on the 303(d) list.

The Santa Ana RWQCB has not established any TMDLs that are applicable to the proposed project. It should be noted that San Gabriel River Estuary and San Pedro Bay downstream of the project site are within the jurisdiction of the Los Angeles RWQCB. TMDLs for metals and selenium and indictor bacteria have been established for San Gabriel River Estuary and San Pedro Bay by the Los Angeles RWQCB. However, because San Gabriel River Estuary and San Pedro Bay is within the jurisdiction of the Los Angeles RWQCB, these TMDLs are not applicable to the proposed project.

National Flood Insurance Act. Congress acted to reduce the costs of disaster relief by passing the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. The intent of these acts was to reduce the need for large, publicly funded flood control structures and disaster relief efforts by restricting development in floodplains. FEMA administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in a floodplain. FEMA issues FIRMs of communities participating in the NFIP. These maps delineate flood hazard zones in the community. The City of Cypress manages local stormdrain facilities, and the Orange County Flood Control District (OCFCD) is responsible for regional flood control planning within Orange County.

4.9.3.2 State Regulations

Porter-Cologne Water Quality Control Act of 1970. The federal CWA places the primary responsibility for the control of water pollution and planning the development and use of water resources with the states, although it does establish certain guidelines for the states to follow in developing their programs.

California's primary statute governing water quality and water pollution is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act). The Porter-Cologne Act grants the SWRCB and the nine RWQCBs broad powers to protect water quality and is the primary vehicle for the implementation of California's responsibility under the federal CWA. The Porter-Cologne Act grants the SWRCB and RWQCBs the authority and responsibility to adopt plans and policies, to regulate discharges to surface water and groundwater, to regulate waste disposal sites, and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, oil, or petroleum product.

Each RWQCB must formulate and adopt a water quality plan for its region. The regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also provides that an RWQCB may include in its region a regional plan with water discharge prohibitions applicable to particular conditions, areas, or types of waste. The City, including the project site, is within the jurisdictional boundaries of the Santa Ana RWQCB (Region 8).

California Toxics Rule. As stated previously, because California had not established a complete list of acceptable water quality criteria for toxic pollutants, USEPA Region 9 established numeric water quality criteria for toxic constituents in the form of the CTR. The CTR provides water quality criteria for certain potentially toxic compounds for inland surface waters, enclosed bays, estuaries, and waters designated for human health or aquatic life uses. The CTR is often used by the RWQCBs when establishing water quality objectives and TMDLs. Although the CTR criteria do not apply directly to discharges of stormwater runoff, they are utilized as benchmarks for toxics in urban runoff. The CTR is used as a benchmark to evaluate the potential ecological impacts of stormwater runoff to receiving waters. The CTR establishes acute and chronic surface water quality standards for certain water bodies. Acute criteria provide benchmarks for the highest permissible concentration below which aquatic life can be exposed for short periods of time without deleterious effects. Chronic criteria provide benchmarks for an extended period of time (i.e., 4 days or more) without deleterious effects. The acute CTR criteria have a shorter relevant averaging period (less than 4 days) and provide a more appropriate benchmark for comparison for stormwater flows.

CTR criteria apply to the receiving water body and are calculated based on the probable hardness values of the receiving waters. At higher hardness values for receiving waters, certain constituents (including copper, lead, and zinc) are more likely to be complexed (bound with) components in the water column. This in turn reduces the bioavailability and resulting potential toxicity of these metals.

General Construction Activity Storm Water Permit. The *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities,* Order No. 2009-0009-DWQ, NPDES No. CAS000002, as amended by Order Nos. 2010-0014-DWQ and 2012-0006-DWQ (Construction General Permit), adopted by the SWRCB, regulates construction activity that includes clearing, grading, and excavation resulting in soil disturbance of at least 1 acre of total land area. The Construction General Permit authorizes the discharge of stormwater to surface waters from construction activities.

The Construction General Permit requires that all developers of land where construction activities will occur over more than 1 acre do the following:

- Complete a Risk Assessment to determine pollution prevention requirements pursuant to the three risk levels established in the General Permit;
- Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the United States;
- Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) that specifies Best Management Practices (BMPs) that will reduce pollution in stormwater discharges to the Best Available Technology/Economically Achievable/Best Conventional Pollutant Control Technology standards;
- Perform inspections and maintenance of all BMPs; and
- Conduct stormwater sampling, if required based on risk level.

To obtain coverage under the Construction General Permit, a project applicant must electronically file all permit registration documents with the SWRCB prior to the start of construction. Permit registration documents must include a:

- Notice of Intent (NOI),
- Risk Assessment,
- Site map,
- SWPPP,
- Annual fee, and
- Signed certification statement.

Typical BMPs contained in SWPPPs are designed to minimize erosion during construction, stabilize construction areas, control sediment, and control pollutants from construction materials. The SWPPP must also include a discussion of the program to inspect and maintain all BMPs.

Sustainable Groundwater Management Act. The Sustainable Groundwater Management Act (SGMA) of 2014 is a comprehensive three-bill package that Governor Jerry Brown signed into California state law in September 2014. The SGMA provides a framework for sustainable management of groundwater supplies by local authorities, with a limited role for State intervention

if necessary to protect the resource. The plan is intended to ensure a reliable groundwater supply for California for years to come.

The SGMA requires governments and water agencies of high- and medium-priority basins to halt overdrafts of groundwater basins. The SGMA requires the formation of local Groundwater Sustainability Agencies (GSAs) that are required to adopt Groundwater Sustainability Plans to manage the sustainability of the groundwater basins.

4.9.3.3 Regional Regulations

Water Quality Control Plans (Basin Plans). The Santa Ana RWQCB has adopted a Basin Plan for their region of responsibility that delineates water resource area boundaries based on hydrological features. For the purposes of achieving and maintaining water quality protection, specific beneficial uses have been identified for each of the surface waters and groundwater management zones described in the Basin Plan. Once beneficial uses are designated, appropriate water quality objectives can be established, and programs that maintain or enhance water quality can be implemented to ensure the protection of beneficial uses. There are no beneficial uses listed in the Basin Plan for the downstream surface receiving waters for the project site. Beneficial uses of the Orange Groundwater Management Zone include municipal and domestic supply (MUN), agricultural supply (AGR), industrial service supply (IND), industrial process supply (PROC).

Basin Plans also establish implementation programs to achieve water quality objectives to protect beneficial uses and require monitoring to evaluate the effectiveness of the programs. These objectives must comply with the State antidegradation policy (State Board Resolution No. 68-16), which is designed to maintain high-quality waters while allowing some flexibility if beneficial uses are not unreasonably affected.

Basin Plans have established narrative and numeric water quality objectives for inland surface streams, enclosed bays, estuaries and groundwater. If water quality objectives are exceeded, the RWQCBs can use their regulatory authority to require municipalities to reduce pollutant loads to the affected receiving waters. Relevant surface water quality objectives for all inland surface waters, enclosed bays and estuaries, and groundwater under the jurisdiction of the Santa Ana RWQCB that are applicable to the receiving waters for the project site are shown in Tables 4.9.A, 4.9.B, and 4.9.C, respectively.

In addition, the site-specific water quality objectives for the Orange Groundwater Management Zone are:

- **Total Dissolved Solids:** 580 mg/L
- **Nitrate as Nitrogen:** 3.4 mg/L

There are no site-specific water quality objectives listed in the Basin Plan for the surface receiving waters for the project site.

Table 4.9.A: Surface Water Quality Objectives for Inland Surface Waters

Constituent	Concentration
Algae	Waste discharges shall not contribute to excessive algal growth in inland surface receiving waters.
Boron	Shall not exceed 0.75 mg/L in inland surface waters of the region as a result of controllable water quality factors.
Chlorine (residual)	Chlorine residual in wastewater discharged to inland surface waters shall not exceed 0.1 mg/L.
Color	Waste discharges shall not result in coloration of the receiving waters that causes a nuisance or adversely affects beneficial uses. The natural color of fish, shellfish, or other surface water resources used for human consumption shall not be impaired.
Floatables	Waste discharges shall not contain floating materials, including solids, liquids, foam, or scum, that cause a nuisance or adversely affect beneficial uses.
Metals	Varies based on hardness.
Oil and Grease	Waste discharges shall not result in deposition of oil, grease, wax, or other materials in concentrations that result in a visible film or in coating objects in the water or which cause a nuisance or adversely affect beneficial uses.
Oxygen (dissolved)	Waste discharges shall not cause the median dissolved oxygen concentration to fall below 85% of saturation or the 95th percentile concentration or fall below 75% of saturation within a 30-day period.
pH	Shall not be raised above 8.5 or depressed below 6.5 as a result of controllable water quality factors.
Solids (suspended and settleable)	Shall not cause nuisance or adversely affect beneficial uses as a result of water quality factors.
Sulfides	Shall not increase as a result of controllable water quality factors.
Surfactants	Waste discharges shall not contain concentrations of surfactants that result in foam in the course of flow or use of the receiving water or that adversely affect aquatic life.
Taste and Odor	Shall not contain taste- or odor-producing substances at concentrations that cause a nuisance or adversely affect beneficial uses. The natural taste and odor of fish, shellfish, or other regional inland surface water resources used for human consumption shall not be impaired.
Toxic Substances	Shall not be discharged at levels that will bioaccumulate in aquatic resources to levels that are harmful to human health. Concentrations of toxic pollutants in the water column, sediments, or biota shall not adversely affect beneficial uses.
Turbidity	Where natural turbidity is between 0 and 50 NTU, increases shall not exceed 20%. Where natural turbidity is between 50 NTU and 100 NTU, increases shall not exceed 10 NTU. Where natural turbidity is greater than 100 NTU, increases shall not exceed 10%.

Source: *Water Quality Control Plan, Santa Ana River Basin* (Santa Ana RWQCB 1995, updated June 2019).
mg/L = milligrams per liter
NTU = nephelometric turbidity units
RWQCB = Regional Water Quality Control Board

Table 4.9.B: Water Quality Objectives for Enclosed Bays and Estuaries

Constituent	Concentration
Algae	Waste discharges shall not contribute to excessive algal growth in receiving waters.
Chlorine, Residual	To protect aquatic life, the chlorine residual in wastewater discharged to enclosed bays and estuaries shall not exceed 0.1 mg/L.
Color	Waste discharges shall not result in coloration of the receiving waters which causes a nuisance or adversely affects beneficial uses. The natural color of fish, shellfish or other bay and estuarine water resources used for human consumption shall not be impaired.
Floatables	Waste discharges shall not contain floating materials, including solids, liquids, foam or scum, which cause a nuisance or adversely affect beneficial uses.
Oil and Grease	Waste discharges shall not result in deposition of oil, grease, wax or other materials in concentrations which result in a visible film or in coating objects in the water, or which cause a nuisance or adversely affect beneficial uses.
Oxygen, Dissolved	The dissolved oxygen content of enclosed bays and estuaries shall not be depressed to levels that adversely affect beneficial uses as a result of controllable water quality factors.
pH	The pH of bay or estuary waters shall not be raised above 8.6 or depressed below 7.0 as a result of controllable water quality factors; ambient pH levels shall not be changed more than 0.2 units.
Radioactivity	Radioactive materials shall not be present in the bay or estuarine waters of the region in concentrations which are deleterious to human, plant or animal life.
Solids, Suspended and Settleable	Enclosed bays and estuaries shall not contain suspended or settleable solids in amounts which cause a nuisance or adversely affect beneficial uses as a result of controllable water quality factors.
Sulfides	The dissolved sulfide content of enclosed bays and estuaries shall not be increased as a result of controllable water quality factors.
Surfactants	Waste discharges shall not contain concentrations of surfactants which result in foam in the course of flow or the use of the receiving water, or which adversely affect aquatic life.
Taste and Odor	The enclosed bays and estuaries of the region shall not contain, as a result of controllable water quality factors, taste- or odor-producing substances at concentrations which cause a nuisance or adversely affect beneficial uses. The natural taste and odor of fish, shellfish or other enclosed bay and estuarine water resources used for human consumption shall not be impaired.
Temperature	All bay and estuary waters shall meet the objective specified in the Thermal Plan.
Toxic Substances	The concentrations of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.
Turbidity	All enclosed bay and estuaries of the region shall be free of changes in turbidity which adversely affect beneficial uses.

Source: *Water Quality Control Plan, Santa Ana River Basin* (Santa Ana RWQCB 1995, updated June 2019).
AGR = agricultural supply
mg/L = milligrams per liter
mL = milliliter
MUN = municipal supply
pCi/L = picocuries per liter
pH = percentage of hydrogen

Table 4.9.C: Groundwater Quality Objectives for Groundwater Basins

Constituent	Concentration
Arsenic	Waters with MUN Beneficial Use Designation: Shall not exceed 0.05 mg/L as a result of controllable water quality factors.
Bacteria, Coliform	Waters with MUN Beneficial Use Designation: Total coliform numbers shall not exceed 2.2 organisms/100 mL median over any 7-day period as a result of controllable water quality factors.
Barium	Waters with MUN Beneficial Use Designation: Shall not exceed 1.0 mg/L as a result of controllable water quality factors.
Boron	Shall not exceed 0.75 mg/L as a result of controllable water quality factors.
Chloride	Waters with MUN Beneficial Use Designation: Shall not exceed 500 mg/L as a result of controllable factors.
Color	Waste discharges shall not result in coloration of the receiving waters that causes a nuisance or adversely affects beneficial uses.
Cyanide	Waters with MUN Beneficial Use Designation: Shall not exceed 0.2 mg/L as a result of controllable water quality factors.
Fluoride	Waters with MUN Beneficial Use Designation: Shall not exceed 1.0 mg/L as a result of controllable water quality factors.
Hardness	Waters with MUN Beneficial Use Designation: Shall not be increased as a result of waste discharges to levels that adversely affect beneficial uses.
Metals	Waters with MUN Beneficial Use Designation: Shall not exceed the following: Cadmium 0.01 mg/L; Chromium 0.05 mg/L; Cobalt 0.2 mg/L; Copper 1.0 mg/L; Iron 0.3 mg/L; Lead 0.05 mg/L; Manganese 0.05 mg/L; Mercury 0.002 mg/L; Selenium 0.01 mg/L; and Silver 0.05 mg/L, as a result of controllable water quality factors.
Methylene Blue-Activated Substances	Waters with MUN Beneficial Use Designation: Shall not exceed 0.05 mg/L as a result of controllable water quality factors.
Oil and Grease	Waste discharges shall not result in deposition of oil, grease, wax, or other materials in concentrations that cause a nuisance or adversely affect beneficial uses.
pH	Shall not be raised above 9 or depressed below 6 as a result of controllable water quality factors.
Radioactivity	Waters with MUN Beneficial Use Designation: Shall not exceed the California Code of Regulations, Title 22, standards of 5 pCi/L for combined radium-226 and radium-228, 15 pCi/L for gross alpha particle activity, 20,000 pCi/L for tritium, 8 pCi/L for strontium-90, 50 pCi/L for gross beta particle activity, and 20 pCi/L for uranium.
Sodium	Waters with AGR Beneficial Use Designation: Shall not exceed a sodium absorption rate of 9.
	Waters with MUN Beneficial Use Designation: Shall not exceed 180 mg/L as a result of controllable water quality factors.
Sulfate	Waters with MUN Beneficial Use Designation: Shall not exceed 500 mg/L as a result of controllable water quality factors.
Taste and Odor	Shall not contain taste- or odor-producing substances in concentrations that adversely affect beneficial uses.
Toxic Substances	All waters shall be maintained free of substances in concentrations that are toxic or that produce detrimental physiological responses in human, plant, animal, or aquatic life.

Source: *Water Quality Control Plan, Santa Ana River Basin* (Santa Ana RWQCB 1995, updated June 2019).
AGR = agricultural supply
mg/L = milligrams per liter
mL = milliliter
MUN = municipal supply
pCi/L = picocuries per liter
pH = percentage of hydrogen

Orange County National Pollutant Discharge Elimination System Permit. The City is a Permittee of the *Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and the Incorporated Cities of Orange County within the Santa Ana Region Areawide Urban Storm Water Runoff Orange County* (North Orange County MS4 Permit), Order R8-2009-0030, NPDES No. CAS618030, as amended by Order No. R8-2010-0062. The North Orange County MS4 Permit regulates discharges into the MS4 system in the cities and county areas within Orange County that are in the Santa Ana Region. As discussed further below, the North Orange County MS4 Permit requires preparation of a Water Quality Management Plan (WQMP) and implementation of post-construction BMPs for new development and significant redevelopment projects that qualify as Priority Development Projects.

The proposed project is considered a Priority Development Project because it is a redevelopment project that includes the addition or replacement of 5,000 square feet (sf) or more of impervious surface area.

Drainage Area Management Program. The Drainage Area Management Plan (DAMP) (2003) was created by the County of Orange, the OCFCD, and incorporated cities (permittees), and includes specific water pollutant requirements of the North Orange County Stormwater Program. The DAMP is the principal guidance and compliance document for the countywide implementation of the Stormwater Program. It is the foundation for the permittees to implement model programs designed to prevent pollutants from entering receiving waters to the maximum extent practicable. Section 7 of the DAMP discusses issues relating to new developments and significant redevelopments.

Local Implementation Plan. The City Local Implementation Plan (LIP) is the principal guidance and compliance document specific to the City's jurisdiction for compliance with the requirements of the North Orange County MS4 Permit. The LIP provides the description and details of the City's water quality program implementation activities. The LIP is designed to work in conjunction with the Orange County DAMP. It should be noted that the Cypress LIP takes precedence over DAMP requirements.

Model Water Quality Management Plan. The *Model Water Quality Management Plan* (County of Orange 2011) was developed to aid Orange County, the OCFCD, the cities in Orange County (permittees), and developers in Orange County to address post-construction urban runoff and stormwater pollution from new development and significant redevelopment projects that qualify as Priority Development Projects. The proposed project is categorized as a redevelopment project that would add or replace more than 5,000 sf of imperious surface area and, thus, is considered a Priority Development Project.

Priority Development Projects are required to develop a Project WQMP to minimize adverse impacts of development to on-site hydrology, volume, and rate of runoff, and pollutants of concern. Project WQMPs include project-specific BMPs to minimize these effects (e.g., Low Impact Development [LID], site design measures, source control BMPs). The requirements identified in the project WQMPs are subject to Section 7 of the DAMP.

Technical Guidance Document. The County of Orange developed the *Technical Guidance Document (TGD) for the Preparation of Conceptual/Preliminary and/or Project Water Quality Management Plans (WQMPs)* (Technical Guidance Document) (County of Orange 2013) in cooperation with the incorporated cities of Orange County to aid agency staff and project proponents with addressing post-construction urban runoff and stormwater pollution from new development and significant redevelopment projects in Orange County. The Technical Guidance Document serves as the technical guidance to complete the project WQMP.

Orange County Construction Runoff Guidance Manual. The *Construction Runoff Guidance Manual for Contractors, Project Owners, and Developers* (County of Orange 2012) presents the requirements related to construction from the DAMP. The goal of this Guidance Manual is to control pollutant discharges from construction sites. As such, it helps applicants with building and grading permits to understand the water quality requirements during the construction phase of development projects.

Groundwater Dewatering Permit. The Santa Ana RWQCB requires a permit for discharging wastes to surface waters from activities involving groundwater extraction. The *General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (De Minimis) Threat to Water Quality (*Order No. R8-2009-0003, NPDES No. CAG998001) (De Minimis Permit) covers general waste discharge requirements for discharges to surface waters that pose an insignificant (*de minimis*) threat to water quality within the Santa Ana Region. Under this order, permittees are required to monitor their discharges of groundwater extraction waste from construction to ensure that effluent limitations for constituents are not exceeded.

4.9.3.4 Local Regulations

Cypress Municipal Code. Chapter 13, Article IV, Cypress Water Quality, of the City Municipal Code regulates stormwater and surface runoff water quality. The Municipal Code requires compliance with the Drainage Area Management Plan (DAMP) and Local Implementation Plan (LIP), including preparation of WQMPs for priority development project. Prior to issuance of a grading permit, building permit, and/or safety permit for any new development or significant redevelopment, the property owner is required to submit to and obtain the approval of the WQMP by the City.

4.9.4 Methodology

Project impacts to hydrology and water quality are evaluated based on the proposed project's adherence to local, regional, State, and federal standards; the proposed land uses and project design; changes in pre- and post-project stormwater flows; and proposed BMPs for control of surface runoff and reduction of pollutants in stormwater runoff.

4.9.5 Thresholds of Significance

The thresholds for hydrology and water quality impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines* and the City's *Initial Study/Environmental Checklist*. The proposed project may be deemed to have a significant impact with respect to hydrology and water quality if it would:

Threshold 4.9.1: **Violate any water quality standards or waste discharge requirements?**

Threshold 4.9.2: **Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?**

Threshold 4.9.3: **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?**

Threshold 4.9.4: **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?**

Threshold 4.9.5: **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?**

Threshold 4.9.6: **Otherwise substantially degrade water quality?**

Threshold 4.9.7: **Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?**

Threshold 4.9.8: **Place within a 100-year flood hazard area structures which would impede or redirect flood flows?**

Threshold 4.9.9: **Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?**

Threshold 4.9.10: **Inundation by seiche, tsunami, or mudflow?**

Threshold 4.9.11: **Result in an increase in pollutant discharges to receiving waters? Consider water quality parameters such as temperature, dissolved oxygen, turbidity and other typical stormwater pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash)**

Threshold 4.9.12: **Result in significant alteration of receiving water quality during or following construction?**

Threshold 4.9.13: **Could the proposed project result in increased erosion downstream?**

Threshold 4.9.14: **Result in increased impervious surfaces and associated increased runoff?**

Threshold 4.9.15: **Create a significant adverse environmental impact to drainage patterns due to changes in runoff flow rates or volumes?**

Threshold 4.9.16: **Be tributary to an already impaired water body, as listed on the Clean Water Act Section 303(d) list? If so, can it result in an increase in any pollutant for which the water body is already impaired?**

Threshold 4.9.17: **Be tributary to other environmentally sensitive areas? If so, can it exacerbate already existing sensitive conditions?**

Threshold 4.9.18: **Have a potentially significant environmental impact on surface water quality to either marine, fresh, or wetland waters?**

Threshold 4.9.19: **Have a potentially significant adverse impact on groundwater quality?**

Threshold 4.9.20: **Cause or contribute to an exceeded applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses?**

Threshold 4.9.21: **Impact aquatic, wetland, or riparian habitat?**

Threshold 4.9.22: **Would the project include new or retrofitted stormwater treatment control Best Management Practices (e.g., water quality treatment basin, constructed treatment wetlands), the operation of which could result in significant environmental effects (e.g., increased vectors or odors)?**

4.9.6 Project Impacts

Threshold 4.9.1: **Would the project violate any water quality standards or waste discharge requirements?**

Or

Threshold 4.9.6: **Otherwise substantially degrade water quality?**

Or

Threshold 4.9.11: **Result in an increase in pollutant discharges to receiving waters? Consider water quality parameters such as temperature, dissolved oxygen, turbidity and other typical stormwater pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash)**

Or

Threshold 4.9.12: Result in significant alteration of receiving water quality during or following construction?

Or

Threshold 4.9.18: Have a potentially significant environmental impact on surface water quality to either marine, fresh, or wetland waters?

Less Than Significant Impact.

Construction. Pollutants of concern during construction include sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals. Each of these pollutants on its own or in combination with other pollutants can have a detrimental effect on water quality. During construction, approximately 7 acres of soil would be disturbed. During soil-disturbing construction activities, excavated soil would be exposed, and there would be an increased potential for soil erosion and sedimentation compared to existing conditions. In addition, chemicals, liquid products, petroleum products (e.g., paints, solvents, and fuels), and concrete-related waste may be spilled or leaked and have the potential to be transported via stormwater runoff into receiving waters. Sediment from increased soil erosion and chemicals from spills and leaks have the potential to be discharged to downstream receiving waters during storm events, which can affect water quality and impair beneficial uses.

Because construction of the proposed project would disturb greater than 1 acre of soil, the proposed project is subject to the requirements of the Construction General Permit, as specified in Regulatory Compliance Measure HYD-1. As also specified in Regulatory Compliance Measure HYD-1, a SWPPP would be prepared and construction BMPs detailed in the SWPPP would be implemented during construction, in compliance with the requirements of the Construction General Permit. The SWPPP would detail the BMPs to be implemented during construction. Construction BMPs would include, but not be limited to, Erosion Control and Sediment Control BMPs designed to minimize erosion and retain sediment on site, and Good Housekeeping BMPs to prevent spills, leaks, and discharge of construction debris and waste into receiving waters. Compliance with the requirements of the Construction General Permit, including incorporation of construction BMPs to target and reduce pollutants of concern in stormwater runoff, would ensure that construction impacts related to waste discharge requirements, water quality standards, degradation of water quality, increased pollutant discharge, and alteration of receiving water quality would be less than significant.

According to the Geotechnical Assessment prepared for the project, groundwater at the project site is very shallow, ranging from approximately 5 to 6 ft bgs. Because of the presence of very shallow groundwater, it is likely that groundwater dewatering would be required during excavation activities. Groundwater may contain high levels of total dissolved solids, nitrate, salinity, or other constituents, or high or low pH levels that could be introduced to surface waters when dewatered groundwater is discharged to receiving waters. Groundwater dewatering activities during excavation would be conducted in accordance with the De Minimis Permit as specified in Regulatory Compliance Measure HYD-2. This permit requires testing and treatment (as necessary) of groundwater encountered during groundwater dewatering prior to release to the stormdrain system. As a result, groundwater dewatering would not introduce pollutants to receiving waters at

levels that would violate water quality standards or waste discharge requirements, degrade water quality, increase pollutant discharge, or alter the quality of the receiving water. Impacts to surface water quality from groundwater dewatering would be less than significant.

Operation. Expected pollutants of concern from long-term operation of the proposed project include suspended solids/sediment, nutrients, heavy metals, pathogens (bacteria/virus), pesticides, oil and grease, toxic organic compounds, and trash and debris. The project would be required to comply with the requirements of the North Orange County MS4 Permit and associated guidance documents. The North Orange County MS4 Permit requires that a WQMP be prepared for priority new development and redevelopment projects. WQMPs specify the Source Control, Low Impact Development (LID), and Treatment Control BMPs that would be implemented to capture, treat, and reduce pollutants of concern in stormwater runoff. Source Control BMPs are preventative measures that are implemented to prevent the introduction of pollutants into stormwater. LID BMPs mimic a project site's natural hydrology by using design measures that capture, filter, store, evaporate, detain, and infiltrate runoff rather than allowing runoff to flow directly to piped or impervious storm drains. Treatment Control BMPs are structural BMPs designed to treat and reduce pollutants in stormwater runoff prior to releasing it to receiving waters.

The On-Site Preliminary Water Quality Management Plan and the Off-Site Preliminary Water Quality Management Plan prepared for the project specify the Site Design, Source Control, and Biotreatment BMPs proposed for the project. The proposed BMPs would improve water quality compared to the existing parking lot, which is currently untreated. The BMPs specified in the On-Site Preliminary Water Quality Management Plan and Off-Site Preliminary Water Quality Management Plan would be implemented and maintained, as specified in Regulatory Compliance Measure HYD-3. The proposed project BMPs are detailed below.

Proposed Site Design BMPs include minimize impervious surface area; preserve existing drainage patterns and time of concentration; and disconnect impervious areas. Proposed Non-Structural Source Control BMPs include education for property owners, tenants and occupants; activity restrictions; common area landscape management; BMP maintenance; common area litter control; employee training; common area catch basin inspection; and street sweeping private streets and parking lots. Proposed Structural Source Control BMPs include stormdrain system stenciling and signage and use of efficient irrigation systems and landscape design, water conservation, smart controllers, and source control.

Proposed Biotreatment BMPs include a vegetated swale and proprietary vegetated biotreatment systems (Modular Wetland Systems).

As shown in Figure 3.7(a), On-Site Drainage Plan, in the proposed condition, stormwater runoff on the western and eastern portions of the project site would split and flow south to a proposed storm drain system. Specifically, low stormwater flows on the western portion of the project site would be routed from the proposed storm drain system to a Modular Wetland System located on the southwestern portion of the project site, and low stormwater flows on the eastern portion of the project site would be routed from the proposed storm drain system to a second Modular Wetland System located on the southeastern portion of the project site. The Modular Wetland Systems would retain and treat the low flow stormwater runoff. High stormwater flows would bypass the

Modular Wetland Systems via an internal weir structure. The high stormwater flows and treated stormwater runoff from the Modular Wetland Systems would be temporarily held in a proposed detention system on-site for flood control purposes. Stormwater runoff from the detention system would then drain southwest and would be discharged to an existing 18 inch storm drain along Winners Circle via a proposed on-site pump system, and would then flow west in the existing storm drain beneath Katella Avenue to the Los Alamitos Channel. In the unlikely event of failure of the proposed on-site pump system, a proposed secondary overflow system would direct stormwater flows towards Winners Circle. From Los Alamitos Channel, stormwater runoff would flow to Coyote Creek, then to the San Gabriel River Estuary, out to San Pedro Bay, and ultimately to the Pacific Ocean.

As shown on Figure 3.7(b), Off-Site Drainage Plan, stormwater flows from the off-site project improvements on Vessels Circle would split and flow either west or east. Approximately 75 percent of the off-site runoff from the Vessels Circle extension would flow to one of three proposed bioswales. The remaining 25 percent of the off-site runoff from the Vessels Circle extension would flow southeast to a proposed Modular Wetland System. The proposed bioswales and Modular Wetland System would collect and treat stormwater runoff before discharging it to a proposed stormdrain system that would connect to either Walker Street or the adjacent Los Alamitos Race Course property. Similar to the on-site drainage systems, stormwater flows would be conveyed to the west via the existing storm drain beneath Katella Avenue to the Los Alamitos Channel. From the Los Alamitos Channel, flows would discharge to Coyote Creek before entering the San Gabriel River Estuary, San Pedro Bay, and ultimately the Pacific Ocean.

The proposed BMPs would target and reduce pollutants of concern from runoff from the project site in compliance with the North Orange County MS4 Permit requirements. Compliance with the requirements of the North Orange County MS4 Permit, including incorporation of operational BMPs to target pollutants of concern (as specified in Regulatory Compliance Measure HYD-3), would ensure that water quality impacts, degradation of water quality, increased pollutant discharge, and alteration of receiving water quality during project operation would be less than significant.

Threshold 4.9.2: **Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?**

Less Than Significant Impact. According to the Geotechnical Assessment prepared for the project, groundwater at the project site is very shallow, ranging from approximately 5 to 6 ft bgs. Because of the presence of very shallow groundwater, it is likely that groundwater dewatering would be required during excavation activities. However, groundwater dewatering would be localized and temporary, and the volume of groundwater removed would not be substantial. In addition, any volume of water removed during groundwater dewatering would be minimal compared to the size of the Coastal Plain of the Orange County Groundwater Basin, which has a surface area of 350 sq mi

and a storage capacity of 38,000,000 acre-feet[1]. Construction and operation of the proposed project would not involve direct groundwater extraction. Additionally, the project would not substantially change infiltration on-site because the site is currently primarily (95 percent) impervious surface areas. Additionally, the project would increase infiltration due to the off-site improvements related to the Vessels Circle extension, which is currently 100 percent impervious surface area, by installing bioswales that would allow infiltration to occur. Increased water use would not substantially affect groundwater supplies, because the groundwater basin has been sustainably managed by Orange County Water District (OCWD) over the last 10 years, and it is anticipated that the Coastal Plain of the Orange County Groundwater Basin will continue to be sustainably managed with implementation of the Basin 8-1 Alternative. The Basin 8-1 Alternative establishes objectives and criteria for groundwater management within the Coastal Plain of the Orange County Groundwater Basin.[2] Therefore, construction and operational impacts related to a decrease in groundwater supplies or interference with groundwater recharge would be less than significant, and no mitigation is required.

Threshold 4.9.3: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Or

Threshold 4.9.13: Could the proposed project result in increased erosion downstream?

Less Than Significant Impact.

During project construction activities, soil would be exposed and disturbed, drainage patterns would be temporarily altered during grading and other construction activities, and there would be an increased potential for soil erosion and siltation compared to existing conditions. Additionally, during a storm event, soil erosion and siltation could occur at an accelerated rate. Project construction would not alter the course of a stream or river. As discussed above, the Construction General Permit requires preparation of a SWPPP (Regulatory Compliance Measure HYD-1). The SWPPP would detail Erosion Control and Sediment Control BMPs to be implemented during project construction to minimize erosion and retain sediment on site. With compliance with the requirements of the Construction General Permit and with implementation of the construction BMPs, construction impacts related to on-site, off-site, or downstream erosion or siltation would be less than significant, and no mitigation is required.

Operation. According to the On-Site Preliminary Water Quality Management Plan prepared for the project, impervious surface area on site would decrease by approximately 0.81 acre (an 11.6 percent decrease). According to the Off-Site Preliminary Water Quality Management Plan, the impervious

1 California Department of Water Resources (DWR). 2004. California's Groundwater Bulletin 118. Coastal Plains of Orange County Groundwater Basin.

2 Orange County Water District. 2017. Basin 8-1 Alternative – OCWD Management Area. January 1, 2017.

surface area at the location of the proposed off-site improvements to Vessels Circle would decrease by approximately 0.37 acre (a 38.2 percent decrease). In the proposed condition, approximately 5.84 acres of the project site and approximately 0.58 acre of the area proposed for the off-site Vessels Circle improvements would be impervious surface area and not prone to on-site or off-site erosion or siltation because no soil would be included in these areas. The remaining acreage of the approximately 7-acre project site and approximately 0.95 acre of the area proposed for the off-site Vessels Circle improvements would consist of pervious surface area, which would contain landscaping that would minimize on-site erosion and siltation by stabilizing the soil. Therefore, on-site and off-site erosion and siltation impacts would be minimal.

Increases in stormwater runoff can lead to downstream erosion in receiving waters. However, the proposed project would not increase impervious area on the project site and would therefore not result in a net increase in stormwater runoff. An on-site detention system also restricts runoff from the proposed site to 0.3 cfs/acre (or 2.1 cfs for the project site), a substantial reduction from the existing condition. Additionally, according to the On-Site Preliminary Water Quality Management Plan and Off-Site Preliminary Water Quality Management Plan, downstream receiving waters are not susceptible to hydromodification.[1] Therefore, the proposed project would not increase downstream erosion or siltation impacts. For these reasons, operational impacts related to substantial on-site, off-site, or downstream erosion or siltation would be less than significant, and no mitigation is required.

Threshold 4.9.4: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Or

Threshold 4.9.15: Would the project create a significant adverse environmental impact to drainage patterns due to changes in runoff flow rates or volumes?

Less than Significant Impact.

Construction. As discussed above, project construction would comply with the requirements of the Construction General Permit and would include the preparation and implementation of a SWPPP. The SWPPP would include construction BMPs to control and direct on-site surface runoff and would include detention facilities, if required, to ensure that stormwater runoff from the construction site does not exceed the capacity of the stormwater drainage systems. With implementation of construction BMPs as specified in Regulatory Compliance Measure HYD-1, construction impacts related to a substantial increase in the rate or amount of surface runoff, flow, and volume that would result in flooding would be less than significant, and no mitigation is required.

[1] Hydromodification is the alteration of the hydrologic characteristics of water bodies. Increased stream flows and changes in sediment transport caused by increased impervious areas from urbanization or other land use changes can result in increased stream flows, erosion, and changes in sediment transport.

Operation. In the existing condition, stormwater runoff flows in a southwesterly direction across the adjacent property to the southwest, where it is gathered in ribbon gutters and conveyed towards Katella Avenue. The proposed project would alter the on-site drainage patterns; however, stormwater runoff on the project site would still ultimately be conveyed to the Katella Avenue stormdrain system. As previously discussed, in the proposed condition, low stormwater flows would split and flow south to a proposed storm drain system, and would then flow to two Modular Wetland Systems located on the southwestern and southeastern portions of the project site. High stormwater flows would bypass the Modular Wetland Systems via an internal weir structure. The high stormwater flows and treated stormwater runoff from the Modular Wetland Systems would be temporarily held in a proposed on-site detention system. Stormwater runoff from the detention system would then drain southwest and would be discharged to an existing 18 inch storm drain along Winners Circle via a proposed on-site pump system. Stormwater runoff from the existing 18-inch stormdrain would flow west toward the existing stormdrain system beneath Katella Avenue. Stormwater flows from the off-site project improvements related to the extension of Vessels Circle would split and flow either west or east. Approximately 75 percent of the off-site improvement runoff from the Vessels Circle extension would flow to one of three proposed bioswales, with the remaining 25 percent of the off-site runoff from the Vessels Circle improvements flowing southeast to a proposed Modular Wetland System. The proposed bioswales and proposed Modular Wetland System would collect and treat stormwater runoff, and would discharge stormwater runoff to a proposed stormdrain system that would connect to either Walker Street or the adjacent Los Alamitos Race Course property. The proposed on-site and off-site stormdrain system, including the proposed Modular Wetland Systems and proposed detention system, would be adequately sized to accommodate stormwater runoff so that on- and off-site flooding would not occur.

According to the *Preliminary Hydrology Analysis* prepared for the project, the downstream stormdrain system is at-capacity. As a result, the City restricts peak discharges to 0.3 cfs/acre (or 2.1 cfs for the project site). As demonstrated by the hydraulic modeling conducted as part of the *Preliminary Hydrology Analysis*, the detention system would be designed to attenuate the 100-year storm event peak flow difference between the peak stormwater flow generated on the project site (22.2 cfs) and the allowable discharge flow of 2.1 cfs. With incorporation of the proposed detention system, peak flows discharged to the existing 18-inch storm drain along Winners Circle for the 100-year storm event would be reduced to 2.1 cfs, and would therefore comply with the City's drainage requirements. With implementation of the proposed Modular Wetland Systems and detention system, operational impacts related to a substantial increase in the rate or amount of surface runoff, flow, and volume that would result in flooding would be less than significant, and no mitigation is required.

Threshold 4.9.5: Would the project 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.

Construction. As discussed above, construction of the proposed project has the potential to introduce pollutants to the stormdrain system from erosion, siltation, and accidental spills. However, as specified in Regulatory Compliance Measure HYD-1, the Construction General Permit

requires preparation of a SWPPP, which would identify the construction BMPs to be implemented during construction to reduce impacts to water quality, including those impacts associated with soil erosion, siltation, and spills. In addition, any groundwater extracted during groundwater dewatering activities that is discharged to surface waters would be tested and treated (if necessary) to ensure that any discharges meet the water quality limits specified in the applicable NPDES permit (as specified in Regulatory Compliance Measure HYD-2). Regulatory Compliance Measures HYD-1 and HYD-2 are existing NPDES requirements with which the project is required to comply. These measures would prevent substantial additional sources of polluted runoff being discharged to the stormdrain system through implementation of construction BMPs that target pollutants of concern in runoff from the project site as well as testing and treatment (if required) of groundwater prior to its discharge to surface waters.

Additionally, the SWPPP would include construction BMPs to control and direct surface runoff on site and would include detention measures if required to ensure that stormwater runoff from the construction site does not exceed the capacity of the stormwater drainage systems. For these reasons, construction impacts related to creation or contribution of runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff would be less than significant, and no mitigation is required.

Operation. As discussed above, operation of the project has the potential to introduce pollutants to the stormdrain system from the proposed on-site uses. However, as specified in Regulatory Compliance Measure HYD-3, permanent operational BMPs that target and reduce pollutants of concern in stormwater runoff would be implemented and maintained throughout the life of the project. Regulatory Compliance Measure HYD-3 is an existing NPDES requirement with which the project is required to comply. This measure would prevent substantial additional sources of polluted runoff being discharged to the stormdrain system through implementation of operational BMPs to target pollutants of concern in runoff from the project site. Additionally, the proposed detention system would reduce stormwater runoff from the project site to below existing conditions and at the allowable system capacity of 0.3 cfs/acre. For these reasons, operational impacts related to creation or contribution of runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff would be less than significant, and no mitigation is required.

Threshold 4.9.7: Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

Or

Threshold 4.9.8: Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact. The project site is not located within a 100-year floodplain. According to the Federal Emergency Management Agency (FEMA) Federal Insurance Rate Map (FIRM) No. 06059C0116J (December 3, 2009), the project site is located within Zone X, which comprises areas of 0.2 percent annual chance flood (500-year flood). As the project is not located within a 100-year floodplain, the

project would not place housing or structures within a 100-year flood hazard area. No impact would occur, and no mitigation is required.

Threshold 4.9.9: Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less Than Significant Impact. The project site is not located within the inundation zone of a levee. However, the project site is located within the inundation zone of Prado Dam and the Carbon Canyon Dam.

The Carbon Canyon Dam, which was constructed in 1961 by the USACE and is operated by the USACE Los Angeles District, works in conjunction with the Brea and Fullerton Dams for flood protection of portions of the coastal plains in Orange County.[1] According to the City's General Plan Safety Element (2001), the dam is designed to hold 12,000 acre-feet of water. During a flood event that would cause the dam to exceed its capacity, the portion of Cypress below Orange Avenue could be completely inundated.

Prado Dam was designed in the 1930s, but increased its functioning capability due to Seven Oaks Dam, which was completed in November 1999, and is approximately 40 miles upstream on the Santa Ana River. During a flood, Seven Oaks Dam stores water destined for Prado Dam for as long as the reservoir pool at Prado Dam is rising. When the flood threat at Prado Dam has passed, Seven Oaks Dam begins to release its stored flood water at a rate that does not exceed the downstream channel capacity. Working in tandem, the Prado and Seven Oaks Dams provide increased flood protection to Orange County.

Prado Dam is maintained and inspected to ensure its integrity and to ensure that risks are minimized. In addition, construction of the Santa Ana River Mainstem Project was initiated in 1989, and is scheduled for completion in 2021. The Santa Ana River Mainstem Project will increase levels of flood protection to more than 3.35 million people in Orange, San Bernardino, and Riverside Counties. Improvements to 23 miles of the Lower Santa Ana River channel, from Prado Dam to the Pacific Ocean, are 95 percent complete, with the remaining bank protection improvements in Yorba Linda currently under construction. Improvements to the Santa Ana River channel include construction of new levees and dikes. In addition, the Santa Ana River Mainstem Project includes improvements to Prado Dam that are currently underway and are estimated to be completed in 2021. The Prado Dam embankment has been raised and the outlet works have been reconstructed to convey additional discharges. Remaining improvements to Prado Dam include acquisition of additional land for the expansion of the Prado Reservoir, construction of protective dikes, and raising of the spillway.[2]

---

1 United States Army Corps of Engineers (USACE). Los Angeles District. 2016. Carbon Canyon Dam. Website: http://resreg.spl.usace.army.mil/pages/ccyn.php (accessed November 17, 2020).

2 Orange County Public Works. 2019. Orange County Flood Division. Santa Ana River Project. Website: https://www.ocflood.com/sarp (accessed November 18, 2020).

Although the project would construct new structures in an inundation zone, the proposed project would not increase the chance of inundation from failure of Carbon Canyon Dam or Prado Dam. Additionally, the entire City of Cypress is within a dam inundation zone. The potential for dam failure is remote and the City's emergency evacuation plans would be implemented if these dams were susceptible to rupture during heavy rains or other events. Therefore, project impacts related to the exposure of people and structures to significant risk associated with flooding as a result of dam failure would be less than significant. No mitigation is required.

Threshold 4.9.10: Would the project be subject to inundation by seiche, tsunami, or mudflow?

No Impact. As previously discussed, according to the City's General Plan Safety Element (2001), the project site is located within the inundation zone of Prado Dam and the Carbon Canyon Dam. There are no open bodies of water in the vicinity of the project site and the project is therefore not located within an inundation zone of a seiche. The project site is located approximately 6 miles northeast of the Pacific Ocean and is not located within a tsunami inundation zone, according to the Orange County Tsunami Inundation Maps.[1] The levee inundation zone of Coyote Creek/Carbon Creek is located west of the project site; however, the project site is not located within this inundation area. Furthermore, the project site is relatively flat and not at risk of mudflow. Therefore, no impact from inundation by seiche, tsunami, or mudflow would occur, and no mitigation is required.

Threshold 4.9.14: Would the project result in increased impervious surfaces and associated increased runoff?

No Impact. The proposed project would decrease the amount of impervious surface area on site by approximately 0.81 acre (an 11.6 percent decrease). Additionally, the impervious surface area at the proposed location of the off-site Vessels Circle improvements would decrease by approximately 0.37 acre (a 38.2 percent decrease). Therefore, the proposed project would not increase stormwater runoff from the project site. Additionally, as stated in the *Preliminary Hydrology Analysis*, the proposed project would include a detention system to reduce peak discharges from the project site to 0.3 cfs/acre (or 2.1 cfs for the project site) per City requirements. Because the proposed project would not increase impervious surface area or runoff, no impacts would occur, and no mitigation is required.

Threshold 4.9.16: Would the project be tributary to an already impaired water body, as listed on the Clean Water Act Section 303(d) list? If so, can it result in an increase in any pollutant for which the water body is already impaired?

Less Than Significant Impact. After entering the stormdrain system in Katella Avenue, stormwater runoff from the project site is eventually discharged to Coyote Creek, the San Gabriel River Estuary and San Pedro Bay. Coyote Creek is impaired for copper, indicator bacteria, iron, malathion, pH, and toxicity. The San Gabriel River Estuary is impaired for nickel, dissolved oxygen, copper, dioxin, and indicator bacteria. San Pedro Bay is impaired for chlordane, PCBs, DDT, and toxicity.

[1] California Department of Conservation (DOC). 2019. Orange County Tsunami Inundation Maps. Website: https://www.conservation.ca.gov/cgs/tsunami/maps/orange (accessed November 16, 2020).

As discussed above, construction of the proposed project has the potential to introduce pollutants to the stormdrain system from erosion, siltation, and accidental spills. During construction activities, excavated soil would be exposed and there would be an increased potential for soil erosion and sediment to reach downstream receiving waters, which could result in decreases in dissolved oxygen levels. Chemicals, liquid products, petroleum products (e.g., paints, solvents, and fuels), and concrete-related waste may be spilled or leaked during construction. Therefore, construction has the potential to contribute to the pH impairment. Grading and earthmoving equipment are sources of chemicals, liquid products, and petroleum products if the equipment leaks and could contribute to the metals (nickel, copper, and iron) impairments in downstream receiving waters. Temporary or portable sanitary facilities provided for construction workers could be a source of sanitary waste and contribute to downstream indicator bacteria impairments. However, sanitary waste generated from temporary or portable sanitary facilities would be disposed of in compliance with all applicable regulations. Project construction would not involve use of dioxin or PCBs, which were banned in the U.S. in 1979. In addition, project construction would not involve the use of DDT or chlordane, which were banned in the U.S. in 1972 and 1988, respectively. Therefore, project construction would not contribute to the dioxin, PCBs, DDT, or chlordane impairment. The CWA 303(d) list does not specify the source of toxicity in San Pedro Bay. However, project construction is not anticipated to contribute to the toxicity impairment as construction activities would be required to comply with applicable State and federal regulations for proper transport, use, storage, and disposal of excess hazardous materials and hazardous construction waste. Additionally, as malathion is a pesticide most commonly used in agriculture, residential landscaping, and for mosquito eradication, project construction is not anticipated to contribute to the malathion impairment. As specified in Regulatory Compliance Measure-HYD-1, compliance with the Construction General Permit requires preparation of a SWPPP to identify construction BMPs to be implemented during project construction to reduce impacts to water quality. Construction BMPs would include, but not be limited to, Erosion and Sediment Control BMPs designed to minimize erosion and retain sediment on-site, as well as Good Housekeeping BMPs to prevent spills, leaks, and discharge of construction debris and waste into receiving waters. In addition, during groundwater dewatering, Regulatory Compliance Measure HYD-2 would ensure that pollutants are not introduced to receiving waters and that water quality standards and waste discharge requirements are met.

During operation, expected pollutants of concern include suspended solids/sediment, nutrients, heavy metals, pathogens (bacteria/virus), pesticides, oil and grease, toxic organic compounds, and trash and debris. Pets utilizing the landscaped areas would be a potential source of bacteria (e.g., fecal matter) which could contribute to the indicator bacteria and dissolved oxygen impairment. Vehicles operating within the project site could be a source of heavy metals (nickel, copper, and iron). Therefore, there is the potential for operational pollutants to contribute to the indicator bacteria, nickel, copper, and iron impairments in receiving waters. Project operation would not involve the use of dioxin, PCBs, DDT, or chlordane. Therefore, the project would not contribute to the dioxin, PCBs, DDT, or chlordane impairments. In addition, although malathion could be used for pesticide purposes during operation, it would be used in small doses, if at all, and would therefore not substantially contribute to the malathion impairment. Furthermore, as specified in Regulatory Compliance Measure HYD-3, post-construction BMPs would be implemented and maintained during operation to target and reduce pollutants in stormwater runoff from the project site during operation. The Source Control and Biotreatment BMPs specified in the WQMP would target and

reduce pollutants in stormwater runoff from the project site, including those contributing to downstream water quality impairments. Therefore, with implementation of Regulatory Compliance Measure HYD-3, impacts related to an increase in pollutants for which the receiving waterbody is already impaired as listed on the CWA Section 303(d) list would be less than significant, and no mitigation is required.

Threshold 4.9.17: Would the project be tributary to other environmentally sensitive areas? If so, can it exacerbate already existing sensitive conditions?

No Impact. According to the North Orange County MS4 Permit, Environmentally Sensitive Areas are areas such as those designated in the Ocean Plan as Areas of Special Biological Significance (ASBS) or waterbodies listed on the CWA Section 303(d) list of impaired waters. The project site is not tributary to an ASBS.[1] In addition, the proposed project does not meet the priority development project definition of "a development of 2,500 sf of impervious surface or more, adjacent to (within 200 ft) or discharging directly into Environmentally Sensitive Areas." The nearest CWA Section 303(d) impaired waterbodies are Coyote Creek and the San Gabriel River, which are both located approximately 3 miles downstream of the project site. In addition, the project would not discharge directly into this CWA Section 303(d) impaired water. Therefore, implementation of the proposed project would not result in any impacts to environmentally sensitive areas. No mitigation is required.

Threshold 4.9.19: Would the project have a potentially significant adverse impact on groundwater quality?

Or

Threshold 4.9.20: Would the project cause or contribute to an exceeded applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses?

Less Than Significant Impact. Although groundwater dewatering may be required, dewatered groundwater would not be discharged back to groundwater and instead would be discharged to the stormdrain system. As a result, groundwater dewatering would not substantially degrade groundwater quality or result in the exceedance of water quality objectives or degradation of beneficial uses.

Infiltration of stormwater has the potential to affect groundwater quality in areas of shallow groundwater. As stated previously, groundwater at the project site is shallow, ranging from approximately 5 to 6 ft bgs. Therefore, due to the shallow groundwater table, stormwater may infiltrate during project construction and operation, and has a potential to affect groundwater quality because there is a direct path for pollutants to reach the groundwater table. Proposed construction BMPs, as required by the Construction General Permit and as specified in Regulatory Compliance Measure HYD-1, would reduce infiltration of pollutants to groundwater during

[1] State Water Resources Control Board (SWRCB). 2019. California's Areas of Special Biological Significance. Website: https://www.Water boards.ca.gov/water_issues/programs/ocean/asbs_map.shtml (accessed November 18, 2020).

construction. Proposed Biotreatment BMPs (vegetative swales and Modular Wetland Systems) would capture and filter stormwater runoff on site, and would reduce the volume of stormwater and the infiltration of pollutants into groundwater during operation. Additionally, the project would not substantially change on-site infiltration because the site is currently primarily (95 percent) impervious surface areas. Therefore, minimal infiltration would occur on site during operation. Project construction and operation would not involve groundwater injection. Because runoff would be treated prior to infiltration and no groundwater injection would occur, project construction and operation would not substantially degrade groundwater quality or result in the exceedance of water quality objectives or degradation of beneficial uses. Impacts would be less than significant, and no mitigation would be required.

Threshold 4.9.21: Would the project impact aquatic, wetland, or riparian habitat?

Less Than Significant Impact. The project site is currently developed and located in an urban area. As discussed further in Section 4.3, Biological Resources, no natural streams, federally protected wetlands, or riparian habitat are located on the project site. The Los Alamitos Channel, a downstream receiving water, is a concrete-lined channel, and does not provide aquatic, wetland, or riparian habitat. Although Coyote Creek and the ultimate receiving waters, the San Gabriel River Estuary and San Pedro Bay, support aquatic and riparian habitat, the proposed project would not directly discharge into Coyote Creek, the San Gabriel River Estuary, or San Pedro Bay. Furthermore, the proposed project and would implement construction and operational BMPs, as specified in Regulatory Compliance Measures HYD-1 and HYD-3, to reduce pollutant loading to receiving waters. With implementation of Regulatory Compliance Measures HYD-1 and HYD-3, development of the proposed project would have a less than significant impact on aquatic, wetland, or riparian habitat. No mitigation is required.

Threshold 4.9.22: Would the project include new or retrofitted stormwater treatment control Best Management Practices (e.g., water quality treatment basin, constructed treatment wetlands), the operation of which could result in significant environmental effects (e.g., increased vectors or odors)?

Less Than Significant Impact. As discussed above, the project would include implementation of operational BMPs to reduce impacts related to hydrology and water quality. These operational BMPs would not result in additional impacts not already evaluated throughout this EIR. The operational BMPs would be routinely inspected and maintained to reduce impacts related to vectors and odors. Therefore, impacts related to BMPs would be less than significant, and no mitigation is required.

4.9.7 Level of Significance Prior to Mitigation

Construction and operational impacts related to hydrology and water quality would be less than significant with implementation of Regulatory Compliance Measures HYD-1 through HYD-3.

4.9.8 Regulatory Compliance Measures and Mitigation Measures

4.9.8.1 Regulatory Compliance Measures

The following Regulatory Compliance Measures are existing regulations that are applicable to the proposed project and are considered in the analysis of potential impacts related to hydrology and water quality. The City of Cypress considers these requirements to be mandatory; therefore, they are not mitigation measures.

Regulatory Compliance Measure HYD-1

Construction General Permit. Prior to commencement of construction activities, the Applicant/Developer shall obtain coverage under the *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit),* NPDES No. CAS000002, Order No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ, or any other subsequent permit. This shall include submission of Permit Registration Documents (PRDs), including permit application fees, a Notice of Intent (NOI), a risk assessment, a site plan, a Stormwater Pollution Prevention Plan (SWPPP), a signed certification statement, and any other compliance-related documents required by the permit, to the State Water Resources Control Board via the Stormwater Multiple Application and Report Tracking System (SMARTS). Construction activities shall not commence until a Waste Discharge Identification Number (WDID) is obtained for the project from the SMARTS and provided to the Director of the City of Cypress (City) Community Development Department, or designee, to demonstrate that coverage under the Construction General Permit has been obtained. Project construction shall comply with all applicable requirements specified in the Construction General Permit, including, but not limited to, preparation of a SWPPP and implementation of construction site best management practices (BMPs) to address all construction-related activities, equipment, and materials that have the potential to impact water quality for the appropriate risk level identified for the project. The SWPPP shall identify the sources of pollutants that may affect the quality of stormwater

and shall include BMPs (e.g., Sediment Control, Erosion Control, and Good Housekeeping BMPs) to control the pollutants in stormwater runoff. Construction Site BMPs shall also conform to the requirements specified in the latest edition of the Orange County Stormwater Program *Construction Runoff Guidance Manual for Contractors, Project Owners, and Developers* to control and minimize the impacts of construction and construction-related activities, materials, and pollutants on the watershed. Upon completion of construction activities and stabilization of the project site, a Notice of Termination shall be submitted via SMARTS.

Regulatory Compliance Measure HYD-2

Groundwater Dewatering Permit. If groundwater dewatering is required during excavation activities, the Applicant/Developer shall obtain coverage under the *General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (De Minimis) Threat to Water Quality (*Order No. R8-2009-0003, NPDES No. CAG998001) (*De Minimis* Permit). This shall include submission of a Notice of Intent (NOI) for coverage under the permit to the Santa Ana Regional Water Quality Control Board (RWQCB) at least 45 days prior to the start of dewatering. Groundwater dewatering activities shall comply with all applicable provisions in the permit, including water sampling, analysis, treatment (if required), and reporting of dewatering-related discharges. Upon completion of groundwater dewatering activities, a Notice of Termination shall be submitted to the Santa Ana RWQCB.

Regulatory Compliance Measure HYD-3

Best Management Practices. The Applicant/ Developer shall implement the BMPs identified in Section IV of the On-Site and Off-Site Water Quality Management Plans and the drainage improvements identified in the Hydrology and Hydraulics Study. In addition, the Property Owners Association shall be the responsible party for inspection and maintenance of the on-site BMPs as identified in Section V of the On-Site Water Quality Management Plan. The City shall be the responsible

party for inspection and maintenance of the off-site BMPs as identified in Section V of the Off-Site Water Quality Management Plan.

4.9.8.2 Mitigation Measures

No mitigation measures are required.

4.9.9 Level of Significance after Mitigation

The proposed project would not result in significant impacts related to hydrology and water quality, and no mitigation is required.

4.9.10 Cumulative Impacts

Cumulative development in the San Gabriel River Watershed is a continuation of the existing urban pattern of development that has already resulted in extensive modifications to watercourses in the area. The area's watercourses have been channelized, and drainage systems have been put into place to respond to the past urbanization that has occurred in this area. For the cumulative analysis related to hydrology and water quality, the cumulative projects being considered include the related projects within the same watershed as the proposed project (i.e., the San Gabriel River Watershed) and/or discharging to the same stormdrain systems as the proposed project (i.e., the Katella Avenue stormdrain and the Los Alamitos Channel). Please refer to Table 4.A and Figure 4.1, in Chapter 4.0, Existing Setting, Environmental Analysis, Impacts, and Mitigation Measures, for the descriptions and locations of these related projects.

Related Projects 1, 2, 3, and 9 would discharge to the Katella Avenue stormdrain and then the Los Alamitos Channel. Each of these related projects could potentially increase the volume of stormwater runoff and contribute to pollutant loading in stormwater runoff reaching both the City's stormdrain system and the San Gabriel River Watershed, thereby resulting in cumulative impacts to hydrology and surface water quality. Related Project 4 is located within the Anaheim Bay-Huntington Harbour Watershed and does not discharge to the same stormdrain systems or receiving waters as the project site. These related projects are not considered in this cumulative analysis because they do not have the potential to contribute to the hydrology- and water quality-related impacts of the proposed project to result in cumulative impacts.

New development and redevelopment can result in increased stormwater runoff and increased urban pollutants in stormwater runoff from each of the related project sites. Each related project must include BMPs to reduce impacts to water quality and hydrology in compliance with local ordinances and plans adopted to comply with requirements of the various NPDES permits. Specifically, the related projects that disturb 1 acre or more of soil must comply with the requirements of the Construction General Permit and the North Orange County MS4 Permit. The preparation and approval of a SWPPP (for construction) and a WQMP (for operation) would be required for each related project to determine appropriate BMPs to minimize water quality impacts. In addition, the preparation and approval of a hydrology study would be required to determine the hydrologic control required to minimize increases in runoff from each site so they do not exceed existing conditions or result in hydromodification impacts. In addition, cities review all development

projects on a case-by-case basis to ensure that sufficient local and regional drainage capacity is available.

Each related project must consider impaired receiving waters and TMDLs for receiving waters. The TMDL program is designed to identify all constituents that adversely affect the beneficial uses of water bodies and then identify appropriate reductions in pollutant loads or concentrations from all sources so that the receiving waters can maintain/attain the beneficial uses in the Basin Plan. Thus, by complying with TMDLs, a project's contribution to overall water quality improvement in the San Gabriel River Watershed in the context of the regulatory program is designed to account for cumulative impacts.

Regional programs and BMPs such as TMDL programs and the MS4 Permit Program have been designed under an assumption that the San Gabriel River Watershed would continue its pattern of urbanization. The regional control measures contemplate the cumulative effects of proposed development. The proposed project would be required to comply with the requirements of the Construction General Permit and the North Orange County MS4 Permit and implement construction and operational BMPs to reduce pollutants in stormwater runoff. Compliance with these regional programs and permits constitutes compliance with programs intended to address cumulative water quality impacts. As stated above, each related project would be required to develop a SWPPP, a WQMP, and a hydrology study, and would be evaluated individually to determine appropriate BMPs and treatment measures to reduce impacts to surface water quality and hydrology.

Many City stormdrain systems, including the Katella Avenue stormdrain system, are currently at capacity. Other related projects that would discharge stormwater to the same stormdrain system as the proposed project would have the potential to result in a cumulative impact related to stormdrain capacity and flooding. However, each individual project would be required to prepare a hydrology study, which would be reviewed and approved by the applicable city. The hydrology study would be required to demonstrate that the project would reduce stormwater discharge to at or below that allowed by the city for the individual project site. The City of Cypress has established discharge requirements for each property within its jurisdiction. As those properties are developed or redeveloped, the projects are required to reduce stormwater runoff from the property to meet the runoff restriction established by the City. The runoff restriction ensures that as development and redevelopment within the City continues, stormwater discharged to the existing stormdrain system will continue to be reduced, lessening the existing stormdrain capacity deficit. Because the proposed project includes an on-site detention system that would be adequately sized and designed to reduce flow to the 0.3 cfs/acre runoff restriction, the project would not contribute to the existing stormdrain capacity deficit.

In summary, because the proposed project and other related projects would comply with applicable NPDES requirements and would include BMPs and drainage facilities to reduce the volume of stormwater runoff and pollutants of concern in stormwater runoff, the cumulative hydrology and water quality impacts of the proposed project and the related projects would be less than significant. Therefore, the proposed project's incremental hydrology and water quality impacts would not be cumulatively considerable.

4.10 LAND USE AND PLANNING

This section describes the existing land uses on the Cypress Town Center Project (proposed project) site and in its vicinity, and evaluates the compatibility of the proposed project with surrounding land uses and relevant policy and planning documents. The consistency analysis presented in this section was prepared in compliance with *State CEQA Guidelines* Section 15125(d). Information presented in this section is based on information provided in the City of Cypress (City) General Plan, the Cypress Town Center and Commons Specific Plan 2.0 (Specific Plan, Approved June 5, 2018), the City's General Plan Land Use Map, the City's Zoning Code (2020), and the City's Zoning Map. In addition, pursuant to *State CEQA Guidelines* Section 15125(d), this Draft Environmental Impact Report (EIR) evaluates the proposed project's consistency with other applicable planning documents as they relate to specific topical sections within Chapter 4.0, Existing Environmental Setting, Environmental Analysis, Impacts, and Mitigation Measures.

4.10.1 Scoping Process

The City of Cypress received four comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this Draft EIR. No comment letter(s) included comments related to land use and planning.

4.10.2 Methodology

The impact analysis presented in this Land Use and Planning section evaluates potential physical impacts of the proposed project on land use compatibility and considers whether the proposed project would result in potential inconsistencies with relevant plans or policies contained in applicable planning documents adopted by the City and other agencies. Neither CEQA nor the *State CEQA Guidelines* set forth standards for determining whether or not a project is consistent with an applicable plan; rather, the final determination that a project is consistent or inconsistent with an applicable plan is made by the Lead Agency when it acts on the project. The analysis in this Draft EIR discusses the findings of policy review and is meant to provide a guide for decision-makers during policy interpretation.

A project's inconsistency with a plan or policy is only considered significant if such inconsistency would result in a significant physical environmental impact (per *State CEQA Guidelines* Section 15382). This EIR section determines whether or not the proposed project would conflict with any adopted land use policies or programs and whether mitigation is feasible. Under this approach, a policy or program conflict is not in and of itself considered a significant environmental impact. An inconsistency between the proposed project and an applicable plan is a legal determination that may or may not indicate the likelihood of an environmental impact. In some cases, an inconsistency may be evidence that an underlying physical impact is significant and adverse.

4.10.3 Existing Environmental Setting

The project site is located south of Vessels Circle and west of Walker Street on the southeast portion of the existing Los Alamitos Race Course parking lot (refer to Figure 3.2, Project Vicinity Land Uses in Chapter 3.0, Project Description). The project site consists of an approximately 7-acre portion of two larger properties (Assessor's Parcel Numbers [APNs] 241-091-36 and 241-091-40) (refer to Figure

3.3, Project Site). Additionally, off-site improvements are proposed on adjacent parcels (APNs 241-081-23, 241-091-24, and APN 241-091-40). The project site is a paved parking lot in the existing condition. The project site is relatively flat and devoid of any vegetation except for the 60-foot (ft) wide strip of ornamental trees, palm trees, and grass/shrubs on the north portion of the project site. The existing parking lot currently includes asphalt paving and six overhead light poles. In the existing condition, direct access is only provided to the project site from Costco Way near the southeast corner of the project site.

Temporary existing uses on the project site include vehicle parking during events at the nearby Los Alamitos Race Course. The existing parking lot rarely reaches capacity, except during the Wiener Nationals dog-racing event, which takes place annually in July. On February 24, 2020, the Cypress City Council approved a parking requirement reduction for the Los Alamitos Race Course (Amendment to Conditional Use Permit No. 2013-08, Design Review Committee Permit Nos. 2013-03 and 2014-02, and Site Plan Review No. 3161). This action eliminated the project site from the required parking for the Los Alamitos Race Course.

The project site is surrounded by a variety of racetrack, office, business park, commercial and retail services, and residential land uses as well as several religious facilities. Specifically, land uses surrounding the project site include the Los Alamitos Race Course to the north of the project site. Northeast of the site is a Goodwill Donation Center and Cypress Corporate Park. East of the site, beyond Winners Circle, are commercial and retail services, including a Costco warehouse outlet and restaurant uses. Katella Avenue, a six-lane arterial roadway, borders the project site to the south. Uses to the south of Katella Avenue include commercial and office and business park uses in the City of Los Alamitos. A commercial center consisting of restaurant and commercial services uses, a 24 Hour Fitness, and a Marriott Hotel are to the west. The Barton Place Residential Project (now known as Ovation at Flora Park), and the Seventh-Day Adventist Church are immediately west of the commercial center.

4.10.4 Regulatory Setting

4.10.4.1 Federal Regulations

There are no federal regulations applicable to land use and planning.

4.10.4.2 State Regulations

California State Planning and Zoning Law. This law, which is codified in California Government Code Sections 65000-66037, delegates most of the State's local land use and development decisions to cities and counties. The California Government Code establishes specific requirements pertaining to the regulation of land uses by local governments, including general plan requirements, specific plans, subdivisions, and zoning. California Government Code Section 65302 requires that all California cities and counties include the following seven elements in their general plans:

- Land Use
- Circulation
- Housing
- Conservation
- Open Space
- Noise
- Safety

Cities and counties in the South Coast Air Quality Management District must also address air quality in their general plans. Cities and counties that have identified disadvantaged communities must also address environmental justice in their general plans, including air quality.[1]

Sustainable Communities and Climate Protection Act of 2008 (Senate Bill 375). This statute requires California's regional planning agencies to include a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy in their Regional Transportation Plans (RTP). Senate Bill 375 (SB 375) was enacted to reduce greenhouse gas emissions from automobiles and light trucks through integrated transportation, land use, housing, and environmental planning. Under the law, California's regional planning agencies are required to include an SCS in their RTPs. The SCS provides a plan for meeting the regional emissions reduction targets established by the California Air Resources Board (CARB). If the emissions reduction targets cannot be met through the SCS, an Alternative Planning Strategy (APS) may be developed that shows how the targets would be achieved through alternative development patterns, infrastructure, or additional transportation measures of policies. SB 375 also offers local governments regulatory and other incentives to encourage more compact new development and transportation alternatives.

The requirements of SB 375 are reflected in the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) adopted by the Southern California Association of Governments (SCAG), which serves as the regional planning agency in the six-county metropolitan region composed of Orange, Los Angeles, Ventura, Riverside, San Bernardino, and Imperial Counties. The 2020–2045 RTP/SCS is discussed in further detail below.

4.10.4.3 Regional Regulations

The project site is covered by several planning documents and programs that have varying degrees of regulation over use of the project site. The following paragraphs explain regional regulations, plans, and policies applicable to the project site that are analyzed in this EIR section.

Southern California Association of Governments (SCAG). As discussed above, regional planning in Orange, Los Angeles, Ventura, Riverside, San Bernardino, and Imperial Counties is conducted by SCAG. SCAG is also the federally designated Metropolitan Planning Organization (MPO) for these six counties. As the designated MPO, SCAG is mandated by the federal government to research and prepare plans for transportation, a growth forecast, hazardous waste, and air quality. The growth forecast serves as the foundation of these plans. Of the various plans adopted by SCAG, the Regional Comprehensive Plan and the 2020–2045 RTP/SCS are relevant to the project.

Regional Transportation Plan/Sustainable Communities Strategy. On May 7, 2020, SCAG adopted the 2020–2045 RTP/SCS (Connect SoCal). The 2020–2045 RTP/SCS is a long-range planning document that provides a common foundation for regional and local planning, policymaking, and

[1] Senate Bill 1000 (SB 1000), adopted in 2016 requires both cities and counties that have disadvantaged communities to incorporate environmental justice (EJ) policies into their general plans, either in a separate EJ element or by integrating related goals, policies, and objectives throughout the other elements. This update, or revision if the local government already has EJ goals, policies, and objectives, must happen "upon the adoption or next revision of two or more elements concurrently on or after January 1, 2018."

infrastructure goals in the SCAG region. The core vision for the 2020–2045 RTP/SCS is to increase mobility options and achieve a more sustainable growth pattern. Connect SoCal includes new initiatives at the intersection of land use, transportation and technology to close the gap and reach greenhouse gas reduction goals. The plan also includes robust financial analysis that considers operations and maintenance costs to ensure the existing transportation system's reliability, longevity, resilience and cost effectiveness. In addition, Connect SoCal is supported by a combination of transportation and land use strategies that outline how the region can achieve California's greenhouse gas emission reduction goals and federal Clean Air Act requirements. The plan also strives to achieve broader regional objectives, such as the preservation of natural lands, improvement of public health, increased roadway safety, support for the region's vital goods movement industries and more efficient use of resources.

The following goals in the 2020–2045 RTP/SCS are applicable to the proposed project:

Goal 1: Encourage regional economic prosperity and global competitiveness

Goal 5: Reduce greenhouse gas emissions and improve air quality

Goal 6: Support healthy and equitable communities

Goal 9: Encourage development of diverse housing types in areas that are supported by multiple transportation options

4.10.4.4 Local Regulations

The City has preeminent decision-making authority regarding allowable land uses on the project site. As discussed in greater detail below, the City's General Plan and Zoning Code both apply to the project site; however, the Specific Plan largely governs the permitted uses on, and development standards for, the project site.

City of Cypress General Plan. The City of Cypress General Plan contains goals, policies, and plans that are intended to guide land use and development decisions. The General Plan consists of a Land Use Map and the following eight elements, or chapters, which together fulfill the State requirements for a General Plan:

- Land Use Element
- Housing Element
- Circulation Element
- Conservation/Open Space/Recreation Element (satisfies the State's Conservation and Open Space Element requirements)
- Safety Element
- Noise Element

- Air Quality Element (optional element not required by State law)
- Growth Management Element (optional element not required by State law)

The City of Cypress General Plan was last comprehensively updated by the City Council in September 2001. The Housing Element was last updated in January 2013.

At the heart of the General Plan is the Land Use Element (2001). This element presents the City's goals and policies directing the long-term growth, development, and revitalization of the City. The Land Use Element serves as a guide to the allocation of land use in the City and has major impacts on key issues and subject areas examined in the other elements of the General Plan. The Land Use Map, which illustrates land uses within the City, is a primary feature of the Land Use Element. Land use designations indicate the type and nature of development that is allowed in a given location.

As described in Section 3.0, Project Description, the project site's General Plan land use designation was amended to "Specific Plan Area" with the approval of the Cypress Town Center and Commons Specific Plan 2.0 ballot measure in recognition that the project site is subject to the specific plan.

The following goals and policies included in the General Plan are relevant to the proposed project:

- **Land Use Element**
    - **Goal LU-1:** Create a well balanced land use pattern that accommodates existing and future needs for housing, commercial, industrial and open space/recreation uses, while providing adequate community services to City residents.
    - **Goal LU-2:** Ensure that new development is compatible with surrounding land uses, the circulation network, availability of public facilities, and existing development constraints.
        - **Policy LU-2.1:** Ensure a sensitive transition between commercial or business park uses and residential uses by implementing precise development standards with such techniques as buffering, landscaping, and setbacks.
        - **Policy LU-2.4:** Mitigate traffic congestion and unacceptable levels of noise, odors, dust, and light and glare which affect residential areas and sensitive receptors, where feasible.
    - **Goal LU-10:** Carefully regulate future development in the Business Park to ensure the current high quality environment is maintained.
        - **Policy LU-10.1:** As a condition of development approval in the Business Park, consider the impacts of site utilization, access, and occupancy on traffic generation.
    - **Goal LU-15:** Retain and facilitate the expansion of businesses throughout the City.

- **Circulation Element**
  - **Goal CIR-1:** Maintain a safe, efficient, economical, and aesthetically pleasing transportation system providing for the movement of people, goods, and services to serve the existing and future needs of the City of Cypress.
    - **Policy CIR-1.4:** Require new development to conform to the standards and criteria of the City of Cypress and other mandated programs. This includes mitigation of traffic impacts to the surrounding street system.
    - **Policy CIR-2.8:** Enhance the sidewalk environment to encourage pedestrian activities through streetscape and transit enhancement programs.
- **Conservation/Open Space/Recreation Element**
  - **Goal COSR-3:** Conserve energy resources through the use of available technology and conservation practices.
  - **Goal COSR-5:** Preserve Cypress' archaeologic and paleontologic resources.
    - **Policy COSR-5.2:** Prior to development in previously undeveloped areas, require strict adherence to the CEQA guidelines for environmental documentation and mitigation measures where development will affect archaeological or paleontological resources.
- **Safety Element**
  - **Goal SAF-1:** Protect residents, workers, and visitors from flood hazards, including dam inundation.
  - **Goal SAF-2:** Protect life and property in Cypress from seismic events and resulting hazards.
  - **Goal SAF-3:** Minimize risks to life and property associated with the handling, transporting, treating, generating, and storing of hazardous materials.
  - **Goal SAF-5:** Protect life and property in Cypress from urban fires. Maintain the Orange County Fire Authority’s high level of service to community businesses and residents.
  - **Goal SAF-6:** Maintain the police department's high quality of service to the City.
  - **Goal SAF-8:** Protect Cypress residents from air operation accidents.
- **Noise Element**
  - **Goal N-2:** Incorporate noise considerations into land use planning decisions.
  - **Goal N-3:** Minimize noise spillover from commercial uses into nearby residential neighborhoods.

- **Air Quality Element**
  - **Goal AQ-1:** Reduce air pollution through proper land use and transportation planning.
  - **Goal AQ-2:** Improve air quality by reducing the amount of vehicular emissions in Cypress.
- **Growth Management Element**
  - **Goal GM-1:** Reduce traffic congestion.

Cypress Town Center and Commons Specific Plan 2.0. As set forth in the Land Use Element of the City's General Plan, Specific Plans implement General Plan goals and policies by designating land uses, densities, development, and design standards in more specific detail. The Cypress Town Center and Commons Specific Plan establishes a master plan and regulatory framework for the use and development of 154.4 acres of land, which covers a portion of the Cypress Business and Professional Center Specific Plan area adjacent to the project site. On June 5, 2018, Cypress voters approved the Cypress Town Center and Commons Specific Plan 2.0. The project site is within the boundaries of the Cypress Town Center and Commons Specific Plan 2.0 (Specific Plan, Approved June 5, 2018). The Specific Plan Area is divided into six land use districts that govern the design and development of a mixed-use, sustainable community within the 154.4-acre Specific Plan Area. The project site is designated as part of the Town Center District (TCD) within the Specific Plan Area, which includes approximately 17.5 acres of land and permits a mixture of retail and entertainment uses, as well as hotel, residential, and commercial uses. Section 3.3, of the Specific Plan permits up to 250 multi-family housing units in the TCD. The Specific Plan does not contain any applicable goals or policies.

4.10.5 Thresholds of Significance

The thresholds for land use and planning impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines* and the City's *Initial Study/Environmental Checklist.* The proposed Project may be deemed to have a significant impact with respect to land use and planning if it would:

Threshold 4.10.1: **Physically divide an established community?**

Threshold 4.10.2: **Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?**

4.10.6 Project Impacts

Threshold 4.10.1: **Would the project physically divide an established community?**

No Impact. The area surrounding the project site is developed with a variety of racetrack, office, business park, commercial, and residential land uses. The proposed project would replace approximately seven acres of surface parking with residential uses. The proposed project would complement existing and planned development in the Specific Plan and the adjacent Cypress Corporate Center Specific Plan area. In addition, the proposed project is designed to provide safe

and attractive pedestrian connections to surrounding land uses rather than dividing or separating existing land uses or neighborhoods. As a result, the project would not result in physical divisions in any established community. No mitigation is required.

Threshold 4.10.2: Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect

Less Than Significant Impact. As discussed above, the main documents regulating land use on the project site and the immediate vicinity are the City's General Plan, the Zoning Ordinance, and the Specific Plan. The proposed project's relationship to these planning documents and the proposed project's consistency with the 2020–2045 RTP/SCS are provided below in Tables 4.10.A and 4.10.B.

Table 4.10.A: RTP/SCS Consistency Analysis

Relevant RTP/SCS Goals	Consistency Analysis
RTP/SCS Goal 1: Align the plan investments and policies with improving regional economic development and competitiveness.	**Consistent.** The development of up to 135 new housing units in an area of Cypress that is surrounded by business parks would improve the region's economic competitiveness by ensuring that area workers would have access to new housing in close proximity to their jobs. Therefore, the proposed project would be consistent with Goal 1 in the 2020–2045 RTP/SCS.
RTP/SCS Goal 2: Maximize mobility and accessibility for all people and goods in the region.	**Consistent.** The proposed project would result in the replacement of a currently underutilized parking lot to a mix of land uses located directly adjacent to Katella Avenue, which is one of the City's major travel corridors. Four OCTA bus stops for Westbound and Eastbound Route 50 are located directly adjacent and across the street from the project site, providing connections for the site with the local and regional transportation systems. Access to the project site from Walker Street would be provided by an initial extension of Vessels Circle north of the project site. Additionally, the proposed project is designed to provide safe and attractive pedestrian connections to surrounding land uses. Therefore, the proposed project would be consistent with Goal 2 of the 2020–2045 RTP/SCS.
RTP/SCS Goal 3: Ensure travel safety and reliability for all people and goods in the region.	**Consistent.** All proposed pedestrian improvements included as part of the proposed project would comply with City and OCFA standards to ensure their safety and reliability. Therefore, the proposed project would be consistent with Goal 3 in the 2020–2045 RTP/SCS.
RTP/SCS Goal 4: Preserve and ensure a sustainable regional transportation system.	**Consistent.** As described above in the analysis for Goal 2, the proposed project would provide safe and attractive pedestrian connections to surrounding land uses. The project site would be accessible from the existing bus stops on Katella Avenue, which would provide connections for the site to the local and regional transportation systems. Additionally, the project site is in the vicinity of a Class I regional bike path on Valley View Street and Class II bike lanes on Cerritos Avenue. Therefore, the proposed project would be consistent with Goal 4 in the 2020–2045 RTP/SCS.

Table 4.10.A: RTP/SCS Consistency Analysis

Relevant RTP/SCS Goals	Consistency Analysis
RTP/SCS Goal 5: Maximize the productivity of our transportation system.	**Consistent.** The proposed project would provide access to the site from by an initial extension of Vessels Circle from Walker Street and would provide connections to public sidewalks adjacent to the project site, which would serve to connect the site with the local and regional transportation systems. As such, development of the proposed project would maximize the productivity of the existing roadway network in the vicinity of the site. In addition, the project would have access to OCTA's transportation services and would be in the vicinity of existing bike facilities, which would encourage greater use of the region's existing transportation system. Therefore, the proposed project would be consistent with Goal 5 in the 2020–2045 RTP/SCS.
RTP/SCS Goal 6: Protect the environment and health of our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking).	**Consistent.** As described above in the analysis for Goal 2, the proposed project is designed to provide safe and attractive pedestrian connections to surrounding land uses. The project site would be accessible from the existing bus stops on Katella Avenue, which would provide connections for the site to the local and regional transportation systems. Additionally, the project site is in the vicinity of a Class I regional bike path on Valley View Street and Class II bike lanes on Cerritos Avenue. As described in Section 4.2, Air Quality, of this Draft EIR, construction and operation of the proposed project would result in less than significant air quality impacts with the implementation of Regulatory Compliance Measures. Because the proposed project would encourage active transportation and not degrade air quality, the proposed project would be consistent with Goal 6 in the 2020–2045 RTP/SCS.
RTP/SCS Goal 7: Actively encourage and create incentives for energy efficiency, where possible.	**Consistent.** The proposed project would provide energy efficiency through compliance with the California Green Building Standards Code. The proposed project would also incorporate a number of energy and water conservation measures, green building features, and Low Impact Development design features. Sustainability features proposed as part of the proposed project include, but are not limited to: the implementation of renewable energy (i.e., solar panels and LED lights) and USEPA energy star rating appliances. As such, the proposed project would be consistent with Goal 7 in the 2020–2045 RTP/SCS.
RTP/SCS Goal 8: Encourage land use and growth patterns that facilitate transit and active transportation.	**Consistent.** As described above in the analysis for Goal 2, the proposed project is designed to provide safe and attractive pedestrian connections to surrounding land uses. The project site would be accessible from the existing bus stops on Katella Avenue, which would provide connections for the site to the local and regional transportation systems. Additionally, the project site is in the vicinity of a Class I regional bike path on Valley View Street and Class II bike lanes on Cerritos Avenue. The proposed project would facilitate transit use and active transportation by providing a new dense, mixed-use development on an underutilized property along a major arterial street (Katella Avenue), which is already served by existing transit service on Katella Avenue. New residents would be able to take transit to or walk to surrounding land uses, including nearby jobs in the business parks

Table 4.10.A: RTP/SCS Consistency Analysis

Relevant RTP/SCS Goals	Consistency Analysis
	clustered around the intersection of Valley View Street and Katella Avenue. Therefore, the proposed project would be consistent with Goal 8 in the 2020–2045 /SCS.

Source: Southern California Association of Governments. 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).
LED = light-emitting diode
OCFA = Orange County Fire Authority
OCTA = Orange County Transportation Authority
USEPA = United States Environmental Protection Agency

Table 4.10.B: General Plan Consistency Analysis

Relevant General Plan Goals/Policies	Consistency Analysis
Land Use Element	
Goal LU-1: Create a well balanced land use pattern that accommodates existing and future needs for housing, commercial, industrial and open space/ recreation uses, while providing adequate community services to City residents.	**Consistent.** The proposed project would develop 135 dwelling units in an area of the City that is currently characterized by a mix of residential and commercial uses. As discussed further in Section 4.13, Public Services, and Section 4.17, Utilities and Service Systems, the affected public agencies were contacted during preparation of this EIR to determine potential project-related impacts to affected public agencies. As described in Sections 4.13 and 4.17, the project's impacts to utilities and other public services would be less than significant. Therefore, project implementation would contribute to a well-balanced land use pattern that accommodates the City's existing and future needs for housing and commercial uses, while providing adequate community services to City residents. Therefore, the proposed project would be consistent with General Plan Land Use Element Goal LU-1.
Policy LU-1.2: Allow for multi-family infill in designated areas to satisfy regional housing needs.	**Consistent.** The proposed project would develop housing on an underutilized infill parcel along a major arterial street. As described in further detail in Section 4.12, Population and Housing, the development of new housing on the project site would help the City meet its regional housing needs requirements. Therefore, the proposed project would be consistent with General Plan Land Use Element Policy LU-1.2.
Goal LU-2: Ensure that new development is compatible with surrounding land uses, the circulation network, availability of public facilities, and existing development constraints.	**Consistent.** As demonstrated in this Section 4.10, Land Use and Planning; Section 4.2, Air Quality; and Section 4.11, Noise, the project is designed to be compatible with surrounding land uses. As discussed further in Section 4.15, Transportation, the proposed project would have less than significant impacts on the local circulation network. According to Section 4.13, Public Services, and Section 4.17, Utilities and Service Systems, the proposed project would not have a significant impact on public facilities in light of existing development constraints. Therefore, the proposed project would be consistent with General Plan Land Use Element Goal LU-2.
Policy LU-2.2: Where residential/commercial mixed use is permitted, ensure compatible integration of adjacent uses to minimize conflicts.	**Consistent.** As demonstrated in this Section 4.10, Land Use and Planning; Section 4.2, Air Quality; Section 4.11, Noise; and Section 4.15, Transportation, the project is designed to be compatible with surrounding land uses. Therefore, the proposed project would be consistent with General Plan Land Use Element Policy 2.2.

Table 4.10.B: General Plan Consistency Analysis

Relevant General Plan Goals/Policies	Consistency Analysis
Policy LU-2.4: Mitigate traffic congestion and unacceptable levels of noise, odors, dust, and light and glare which affect residential areas and sensitive receptors, where feasible.	**Consistent.** As discussed in Section 4.15, Transportation, the proposed project would not generate significant adverse impacts related to traffic and transportation. As discussed in Sections 4.1, Aesthetics, 4.2, Air Quality, and 4.11, Noise, sensitive receptors at nearby churches and residential neighborhoods would not experience unacceptable levels of noise, odors, dust, light, or glare as a result of project implementation. Therefore, the proposed project would be consistent with General Plan Land Use Element Policy LU-2.4.
Policy LU-2.7: Encourage the provision of pedestrian linkages between adjacent commercial uses and commercial and residential uses to encourage pedestrian activity and reduce vehicle trips.	**Consistent.** Pedestrian access throughout the project site would be provided within paseos and a sidewalk along the interior curb of the on-site private street. Pedestrian connections would provide access to on-site recreation areas, paseos and landscape areas, and parking areas. The pedestrian connections would also provide off-site access to the future development west of the project site, the approved Cypress City Center mixed-use development south of the project site, and the public sidewalk at Vessels Circle. Therefore, the proposed project would be consistent with General Plan Land Use Element Policy LU-2.7.
Goal LU-5: Ensure that public facilities and services are available to accommodate development allowed under the General Plan and Zoning Ordinance.	**Consistent.** As discussed further in Section 4.13, Public Services, public facilities and services in the City of Cypress would not be significantly impacted by the proposed project. With implementation of mitigation measures or adherence to regulatory standards, project implementation would not disrupt or impair current fire, police, library, or education service levels. As discussed in Section 4.14, Recreation, the proposed project's new residents would generate an incremental increase in demand for park facilities; however, this increased demand would be offset by the payment of park fees required by Regulatory Compliance Measure REC-1. Therefore, the proposed project would be consistent with General Plan Land Use Element Goal LU-5.
Policy LU-5.5: Continue to make incremental improvements to the City's flood control and drainage system.	**Consistent.** As discussed in Section 4.9, Hydrology and Water Quality, the proposed project would result in less than significant impacts related to causing a substantial increase in the rate or amount of surface runoff in a manner that would result in flooding during construction or operation. The proposed project's stormwater detention system would be designed to attenuate the 100- year storm event and meet the City's peak discharge requirement of 4.0 cfs from the project site. Therefore, the proposed project would be consistent with General Plan Land Use Element Policy LU-5.5.
Goal LU-17: Facilitate the expansion of the local serving retail sector.	**Consistent.** The proposed project would build 135 residential units, which would encourage the addition of new local-serving retail establishments to serve new residents. Therefore, the proposed project would be consistent with General Plan Land Use Element Goal LU-17.
Policy LU-17.1: Increase the fiscal benefits to the City by attracting new retail, restaurant and entertainment businesses that can better serve the local population and employment.	**Consistent.** The proposed project would build 135 residential units, which would encourage the addition of new local-serving retail establishments to serve new residents. Therefore, the proposed project would be consistent with General Plan Land Use Element Policy LU-17.1.

Table 4.10.B: General Plan Consistency Analysis

Relevant General Plan Goals/Policies	Consistency Analysis
Policy LU-17.2: Target locations for new retail establishments in heavily traveled areas, such as along Lincoln Avenue and Valley View Street, as well as locations for a potential restaurant row.	**Consistent.** The proposed project would build 135 residential units, which would encourage the addition of new local-serving retail establishments to serve new residents. Therefore, the proposed project would be consistent l with General Plan Land Use Element Policy LU-17.2.
Circulation Element	
Goal CIR-1: Maintain a safe, efficient, economical, and aesthetically pleasing transportation system providing for the movement of people, goods, and services to serve the existing and future needs of the City of Cypress.	**Consistent.** As discussed in Section 4.15, Transportation, the proposed project would result in less than significant impacts related to traffic at all study area intersections. Therefore, the proposed project would be consistent with General Plan Circulation Element Goal CIR-1.
Policy CIR-1.3: Encourage development which contributes to a balanced land use, which in turn serves to reduce overall trip lengths (i.e., jobs/housing balance, locate retail in closer proximity to resident/patrons).	**Consistent.** The proposed project would develop 135 dwelling units in an area of the City that is currently characterized by a mix of residential and commercial uses. Therefore, project implementation would contribute to a well-balanced land use pattern that accommodates the City's existing and future needs for housing and commercial uses, while providing adequate community services to City residents. Therefore, the proposed project would be consistent with General Plan Circulation Element Policy CIR-1.3.
Policy CIR-2.8: Enhance the sidewalk environment to encourage pedestrian activities through streetscape and transit enhancement programs.	**Consistent.** Pedestrian access throughout the project site would be provided within paseos and a sidewalk along the interior curb of the on-site private street. Pedestrian connections would provide access to on-site recreation areas, paseos and landscape areas, and parking areas. The pedestrian connections would also provide off-site access to the future development west of the project site, the approved Cypress City Center mixed-use development south of the project site, and the public sidewalk at Vessels Circle. Therefore, the proposed project would be consistent with General Plan Circulation Element Policy CIR-2.8.
Conservation/Open Space/Recreation Element	
Goal COSR-3: Conserve energy resources through the use of available technology and conservation practices.	**Consistent.** As described in Section 4.5, Energy, the proposed project would comply with the energy efficiency standards included in Title 24 (Regulatory Compliance Measure E-1), which would significantly reduce energy usage. Therefore, the proposed project would be consistent with General Plan Conservation/Open Space/Recreation Element Goal COSR-3.
Goal COSR-5: Preserve Cypress' archaeologic and paleontologic resources.	**Consistent.** As described in Section 4.6, Geology and Soils, the proposed project would implement Mitigation Measure GEO-2, which would require that a qualified paleontologist be contacted in the event that any paleontological resources are discovered during ground-disturbing activities so the discovery can be assessed for scientific importance. The qualified paleontologist shall then make recommendations regarding treatment and disposition of the discovery, the need for paleontological monitoring, and preparation of the appropriate report. Implementation of Mitigation Measure GEO-2 would ensure that impacts to paleontological resources are reduced to a level that is less than significant. As described in Section 4.4, Cultural Resources, the proposed project would implement Mitigation Measure CUL-1, which would require that a qualified professional archaeologist provide cultural resources awareness training prior to the commencement of ground-disturbing

Table 4.10.B: General Plan Consistency Analysis

Relevant General Plan Goals/Policies	Consistency Analysis
	activities. If construction personnel encounter any archaeological deposits during construction activities, a qualified professional archaeologist will be contacted to assess the nature of the find, with the archaeological resources assessed and/or protected as they are discovered. Implementation of Mitigation Measure CUL-1 would ensure that impacts to archaeological resources are reduced to a level that is less than significant. Therefore, the proposed project would be consistent with General Plan Conservation/Open Space/Recreation Element Goal COSR-5.
Policy COSR-5.2: Prior to development in previously undeveloped areas, require strict adherence to the CEQA guidelines for environmental documentation and mitigation measures where development will affect archaeological or paleontological resources.	**Consistent.** Refer to Mitigation Measure CUL-1 in Section 4.4, Cultural Resources, and Mitigation Measure GEO-2 in Section 4.6, Geology and Soils. The proposed project has the potential to affect unknown archaeological and paleontological resources. The proposed project would adhere to the *State CEQA Guidelines* for environmental documentation and mitigation measures where development could affect these resources. Mitigation Measures CUL-1 and GEO-2 would ensure project compliance with CEQA, the California Code of Regulations, the State Health and Safety Code, and the California Public Resources Code as they relate to archaeological and paleontological resources, respectively. Therefore, the proposed project would be consistent with General Plan Conservation/Open Space/Recreation Element Policy COSR-5.2.
Policy COSR-6.1: Continue to require new developments to provide recreational opportunities for their residents in accordance with the City's park standard, three acres of parkland per 1,000 residents.	**Consistent.** As discussed in Section 4.14, Recreation, the proposed project's new residents would generate an incremental increase in demand for park facilities; however, this increased demand would be offset by the payment of park fees required by Regulatory Compliance Measure REC-1. In addition, the proposed project would include public and private open space/recreational amenities. Therefore, the proposed project would be consistent with General Plan Conservation/Open Space/Recreation Element Policy COSR-6.1.
Housing Element	
Goal HOU-3: Encourage the provision of a wide range of housing by location, type of unit, and price to meet the existing and future needs of Cypress residents. Establish a balanced approach to meeting housing needs of both renter and owner households.	**Consistent.** The proposed project would develop residential housing on an underutilized infill parcel. As described in further detail in Section 4.12, Population and Housing, the development of new housing on the project site would help the City meet its regional housing needs requirements. Therefore, the proposed project would be consistent with General Plan Housing Element Goal HOU-3.
Goal HOU-4: Provide adequate housing sites through appropriate land use, zoning, and specific plan designations to accommodate the City's share of regional housing needs.	**Consistent.** As described in further detail in Section 4.12, Population and Housing, the development of new housing on the project site would help the City meet its regional housing needs requirements. Therefore, the proposed project would be consistent with General Plan Housing Goal HOU-4.

Table 4.10.B: General Plan Consistency Analysis

Relevant General Plan Goals/Policies	Consistency Analysis
Safety Element	
Goal SAF-1: Protect residents, workers, and visitors from flood hazards, including dam inundation.	**Consistent.** As described in further detail in Section 4.9 Hydrology and Water Quality, the proposed project would not result in significant impacts related to flooding. Additionally, the project site has a very low likelihood of flooding and the proposed on-site stormdrain system would be adequately sized to accommodate stormwater runoff so that on-site flooding would not occur. Therefore, the proposed project would be consistent with General Plan Safety Element Goal SAF-1.
Goal SAF-2: Protect life and property in Cypress from seismic events and resulting hazards.	**Consistent.** As discussed in further detail in Section 4.6, Geology and Soils, with the implementation of Mitigation Measure GEO-1, which requires compliance with the recommendations in the project Geotechnical Assessment, all impacts related to geological hazards would be less than significant. As such, the proposed project would be consistent with General Plan Safety Element Goal SAF-2.
Goal SAF-5: Protect life and property in Cypress from urban fires. Maintain the Orange County Fire Authority's high level of service to community businesses and residents.	**Consistent.** As discussed in further detail in Section 4.13, Public Services, the proposed project requires the implementation of Mitigation Measure PS-1, which requires the Applicant/Developer to enter into a Secured Fire Protection Agreement with the Orange County Fire Authority. The Secured Fire Protection Agreement with the County Fire Authority would ensure adequate service to the project site. As such, the proposed project would be consistent with General Plan Safety Element Goal SAF-5.
Goal SAF-6: Maintain the police department's high quality of service to the City.	**Consistent.** As discussed in further detail in Section 4.13, Public Services, the proposed project is expected to be adequately served by existing police facilities. Additionally, the proposed hotel, apartment building, movie theater, and retail buildings are anticipated to hire private security, enhancing on-site surveillance and potentially reducing the demand for police services to the project site. Additionally, the Cypress Police Department would review the site plan during the project approval phase and would impose standard conditions of approval. As such, the proposed project would be consistent with General Plan Safety Element Goal SAF-6.
Goal SAF-8: Protect Cypress residents from air operation accidents.	**Consistent.** As discussed in further detail in Section 4.8, Hazards and Hazardous Materials, the proposed project would not result in a safety hazard for people in the project area because the proposed project would comply with all appropriate Federal Aviation Administration (FAA) standards and requirements, including compliance with Federal Aviation Regulations [FAR] Part 77 requirements as required by Regulatory Compliance Measure HAZ-1. As such, the proposed project would be consistent with General Plan Safety Element Goal SAF-8.
Noise Element	
Goal N-2: Incorporate noise considerations into land use planning decisions.	**Consistent.** As discussed in further detail in Section 4.11, Noise, the proposed uses on the project site would be compatible with surrounding uses based on noise standards established by the City. Therefore, the proposed project would result in the development of land uses consistent with the City's noise standards and the proposed project would be consistent with General Plan Noise Element Goal N-2.

Table 4.10.B: General Plan Consistency Analysis

Relevant General Plan Goals/Policies	Consistency Analysis
Goal N-3: Minimize noise spillover from commercial uses into nearby residential neighborhoods.	**Consistent.** As discussed in further detail in Section 4.11, Noise, with the implementation of mitigation measures, which include measures to reduce noise impacts to surrounding residential areas, noise impacts would be less than significant. As such, the proposed project would be consistent with General Plan Noise Element Goal N-3.
Air Quality Element	
Goal AQ-1: Reduce air pollution through proper land use and transportation planning.	**Consistent**. As discussed in further detail in Section 4.2, Air Quality, the proposed project reduces vehicle emissions by increasing internal capture between residential and retail segments. The proposed project would also facilitate transit use by providing a new dense residential development on an underutilized property near a major arterial street (Katella Avenue), which is already served by existing transit service. As such, the proposed project would be consistent with General Plan Air Quality Element Goal AQ-2.
Goal AQ-2: Improve air quality by reducing the amount of vehicular emissions in Cypress.	**Consistent**. As discussed in further detail in Section 4.2, Air Quality, the proposed project reduces vehicle emissions by increasing internal capture between residential and retail segments. The proposed project would also facilitate transit use by providing a new dense residential development on an underutilized property near a major arterial street (Katella Avenue), which is already served by existing transit service. As such, the proposed project would be consistent with General Plan Air Quality Element Goal AQ-2.
Growth Management Element	
Goal GM-1: Reduce traffic congestion.	**Consistent.** As discussed in Section 4.15, Transportation, the proposed project would result in less than significant impacts related to traffic at all study area intersections. Therefore, the proposed project would be consistent with General Plan Growth Management Element Goal GM-1.
Policy GM-4.1: To the extent feasible, utilize information on the jobs/housing balance in the City and region as a factor in land use decision-making.	**Consistent.** According to the Growth Forecast prepared for the 2020–2045 RTP/SCS, the City of Cypress had a jobs-to-household ratio of 1.74, which is slightly higher than that of Orange County overall (1.67). This means that the City experiences a minor influx of workers from surrounding communities. The proposed project's addition of 251 new housing units and approximately 115 new jobs on the project site would slightly lower the City's jobs-to-household ratio from 1.74 to 1.72. Generally speaking, however, the Orange County region suffers from a surplus of jobs and a deficit of housing to serve the workers employed in those jobs. Consistent with the referenced policy, this information will be provided to City decision-makers prior to considering approval of the proposed project. Therefore, the proposed project would be consistent with General Plan Growth Management Element Policy GM-4.1.

Source: City of Cypress General Plan (2001).
RTP/SCS = Regional Transportation Plan/Sustainable Communities Strategy

Cypress Town Center and Commons Specific Plan 2.0. The Cypress Town Center and Commons Specific Plan 2.0 Land Use designations replaced and superseded the land uses within a 154.4-acre portion of the previously approved Cypress Business & Professional Center Specific Plan (Approved April 17, 1990, Amended and Restated June 5, 2012) that previously regulated land uses on the project site. The proposed project would be consistent with development requirements as outlined

in the Specific Plan. The Specific Plan does not include any applicable goals or policies. Therefore, upon its approval by the City Council, the proposed project would be consistent with the Specific Plan.

Zoning Ordinance. The City's Zoning Ordinance is the primary implementation tool for its General Plan Land Use Element (2001) and the goals and policies therein. For this reason, the Zoning Map must be consistent with the General Plan Land Use Map. The General Plan Land Use Map indicates the general location and extent of future land use in Cypress. The Zoning Ordinance, which includes the Zoning Map, contains more detailed information about permitted land uses, building intensities, and required development standards.

The Cypress Town Center and Commons Specific Plan 2.0 is the regulatory plan that constitutes the zoning for the project site. The project site's zoning designation was amended to "PC (Planned Community)" with the approval of the Cypress Town Center and Commons Specific Plan 2.0 ballot measure. The project does not propose any amendments to the City's General Plan, the Specific Plan, or the City's Zoning Ordinance. Therefore, the proposed project is consistent with the City's Zoning Ordinance.

Summary. As discussed above, the proposed project would be consistent with the 2020–2045 RTP/SCS, the City's General Plan, and the Specific Plan. Therefore, the proposed project would result in less than significant impacts related to potential conflicts with applicable land use plans, policies, and regulations, and no mitigation is required.

4.10.7 Level of Significance Prior to Mitigation

The proposed project would result in less than significant impacts related to land use and planning.

4.10.8 Regulatory Compliance Measures and Mitigation Measures

The proposed project would not result in potentially significant impacts related to land use and planning, so no mitigation is required. No regulatory compliance measures are required.

4.10.9 Level of Significance after Mitigation

No mitigation is required. The proposed project would not result in potentially significant impacts related to land use and planning.

4.10.10 Cumulative Impacts

As defined in Section 15130 of the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for land use and planning. The cumulative impact area for land use for the proposed project is the City of Cypress. Several development projects are approved and/or pending within the City. Table 4.A (refer to Chapter 4.0, Existing Setting, Environmental Analysis, Impacts, and Mitigation Measures) lists adopted and planned projects within the City, and Figure 4.1, Location of Related Projects, maps the locations of these projects. Each of these projects, as well as all proposed development in the City, would be

subject to its own General Plan consistency analysis and would be reviewed for consistency with adopted land use plans and policies.

The City of Cypress is an urbanized area with a wide variety of established land uses. The land around the project site has been developed with a variety of residential, business park, racetrack, and commercial, land uses. As previously stated, the project site is within the boundaries of the Cypress Town Center and Commons Specific Plan 2.0 (Specific Plan, Approved June 5, 2018). The Specific Plan Area is divided into six land use districts that govern the design and development of a mixed-use, sustainable community within the 154.4-acre Specific Plan Area. The project site is designated as part of the Town Center District (TCD) within the Specific Plan Area, which includes approximately 17.5 acres of land and permits a mixture of retail and entertainment uses, as well as hotel, residential, and commercial uses. Section 3.3, of the Specific Plan permits up to 250 multi-family housing units in the TCD.

The proposed project would include land uses that would be compatible with the existing and planned neighborhoods and commercial areas surrounding the project site and would replace the existing underutilized parking lot on the project site. Therefore, the proposed project would not contribute to a pattern of development that adversely impacts adjacent land uses or conflicts with existing on site or surrounding land uses.

There are no incompatibilities between the proposed project and planned future projects in the City, which primarily include mixed-use and residential developments. As discussed previously, the proposed project would not divide an established community; conflict with the SCAG 2020–2045 RTP/SCS or any City-adopted plans or policies. All identified City-related projects would be reviewed for consistency with adopted land use plans and policies by the City. For this reason, the related projects are anticipated to be consistent with applicable General Plan and zoning requirements, or would be subject to allowable exceptions; further, they would be subject to CEQA, mitigation requirements, and design review. Therefore, the proposed project would not contribute to a significant cumulative land use compatibility impact in the study area, and no mitigation is required.

This page intentionally left blank

4.11 NOISE

This section evaluates the potential short-term and long-term noise impacts associated with the construction and operation of the Cypress Town Center Project (proposed project). This section is based in part on information provided in the Noise Element of the City of Cypress (City) General Plan and noise measurements conducted near the project site in support of the *Cypress City Center Project Environmental Impact Report* (LSA 2020), which was prepared for the Cypress City Center Project to the southwest between July 10 and July 11, 2019. This analysis assumes that the Cypress City Center Project, which was approved on May 26, 2020, could be constructed prior to the proposed project; therefore, the impact assessment analyzes the potential impacts of the proposed project on the uses within that project, which includes a mix of residential, hotel, and commercial uses. The assumptions used in the noise analysis and the noise modeling results are provided in Appendix I.

4.11.1 Scoping Process

The City of Cypress (City) received four comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this EIR. No comment letter(s) included comments related to noise.

4.11.2 Methodology

Evaluation of noise and vibration impacts associated with the proposed project includes the following:

- Determination of the short-term off-site construction noise and vibration impacts
- Determination of the long-term off-site and on-site traffic noise impacts
- Determination of the long-term off-site stationary noise and vibration impacts from project operations.
- Determination of the required mitigation measures to reduce short-term off-site construction–related noise and vibration impacts and long-term off-site stationary and mobile source noise and vibration impacts.

The evaluation of noise and vibration impacts was prepared in conformance with appropriate standards, utilizing procedures and methodologies in the City of Cypress Noise Element and Municipal Code, the City of Los Alamitos Municipal Code, and Federal Transit Administration (FTA) criteria.

4.11.2.1 Characteristics of Sound

Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep. Several noise measurement scales exist that are used to describe noise in a particular location. A decibel (dB) is a unit of measurement that indicates the relative intensity of a sound. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 dB represents a tenfold increase in acoustic energy, while 20 dB is 100 times more intense, and 30 dB is 1,000 times

more intense. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness; similarly, each 10 dB decrease in sound level is perceived as half as loud. Sound intensity is normally measured through the A-weighted sound level (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. The A weighted sound level is the basis for 24-hour sound measurements, which better represent how humans are more sensitive to sound at night.

As noise spreads from a source, it loses energy; therefore, the farther away the noise receiver is from the noise source, the lower the perceived noise level. Geometric spreading causes the sound level to attenuate or be reduced, resulting in a 6 dB reduction in the noise level for each doubling of distance from a single point source of noise to the noise-sensitive receptor of concern.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. The equivalent continuous sound level (L_{eq}) is the total sound energy of time-varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are the L_{eq}, the community noise equivalent level (CNEL), and the day-night average level (L_{dn}) based on A-weighted decibels. CNEL is the time-varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours), and a 10 dBA weighting factor applied to noises occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale but without the adjustment for events occurring during the evening hours. CNEL and Ldn are within 1 dBA of each other and are normally interchangeable. The City uses the CNEL noise scale for long-term noise impact assessment. Other noise rating scales of importance when assessing the annoyance factor include the maximum instantaneous noise level (L_{max}), which is the highest exponential time-averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis for short-term noise impacts are specified in terms of maximum levels denoted by L_{max}, which reflects peak operating conditions and addresses the annoying aspects of intermittent noise.

Noise impacts can be described in three categories. The first category includes audible impacts that refer to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3 dB or greater because this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1 dB and 3 dB. This range of noise levels has been found to be noticeable only in laboratory environments. The last category includes changes in noise levels of less than 1 dB, which are inaudible to the human ear. Only audible changes in existing ambient or background noise levels (3 dB or greater) are considered potentially significant.

4.11.2.2 Characteristics of Vibration

Vibration refers to ground-borne noise and perceptible motion. Ground-borne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors where the motion may be discernible. However, without the effects associated with the shaking of a building, there is less adverse reaction. Vibration energy propagates from a source through intervening soil and rock layers to the foundations of nearby buildings. The vibration then propagates from the foundation throughout the remainder of the structure. Building vibration may be perceived by

occupants as motion of building surfaces, the rattling of items on shelves or hanging on walls, or a low-frequency rumbling noise. The rumbling noise is caused by the vibrating walls, floors, and ceilings radiating sound waves. Building damage is not a factor for normal operation and construction activities with the occasional exception of blasting and pile driving during construction.

Typical sources of ground-borne vibration are construction activities (e.g., blasting, pile driving, and operating heavy-duty earthmoving equipment), steel-wheeled trains, and occasional traffic on rough roads. Impacts with ground-borne vibration and noise from these sources are usually localized to areas within approximately 100 feet (ft) of the vibration source, although there are examples of ground-borne vibration causing interference out to distances greater than 200 ft (FTA's *Transit Noise and Vibration Impact Assessment Manual*) (FTA Manual) (September 2018). When roadways are smooth, vibration from traffic, even heavy trucks, is rarely perceptible. For most projects, it is assumed that the roadway surface will be smooth enough that ground-borne vibration from street traffic will not exceed the impact criteria; however, construction activities have the potential to result in ground-borne vibration that could be perceptible and annoying. Ground-borne noise is not likely to be a problem because noise arriving via the normal airborne path usually will be greater than ground-borne noise.

Ground-borne vibration has the potential to disturb people as well as damage buildings. Although it is very rare for ground-borne vibration to cause even cosmetic building damage, it is not uncommon for construction processes such as blasting and pile driving to cause vibration of sufficient amplitudes to damage nearby buildings. Ground-borne vibration is usually measured in terms of vibration velocity, either the root-mean-square (RMS) velocity or peak particle velocity (PPV). RMS is best for characterizing human response to building vibration, and PPV is used to characterize the potential for damage. Decibel notation acts to compress the range of numbers required to describe vibration. Vibration velocity level in decibels is defined as:

$$L_V = 20 \log10 [V/Vref]$$

where LV is the velocity in decibels (VdB), "V" is the RMS velocity amplitude, and "Vref" is the reference velocity amplitude, or 1 x 10-6 inches per second (in/sec) used in the United States.

4.11.3 Existing Environmental Setting

4.11.3.1 Overview of the Existing Noise Environment

The primary existing noise sources in the vicinity of the project site are transportation facilities. Traffic on Katella Avenue is a steady source of ambient noise. Other sources of noise in the vicinity of the project site include aircraft noise from the Joint Forces Training Base (JFTB) Los Alamitos, commercial activity, and event noise at the Los Alamitos Race Course. Noise generated from commercial activity includes parking lot activities, rooftop heating ventilation air conditioning (HVAC) equipment, trash pick-up, and truck delivery and truck unloading activities. Noise generated from events held at the Los Alamitos Race Course includes parking lot activities, crowd noise, and the public announcement system. The Los Alamitos Race Course conducts year-round quarter horse races Fridays through Sundays, starting at 7:00 p.m. on Fridays, 6:00 p.m. on Saturdays, and 5:00 p.m. on Sundays, with a closing time of 11:00 p.m. In addition, three thoroughbred events are scheduled each year.

4.11.3.2 Existing Sensitive Land Uses in the Project Vicinity

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Noise-sensitive land uses include residences, hospitals, school classrooms, churches, libraries, and parks. Noise-sensitive land uses in the vicinity of the project site include the following:

- Multi-family residences, located 260 ft to the southwest within the Cypress City Center Project (this residential use has been approved, but is not yet constructed)
- Single family residences, located 1,070 ft to the south of the project site
- SeaCoast Grace Church, located 590 ft to the north of the project site
- Seventh-Day Adventist Church, located 1,160 ft to the southwest of the project site

Other land uses immediately adjacent to the project site include the Los Alamitos Race Course to the northwest, commercial/retail uses to the south, and office and commercial uses to the northeast and east.

4.11.3.3 Existing Noise Levels

The existing noise levels at the project site are assessed from ambient noise levels measurements conducted on the project site, existing aircraft noise, and existing traffic noise levels along roadways in the project vicinity. The existing noise levels in the area surrounding the project site are further described in detail below.

Long-Term Noise Measurements. Long-term (24-hour) noise level measurements were conducted from July 10 to July 11, 2019, using Larson Davis Spark 706RC noise dosimeters at two locations near the project site. Table 4.11.A shows the calculated CNEL from the long-term noise level measurements. As shown in Table 4.11.A, the calculated CNELs are 65.8 dBA CNEL and 61.2 dBA CNEL at LT-1 and LT-2, respectively. The long-term monitoring locations are also shown in Figure 4.11.1.

Short-Term Noise Measurement. One short-term (20-minute) noise level measurement was conducted near the project site on Wednesday, July 10, 2019, using a Larson David Model 824 Type 1 sound level meter. Table 4.11.A shows the results of the short-term measurement along with a description of the measurement location and noise sources that occurred during the measurement. As shown in Table 4.11.A, the measured L_{eq} noise level even with the southern boundary of the project site is 55.8 dBA L_{eq}. In addition, the CNEL level at this location is 60.5 dBA CNEL, which was calculated based on the noise level profile of the long-term noise level measurement at LT-2. Figure 4.11.1 shows the short-term monitoring locations.

LSA

LEGEND

- Project Site Boundary
- R-X - Modeled Receptor Location
- ST-X - Short-term Noise Monitoring Location
- LT-X - Long-term Noise Monitoring Location

0 150 300
FEET

SOURCE: Google Earth (2020)

FIGURE 4.11.1

Cypress Town Center

Noise Monitoring and Modeled Receptor Locations

I:\CCP1603.08\G\Noise\Modeled_Noise_Monitor_Locs.ai (12/2/2020)

This page intentionally left blank

Table 4.11.A: Existing Noise Level Measurements

Location	Description	Range of Daytime Noise Levels (dBA L_{eq})	Range of Evening Noise Levels (dBA L_{eq})	Range of Nighttime Noise Levels (dBA L_{eq})	Average Daily Noise Level (dBA CNEL)
LT-1	Approximately 160 ft north of the Katella Avenue centerline, between Siboney Street and Winners Circle.	60.5–64.2	60.6–61.9	52.6–64.1	65.8
LT-2	Approximately 490 ft north of the Katella Avenue centerline, between Siboney Street and Winners Circle.	57.0–59.5	55.8–58.9	48.0–58.9	61.2
ST-1	Approximately 800 ft north of the Katella Avenue centerline, between Siboney Street and Winners Circle.	55.2–58.9	60.2–63.3	57.4–68.3	60.5

Source: Compiled by LSA (2019).
CNEL= Community Noise Equivalent Level
dBA = A-weighted decibel
ft = foot/feet
L_{eq} = average noise level

4.11.3.4 Existing Aircraft Noise Levels

The Joint Forces Training Base (JFTB) Los Alamitos is located approximately 0.5 mile south of the project site in the City of Los Alamitos. According to the Airport Environs Land Use Plan for JFTB Los Alamitos[1] and Exhibit SAF-8 in the Safety Element of the City's General Plan, the project site is within the 60 dBA CNEL noise contour, but outside of the 65 dBA CNEL noise contour for JFTB Los Alamitos. In addition, the Long Beach Municipal Airport is located approximately 5.4 miles northwest of the project site. According to the Los Angeles County Airport Land Use Plan,[2] the project site is located outside of the 65 dBA CNEL noise contour for the Long Beach Municipal Airport. In addition, there are no private airstrips located on or within the vicinity of the project site.

4.11.3.5 Existing Traffic Noise Levels

The Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108) was used to evaluate traffic noise in the vicinity of the project site. This model requires various parameters, including traffic volumes, vehicle mix, vehicle speed, and roadway geometry, to compute typical equivalent noise levels during daytime, evening, and nighttime hours. The resultant noise levels are weighted and summed over 24-hour periods to determine the CNEL values. Traffic volumes on roadways within the vicinity of the project site were obtained from the *Cypress Town Center 7-AC Residential Project Traffic Operations Assessment* (Traffic Operations Assessment) (Ganddini 2020 [Appendix K of this Draft EIR]) The standard vehicle mix for Southern California roadways was used for the roadways in the vicinity of the project site. The existing traffic noise levels along roadway segments within the vicinity of the project site are presented in Table 4.11.B.

---

1 Airport Land Use Commission. 2017. *Airport Environs Land Use Plan for Joint Forces Training Base Los Alamitos*. Amended August 17, 2017. Website: https://www.ocair.com/commissions/aluc/docs/JFTB, LosAlamitos-AELUP2017.pdf (accessed November 2020).

2 Los Angeles County Airport Land Use Commission (ALUC). 2004. Los Angeles County Airport Land Use Plan. Adopted December 19, 1991, Revised December 1, 2004. Website: http://planning.lacounty.gov/assets/upl/data/pd_alup.pdf (accessed November 2020).

Table 4.11.B: Existing (2020) Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 dBA CNEL (ft)	Centerline to 65 dBA CNEL (ft)	Centerline to 60 dBA CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane
Cerritos Avenue west of Walker Street	30,000	76	156	333	70.2
Cerritos Avenue east of Walker Street	29,000	76	154	326	69.6
Walker Street north of Cerritos Avenue	17,000	< 50	90	189	66.4
Walker Street from Cerritos Avenue to Vessels Circle	24,000	56	112	237	67.9
Walker Street from Vessels Circle to Katella Avenue	24,000	56	112	237	67.9
Valley View Street north of Katella Avenue	45,000	100	205	437	71.2
Valley View Street south of Katella Avenue	55,000	113	234	499	72.1
Katella Avenue west of Siboney Street	45,000	85	170	360	69.9
Katella Avenue from Siboney Street to Walker Street	45,000	85	170	360	69.9
Katella Avenue from Walker Street to Valley View Street	47,000	103	211	449	71.4
Katella Avenue east of Valley View Street	30,000	80	158	334	69.4
Siboney Street north of Katella Avenue	3,200	< 50	< 50	< 50	53.9
Siboney Street south of Katella Avenue	2,500	< 50	< 50	< 50	54.3
Vessels Circle west of Walker Street	400	< 50	< 50	< 50	46.2

Source: Compiled by LSA (2020).
Note: Traffic noise within 50 ft of the roadway centerline should be evaluated with site-specific information.
ADT = average daily traffic
dBA = A-weighted decibels
CNEL = Community Noise Equivalent Level
ft = foot/feet

These traffic noise levels are representative of a worst-case scenario that assumes a flat terrain and no shielding between the traffic and the noise contours. The specific assumptions used in developing these noise levels and the model printouts are provided in Appendix I.

4.11.4 Regulatory Setting

4.11.4.1 Federal Regulations

Federal Transit Administration. The U.S. Department of Transportation FTA identifies guidelines for the maximum acceptable vibration levels for different types of land uses. These guidelines are based on the potential for interference or annoyance from vibration levels in a building and the potential for building damage. According to the FTA Manual, ground vibrations from construction activities generally do not reach levels that can damage structures, but they can achieve the audible and feelable ranges in buildings very close to the construction site. Exceptions include non-engineered timber and masonry buildings such as residential buildings and old or fragile buildings, where special care must be taken to avoid damage. Construction activity can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures, and soil type. Construction vibration is generally associated with pile driving and rock blasting. Other construction equipment, such as air compressors, light trucks, and hydraulic loaders, generates little or no ground vibration.

Occasionally, large bulldozers and loaded trucks can cause perceptible vibration levels at close proximity. With no enforceable regulations in the City of Cypress, the FTA Manual guidelines for potential interference or annoyance shown in Table 4.11.C and potential building damage shown in Table 4.11.D are used to assess vibration impacts of the proposed project and determining the significance vibration impacts.

Table 4.11.C: Interpretation of Vibration Criteria for Detailed Analysis

Land Use	Max L_v (VdB)[1]	Description of Use
Workshop	90	Distinctly feelable vibration. Appropriate to workshops and non-sensitive areas.
Office	84	Feelable vibration. Appropriate to offices and non-sensitive areas.
Residential Day	78	Feelable vibration. Appropriate for computer equipment and low-power optical microscopes (up to 20X).
Institutional	75	Institutional land uses with primarily daytime use. These uses include schools, churches, and doctors' offices.
Residential Night and Operating Rooms	72	Vibration not feelable, but ground-borne noise may be audible inside quiet rooms. Suitable for medium-power microscopes (100X) and other equipment of low sensitivity.

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
[1] As measured in 1/3-octave bands of frequency over the frequency range 8 to 80 Hertz.
FTA = Federal Transit Administration L_V = vibration velocity in decibels VdB = vibration velocity decibels

Table 4.11.D: Interpretation of Vibration Criteria for Detailed Analysis

Building Category	PPV (inch/sec)	Approximate L_V (VdB)[1]
Reinforced concrete, steel, or timber (no plaster)	0.50	102
Engineered concrete and masonry (no plaster)	0.30	98
Non-engineered timber and masonry buildings	0.20	94
Buildings extremely susceptible to vibration damage	0.12	90

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
[1] RMS vibration velocity in decibels (VdB) re 1 µinch/sec.
µinch/sec = microinches per second L_V = vibration velocity in decibels RMS = root-mean-square
FTA = Federal Transit Administration PPV = peak particle velocity VdB = vibration velocity decibels
inch/sec = inches per second

4.11.4.2 State Regulations

State of California Noise Requirements. The State of California sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element, which is to be prepared according to guidelines adopted by the Governor's Office of Planning and Research (OPR). The purpose of the Noise Element, as defined by the OPR guidelines, is to limit the exposure of the community to excessive noise levels. In addition, the *State CEQA Guidelines* include thresholds of significance for analyzing environmental noise impacts.

State of California Building Code. The State of California's noise insulation standards are codified in the California Code of Regulations, Title 24; the Building Standards Administrative Code, Part 2; and the California Building Code (which has been adopted by the City of Cypress, with modifications, as the City's Building Code). These noise standards are applied to new construction in California for the

purpose of controlling interior noise levels resulting from exterior noise sources. The regulations (Chapter 2-35, Part 2, Title 24) specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are developed near major transportation noise sources and where such noise sources create an exterior noise level of 60 dBA CNEL or higher. Acoustical studies that accompany building plans for noise-sensitive land uses must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL.

4.11.4.3 Regional Regulations

There are no regional regulations related to noise that are applicable to the proposed project.

4.11.4.4 Local Regulations

City of Cypress General Plan. The City's General Plan Noise Element has established interior and exterior noise compatibility standards for various land use categories shown in Table 4.11.E. As shown in Table 4.11.E, the City's exterior and interior noise standards are 50–60 dBA CNEL and 45–55 dBA CNEL, respectively, for single- and multifamily residences. It should be noted that the City's exterior noise standard only applies to private yards of single-family residences, private patios, or balconies of multifamily residences which are served by a means of exit from inside the dwelling, mobile home parks, park picnic areas, and school playgrounds. Multifamily residences with balconies that are 6 ft deep or less are exempted from the City's exterior noise standard. Although the City's interior noise standard is 45–55 dBA CNEL, the interior noise standard of 45 dBA CNEL was used for a conservative noise analysis.

Table 4.11.E: City of Cypress Interior and Exterior Noise Standards

Land Use Categories		dBA CNEL	
Categories	**Uses**	**Interior[1]**	**Exterior[2]**
Residential	Single Family Duplex, Multiple Family	45[3]–55	50–60
	Mobile Home	45	65[4]
Commercial Industrial	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

Source: City of Cypress General Plan Noise Element, Table N-3.

[1] Indoor environmental including: bedrooms, living areas, bathrooms, toilets, closets, corridors.

[2] Outdoor environment limited to: private yards of single-family residences, private patios, or balconies of multifamily residences which are served by a means of exit from inside the dwelling (balconies 6 ft deep or less are exempt), mobile home parks, park picnic areas, and school playgrounds.

[3] Noise level requirement with closed windows. Mechanical ventilation system or other means of natural ventilation shall be provided as of Chapter 12, Section 1205 of the Uniform Building Code.

[4] Exterior noise levels should be such that interior noise levels will not exceed 45 dBA CNEL.

CNEL = Community Noise Equivalent Level dBA = A-weighted decibels ft = foot/feet

City of Cypress Municipal Code.

Construction Noise Standards. Section 13-70(e) of the City's Municipal Code states that "noise sources associated with construction, repair, remodeling or grading of any real property, provided said activities do not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, and before 9:00 a.m. and after 8:00 p.m. on Saturdays, or at any time on Sundays or a federal holiday."

To provide a comprehensive and conservative analysis, the operational noise level limits discussed below were used to evaluate noise generated from project construction. The anytime maximum daytime exterior noise level of 80 dBA L_{max} for residential uses in the City of Cypress was used as the acceptable threshold for determining impacts at noise-sensitive land uses from project construction. This threshold is considered a reasonable threshold of significance for potential construction noise impacts because the City of Cypress has established maximum exterior noise standards to control operational noise levels.

Operational Noise Standards. Sections 13-68 and 13-69 of the City's Municipal Code has established exterior and interior noise standards for residential uses from stationary noise sources. The exterior and interior stationary source noise standards are shown in Table 4.11.F. Based on the City's Municipal Code, residential land uses adjacent to the project site in the City of Cypress are designated as Noise Zone 2 because they are zoned as Planned Business Park.

Table 4.11.F: City of Cypress Stationary Noise Standards

Noise Zone	Exterior/ Interior	Time Period	L_{50} (30 mins)[1]	L_{25} (15 mins)[2]	L_8 (5 mins)[3]	L_2 (1 min)[4]	L_{max} (Anytime)[5]
1	Exterior	7:00 AM to 10:00 PM	55	60	65	70	75
		10:00 PM to 7:00 AM	50	55	60	65	70
2	Exterior	7:00 AM to 10:00 PM	60	65	70	75	80
		10:00 PM to 7:00 AM	55	60	65	70	75
1 and 2	Interior	7:00 AM to 10:00 PM	--	--	55	60	65
		10:00 PM to 7:00 AM	--	--	45	50	55

Source: City of Cypress Municipal Code (July 2019).

Note: It shall be unlawful for any person at any location within the incorporated area of the city to create any noise or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person when the foregoing causes the noise level when measured on any other residential property either incorporated or unincorporated to exceed the applicable noise standard. In the event the alleged offensive noise consists of impact noise, simple tone noise, speech, music, or any combination thereof, each of the above noise levels shall be reduced by 5 dBA. In the event the ambient noise level exceeds any of the first four noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

[1] The noise standard for a cumulative period of more than 30 minutes in any hour
[2] The noise standard plus 5 dBA for a cumulative period of more than 15 minutes in any hour
[3] The noise standard plus 10 dBA for a cumulative period of more than 5 minutes in any hour
[4] The noise standard plus 15 dBA for a cumulative period of more than 1 minute in any hour
[5] The noise standard plus 20 dBA for any period of time.

dBA = A-weighted decibels
L_{max} = maximum instantaneous noise level
min/mins = minute/minutes

City of Los Alamitos Municipal Code. The project site is located within and under the jurisdiction of the City of Cypress. However, due to the close proximity to the City of Los Alamitos, and to present a conservative analysis, the analysis in this section also applies the City of Los Alamitos noise

standards to land uses located within Los Alamitos. The City of Los Alamitos Municipal Code, Chapter 17.24, Noise, provides noise control guidelines for evaluating non transportation or stationary-source noise impacts from operations at private properties.

Construction Noise Standards. Section 17.24.020(D) of the City of Los Alamitos Municipal Code, states that "noise sources associated with construction, repair, remodeling or grading of any real property; provided a permit has been obtained from the city; and provided the activities do not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or at any time on Sunday or a federal holiday."

To provide a comprehensive and conservative analysis, the operational noise level limits discussed below were used to evaluate noise generated from project construction because the City of Los Alamitos has not established noise level limits that apply to construction. The anytime maximum exterior noise level of 75 dBA L_{max} for residential uses in the City of Los Alamitos was used as the acceptable threshold for determining impacts at noise-sensitive land uses from project construction. This threshold is considered a reasonable threshold of significance for potential construction noise impacts because the City of Los Alamitos has established maximum exterior noise standards to control operational noise levels.

Operational Noise Standards. Sections 17.24.050 and 17.24.060 of the City of Los Alamitos Municipal Code has established exterior and interior noise standards for various noise zones from stationary noise sources. The exterior and interior stationary source noise standards are shown in Table 4.11.G. Land uses in Noise Zone 1 are all residential properties. Land uses in Noise Zone 2 are all professional office and public institutional properties. Land uses in Noise Zone 3 are all commercial properties, with the exception of professional office properties. Land uses in Noise Zone 4 are all industrial properties.

4.11.5 Thresholds of Significance

The thresholds for noise impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines* and the City's *Initial Study/Environmental Checklist.* The proposed project may be deemed to have a significant impact with respect to noise if it would result in:

Threshold 4.11.1: **Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

Threshold 4.11.2: **Generation of excessive groundborne vibration or groundborne noise levels?**

Threshold 4.11.3: **For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

Table 4.11.G: City of Los Alamitos Stationary Noise Standards

Noise Zone	Exterior/ Interior	Time Period	L_{50} (30 mins)[1]	L_{25} (15 mins)[2]	L_8 (5 mins)[3]	L_2 (1 min)[4]	L_{max} (Anytime)[5]
1	Exterior	7:00 AM to 10:00 PM	55	60	65	70	75
		10:00 PM to 7:00 AM	50	55	60	65	70
2	Exterior	Anytime	55	60	65	70	75
3	Exterior	Anytime	60	65	70	75	80
4	Exterior	Anytime	70	75	80	85	90
1	Interior	7:00 AM to 10:00 PM	--	--	55	60	65
		10:00 PM to 7:00 AM	--	--	45	50	55
2, 3, and 4	Interior	Anytime	--	--	55	60	65

Source: City of Los Alamitos Municipal Code (July 2019).
Note: It shall be unlawful for a person to create noise or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by a person that causes the noise level when measured on a residential, public institutional, professional, commercial, or industrial property either within or without the city to exceed the applicable noise standard. Each of the noise limit specified above shall be reduced by 5 dBA for impact or predominant tone noises, or for noises consisting of speech or music. In the event that the noise source and the affected property are within different noise zoning districts, the noise standards of the affected property shall apply. In the event the ambient noise level exceeds either of the first two noise limit categories above, the cumulative period applicable to said category shall be increased to reflect the ambient noise level. In the event the ambient noise level exceeds the third noise limit category, the maximum allowable noise level under that category shall be increased to reflect the maximum ambient noise level.
[1] The noise standard for a cumulative period of more than 30 minutes in any hour
[2] The noise standard plus 5 dBA for a cumulative period of more than 15 minutes in any hour
[3] The noise standard plus 10 dBA for a cumulative period of more than 5 minutes in any hour
[4] The noise standard plus 15 dBA for a cumulative period of more than 1 minute in any hour
[5] The noise standard plus 20 dBA for any period of time.
dBA = A-weighted decibels
L_{max} = maximum instantaneous noise level
min/mins = minute/minutes

In addition to the *State CEQA Guidelines* Appendix G thresholds above, the quantitative noise and vibration standards in Table 4.11.H below, are used in this analysis to evaluate construction and operational impacts related to noise and vibration.

Table 4.11.H: Summary of Noise and Vibration Standards/Significance Criteria

Noise Analysis	Jurisdiction	Condition(s)	Significance Criteria	
			Daytime	Nighttime
Off-Site Traffic	Cypress and Los Alamitos	Project-related traffic noise increase	≥ 3 dBA CNEL	
On-Site Traffic	Cypress	Interior multifamily residence	45 dBA CNEL	
		Interior hotel and movie theater	45 dBA CNEL	
		Interior commercial retail	55 dBA CNEL	
Operational	Cypress	Exterior residential land use	60 dBA L_{50}	55 dBA L_{50}
		≥ 30 minutes	60 dBA L_{50}	55 dBA L_{50}
		≥ 15 minutes	65 dBA L_{25}	60 dBA L_{25}
		≥ 5 minutes	70 dBA L_8	65 dBA L_8
		≥ 1 minute	75 dBA L_2	70 dBA L_2
		Anytime	80 dBA L_{max}	75 dBA L_{max}
		Interior residential land use	55 dBA L_8	45 dBA L_8
		≥ 5 minutes	55 dBA L_8	45 dBA L_8
		≥ 1 minute	60 dBA L_2	50 dBA L_2
		Anytime	65 dBA L_{max}	55 dBA L_{max}

Table 4.11.H: Summary of Noise and Vibration Standards/Significance Criteria

Noise Analysis	Jurisdiction	Condition(s)	Significance Criteria	
			Daytime	Nighttime
Operational	Los Alamitos	Exterior residential land use	55 dBA L_{50}	50 dBA L_{50}
		≥ 30 minutes	55 dBA L_{50}	50 dBA L_{50}
		≥ 15 minutes	60 dBA L_{25}	55 dBA L_{25}
		≥ 5 minutes	65 dBA L_8	60 dBA L_8
		≥ 1 minute	70 dBA L_2	65 dBA L_2
		Anytime	75 dBA L_{max}	70 dBA L_{max}
		Interior residential land use	55 dBA L_8	45 dBA L_8
		≥ 5 minutes	55 dBA L_8	45 dBA L_8
		≥ 1 minute	60 dBA L_2	50 dBA L_2
		Anytime	65 dBA L_{max}	55 dBA L_{max}
		Exterior office/commercial land use	55 dBA L_{50}/60 dBA L_{50}	
		≥ 30 minutes	55 dBA L_{50}/60 dBA L_{50}	
		≥ 15 minutes	60 dBA L_{50}/65 dBA L_{25}	
		≥ 5 minutes	65 dBA L_{50}/70 dBA L_8	
		≥ 1 minute	70 dBA L_{50}/75 dBA L_2	
		Anytime	75 dBA L_{50}/80 dBA L_{max}	
		Interior office/commercial land use	55 dBA L_8	
		≥ 5 minutes	55 dBA L_8	
		≥ 1 minute	60 dBA L_2	
		Anytime	65 dBA L_{max}	
Construction	Cypress	Permitted hours of construction: Weekdays between 7:00 a.m. and 8:00 p.m. and Saturdays between 9:00 a.m. and 8:00 p.m. No construction shall be permitted outside of these hours or on Sundays and federal holidays.		
	Los Alamitos	Permitted hours of construction: Weekdays and Saturdays between 7:00 a.m. and 8:00 p.m. No construction shall be permitted outside of these hours or on Sundays and federal holidays.		
	Cypress	Noise level threshold	80 dBA L_{max}	N/A
	Los Alamitos	Noise level threshold	75 dBA L_{max}	N/A
	Cypress and Los Alamitos	Vibration level threshold	See Tables 4.11.C and 4.11.D	

Source: Compiled by LSA (2020).
Note: "Daytime" = 7:00 a.m.–10:00 p.m.; "Nighttime" = 10:00 p.m.–7:00 a.m.
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibels
L_{50} = The noise standard for a cumulative period of more than 30 minutes in any hour
L_{25} = The noise standard plus 5 dBA for a cumulative period of more than 15 minutes in any hour
L_8 = The noise standard plus 10 dBA for a cumulative period of more than 5 minutes in any hour
L_2 = The noise standard plus 15 dBA for a cumulative period of more than 1 minute in any hour
L_{max} = The noise standard plus 20 dBA for any period of time.
N/A = Not applicable. Construction during nighttime hours is not permitted. Therefore, no nighttime construction noise level threshold is identified.

4.11.6 Project Impacts

Threshold 4.11.1: Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant Impact.

Construction Noise Impacts. Construction noise associated with the proposed project would be temporary and would vary depending on the nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for on-site construction activities as well as construction vehicle traffic on surrounding roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, paving). Other primary sources of acoustical disturbance would be random incidents, such as dropping large pieces of equipment or the hydraulic movement of machinery lifts. During construction, exterior noise levels could negatively affect residences and the church in the vicinity of the construction site.

The closest residences within the City of Cypress are located approximately 260 ft southwest of the project site. In addition, the closest church is located approximately 590 ft north of the project site. Construction activities would expose nearby sensitive receptors to peak noise levels from 67 to 74 dBA L_{max} during the grading phase, 66 to 73 dBA L_{max} during the trenching phase, 68 to 75 dBA L_{max} during the buildings phase and paving phases, and 59 to 66 dBA L_{max} during the architectural coating phase. These noise levels would not exceed the anytime maximum daytime exterior noise standard of 80 dBA L_{max} in the City of Cypress.

The closest residences within the City of Los Alamitos are located approximately 1,070 ft south of the project site. Construction activities would expose these residences to 63 dBA L_{max} during the building construction and paving phases and all other phases would be lower than 63 dBA L_{max}. Therefore noise levels would not exceed the anytime maximum daytime exterior noise standard of 75 dBA L_{max} in the City of Los Alamitos.

Implementation of Regulatory Compliance Measure NOI-1 would require the proposed project to comply with the permitted construction hours from 7:00 a.m. to 8:00 p.m. on weekdays and 9:00 a.m. to 8:00 p.m. on Saturdays. Construction would not be permitted outside of these hours or on Sundays or federal holidays. The implementation of Standard Condition NOI-1 would further minimize construction-related noise. With the implementation of Regulatory Compliance Measure NOI-1 and Standard Condition NOI-1, construction noise would be a less than significant impact.

Less Than Significant Impact.

Operational Noise.

Long-Term Off-Site Traffic Noise Impacts. The FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108) was used to evaluate traffic noise in the vicinity of the project site. Table 4.11.I shows the modeled traffic noise levels under the existing (2020) year without and with the proposed project. Table 4.11.J shows the modeled traffic noise levels under the opening year (2022) conditions without and with the proposed project. These traffic noise levels are representative of a worst-case scenario that assumes a flat terrain and no shielding between the traffic and the noise contours. The specific assumptions used in developing these noise levels and the model printouts are provided in Appendix I.

Table 4.11.I: Existing (2020) Traffic Noise Levels Without and With Project

Roadway Segment	Without Project Traffic Conditions					With Project Traffic Conditions					
	ADT	Centerline to 70 dBA CNEL (ft)	Centerline to 65 dBA CNEL (ft)	Centerline to 60 dBA CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane	ADT	Centerline to 70 dBA CNEL (ft)	Centerline to 65 dBA CNEL (ft)	Centerline to 60 dBA CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane	Increase from Baseline Condition (dBA)
Cerritos Avenue west of Walker Street	30,000	76	156	333	70.2	30,100	76	156	334	70.2	0.0
Cerritos Avenue east of Walker Street	29,000	76	154	326	69.6	29,100	76	154	327	69.6	0.0
Walker Street north of Cerritos Avenue	17,000	< 50	90	189	66.4	17,100	< 50	91	190	66.4	0.0
Walker Street from Cerritos Avenue to Vessels Circle	24,000	56	112	237	67.9	24,400	57	113	239	68.0	0.1
Walker Street from Vessels Circle to Katella Avenue	24,000	56	112	237	67.9	24,600	57	114	241	68.0	0.1
Valley View Street north of Katella Avenue	45,000	100	205	437	71.2	45,000	100	205	437	71.2	0.0
Valley View Street south of Katella Avenue	55,000	113	234	499	72.1	55,200	113	234	500	72.1	0.0
Katella Avenue west of Siboney Street	45,000	85	170	360	69.9	45,200	85	171	361	69.9	0.0
Katella Avenue from Siboney Street to Walker Street	45,000	85	170	360	69.9	45,200	85	171	361	69.9	0.0
Katella Avenue from Walker Street to Valley View Street	47,000	103	211	449	71.4	47,400	104	212	452	71.4	0.0
Katella Avenue east of Valley View Street	30,000	80	158	334	69.4	30,200	80	159	335	69.5	0.1
Siboney Street north of Katella Avenue	3,200	< 50	< 50	< 50	53.9	3,200	< 50	< 50	< 50	53.9	0.0
Siboney Street south of Katella Avenue	2,500	< 50	< 50	< 50	54.3	2,500	< 50	< 50	< 50	54.3	0.0
Vessels Circle west of Walker Street	400	< 50	< 50	< 50	46.2	1,400	< 50	< 50	< 50	51.6	5.4

Source: Compiled by LSA (2020).
Note: Traffic noise within 50 ft of the roadway centerline should be evaluated with site-specific information.
ADT = average daily traffic
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibels
ft = foot/feet
I-605 = Interstate 605

Table 4.11.J: Opening Year (2022) Traffic Noise Levels Without and With Project

Roadway Segment	Without Project Traffic Conditions					With Project Traffic Conditions					
	ADT	Centerline to 70 dBA CNEL (ft)	Centerline to 65 dBA CNEL (ft)	Centerline to 60 dBA CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane	ADT	Centerline to 70 dBA CNEL (ft)	Centerline to 65 dBA CNEL (ft)	Centerline to 60 dBA CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane	Increase from Baseline Condition (dBA)
Cerritos Avenue west of Walker Street	31,100	77	160	341	70.3	31,200	77	160	342	70.3	0.0
Cerritos Avenue east of Walker Street	30,100	78	157	334	69.8	30,200	78	158	335	69.8	0.0
Walker Street north of Cerritos Avenue	17,700	< 50	92	194	66.6	17,800	< 50	93	195	66.6	0.0
Walker Street from Cerritos Avenue to Vessels Circle	25,700	58	117	248	68.2	26,100	59	118	250	68.3	0.1
Walker Street from Vessels Circle to Katella Avenue	25,800	58	117	248	68.2	26,400	59	119	252	68.3	0.1
Valley View Street north of Katella Avenue	46,500	102	210	446	71.3	46,500	102	210	446	71.3	0.0
Valley View Street south of Katella Avenue	57,200	116	240	512	72.2	57,400	116	240	513	72.2	0.0
Katella Avenue west of Siboney Street	50,100	90	182	386	70.4	50,300	91	183	387	70.4	0.0
Katella Avenue from Siboney Street to Walker Street	50,800	91	184	390	70.4	51,000	91	184	391	70.5	0.1
Katella Avenue from Walker Street to Valley View Street	48,200	105	214	457	71.5	48,600	105	216	459	71.5	0.0
Katella Avenue east of Valley View Street	32,100	83	165	349	69.7	32,300	83	166	351	69.8	0.1
Siboney Street north of Katella Avenue	5,400	< 50	< 50	< 50	56.2	5,400	< 50	< 50	< 50	56.2	0.0
Siboney Street south of Katella Avenue	5,000	< 50	< 50	< 50	57.3	5,000	< 50	< 50	< 50	57.3	0.0
Vessels Circle west of Walker Street	400	< 50	< 50	< 50	46.2	1,400	< 50	< 50	< 50	51.6	5.4

Source: Compiled by LSA (2020).
Note: Traffic noise within 50 ft of the roadway centerline should be evaluated with site-specific information.
ADT = average daily traffic
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibels
ft = foot/feet

As shown in Tables 4.11.I and 4.11.J, the modeled project-related traffic noise increase would be less than 3 dBA under both scenarios on all roadways with the exception of Vessels Circle. However, the land uses in the vicinity of Vessels Circle consist of office uses to the north and south, which as shown in Table 4.11.E do not have an exterior noise standard. Resulting noise levels would remain lower than the residential noise standard and noise levels would not expose noise-sensitive receptors to a significant increase in noise levels. Noise level increases on other segments would be 0.0–0.1 dBA. Noise level increases less than 3 dBA would not be perceptible to the human ear in an outdoor environment. Therefore, the proposed project's long-term off-site traffic noise impacts would be less than significant.

Long-Term Stationary-Source Noise Impacts. The proposed project would include on-site stationary noise sources from HVAC equipment.

HVAC Equipment. The proposed project would require the use of HVAC units for the proposed buildings. Noise generated from HVAC units could impact sensitive receptors within the vicinity of the project site by exceeding the City's daytime and nighttime exterior noise standard. However, noise levels from HVAC equipment would be minimized with compliance with Section 3.11.100(b) in the City's Municipal Code (Regulatory Compliance Measure NOI-2), which requires that mechanical equipment in residential, commercial, and industrial zoning districts be enclosed within a structure or completely screened from the view of surrounding properties by the use of a fence or wall.

The proposed project would have 19 ground-level air handlers along the western side of the project site. The units would vary in distance from 260 ft to 830 ft from the nearest sensitive uses. To be conservative, it was assumed that all units would be in operation simultaneously. Based on reference noise level measurements from the manufacturer Trane, mechanical ventilation equipment is likely to approach 66.6 dBA L_{eq} at a distance of 5 ft.

Utilizing the equation below for each unit, air handler operations would result in a composite level of 34.0 dBA L_{eq} at the nearest sensitive receptor to the southwest. This noise level would be well below the City's exterior daytime and nighttime noise levels standards of 55 dBA L_{eq} and 50 dBA L_{eq}, respectively.

$$Leq\ (at\ distance\ X\ feet) = Leq(at\ 3\ feet) \quad -20 * \log_{10}\left(\frac{X}{3}\right)$$

Additionally, Regulatory Compliance Measure NOI-2, which would require the project Applicant/ Developer to demonstrate, to the satisfaction of the City of Cypress Community Development Department, that on-site stationary noise sources, such as rooftop air conditioners, comply with City noise standards as stated in the City's Municipal Code Sections 13-68 and 13-69, would further minimize noise generated from HVAC units. Therefore, the noise levels generated by the proposed project's HVAC equipment would be less than significant with adherence to Section 3.11.100(b) and Sections 13-68 and 13-69 in the City's Municipal Code.

Threshold 4.11.2: Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures, and soil type. Ground-borne vibration from construction activities associated with the proposed project would cause intermittent and temporary vibration events. Construction activities during the site preparation, grading, and paving phase would have the potential to generate ground-borne vibration. Construction equipment that would generate vibration levels during these phases of construction would include large bulldozers and loaded trucks. Ground-borne vibration levels generated from large bulldozers and loaded trucks during project construction were estimated using reference vibration levels from the FTA Manual. Large bulldozers and loaded trucks would generate a vibration level of 87 VdB (0.087 PPV [inch/sec]) and 86 VdB (0.076 PPV [inch/sec]), respectively.

Table 4.11.K show the vibration levels at the closest residential, church, office, and commercial building from each type of construction equipment. Other buildings in the vicinity of the project site are located further away and would experience lower vibration levels. As shown in Table 4.11.K, vibration levels generated during project construction would not result in a community annoyance because vibration levels would not exceed the FTA Manual community annoyance threshold of 84 VdB for office and commercial uses, 78 VdB for residences during daytime hours, and 75 VdB for institutional land uses. In addition, vibration levels would not result in building damage because vibration levels would not exceed the FTA Manual damage threshold of 94 VdB (0.2 PPV [inch/sec]) and nearby buildings were observed to be constructed of non-engineered timber and masonry. Therefore, ground-borne vibration and ground-borne noise levels generated by project construction activities would be less than significant.

Table 4.11.K: Construction Vibration Levels

Land Use	Direction	Equipment/	Reference Vibration Level (VdB)	Reference Vibration Level (PPV)	Reference Vibration Distance (ft)	Distance (ft)	Maximum Vibration Level (VdB)	Maximum Vibration Level (PPV)
Church	North	Large Bulldozers	87	0.089	25	590	46	0.001
		Loaded Trucks	86	0.076	25	590	45	0.001
Office/ Commercial	Northeast	Large Bulldozers	87	0.089	25	190	61	0.004
		Loaded Trucks	86	0.076	25	190	60	0.004
Office/ Commercial	East	Large Bulldozers	87	0.089	25	230	58	0.003
		Loaded Trucks	86	0.076	25	230	57	0.003
Commercial	South	Large Bulldozers	87	0.089	25	65	75	0.021
		Loaded Trucks	86	0.076	25	65	74	0.018
Residential	South	Large Bulldozers	87	0.089	25	1,080	38	0.000
		Loaded Trucks	86	0.076	25	1,080	37	0.000
Residential	Southwest	Large Bulldozers	87	0.089	25	260	56	0.003
		Loaded Trucks	86	0.076	25	260	55	0.002

Source: Compiled by LSA Associates, Inc. (2020).
Note: The FTA-recommended building damage threshold is 94 VdB (0.2 PPV [inch/sec]) at the receiving structure or building.
ft = foot/feet
FTA = Federal Transit Administration
inch/sec = inch/inches per second
PPV = peak particle velocity
VdB = vibration velocity decibels

The proposed project would not generate off-site ground-borne vibration or ground-borne noise levels during long-term operations of the HVAC equipment. In addition, vibration levels generated from project-related traffic on the closest roadways (Katella Avenue and Walker Street) would be unusual for on-road vehicles because the rubber tires and suspension systems of on-road vehicles provide vibration isolation. Therefore, operation of the proposed project would not result in excessive ground-borne vibration or ground-borne noise levels, and no mitigation is required.

Threshold 4.11.3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less Than Significant Impact. The closest airport to the project site is JFTB Los Alamitos, located approximately 0.5 mile south of the project site. According to the *Airport Environs Land Use Plan for JFTB Los Alamitos* and Exhibit SAF-8 in the Safety Element of the City's General Plan, the project site is within the 60 dBA CNEL noise contour, but outside of the 65 dBA CNEL noise contour for JFTB Los Alamitos. Although the project site is located within Noise Impact Zone 2 (moderate noise impact), it is outside of Noise Impact Zone 1 (high noise impact) defined by the Airport Environs Land Use Plan.

The second closest airport is the Long Beach Municipal Airport, located approximately 5.5 miles west of the project site. According to the Los Angeles County Airport Land Use Plan, the project site is located outside of the 65 dBA CNEL noise contour for Long Beach Municipal Airport. Therefore, aircraft noise generated from the two closest airports would not expose people residing or working on the project site to excessive noise levels due to the proximity of a public airport. Given that the proposed project does not contain outdoor sensitive receptors and the City defined levels between 60 and 65 dBA CNEL as conditionally acceptable with the incorporation of an HVAC system allowing a windows- closed condition and standard building construction, the noise impacts related to airport noise would be less than significant, and no mitigation is required.

Project Land Use Compatibility. The proposed project's land use compatibility is based on the City's exterior and interior noise standards established in the Noise Element of the City's General Plan. The City has an exterior noise standard for multifamily residences of 60 dBA CNEL and an interior noise standard of 45 dBA CNEL. While the 60 dBA CNEL is the upper limit for exterior noise, the proposed project's multifamily residences would be exempt from the City's exterior noise standards because the proposed upper floor balconies would be 6 ft in depth or less. An interior noise standard of 45 dBA CNEL with windows closed was used to evaluate potential interior noise impacts.

Table 4.11.L shows the modeled exterior and interior traffic noise levels under the opening year (2022) with project scenario at each modeled on-site receptor. R-1 and R-2 are modeled at the buildings in the southeast corner of the project site, closest to Walker Street and Katella Avenue, respectively. Although the proposed project may be exposed to intermittent noise levels from parking activities at adjacent land uses and events at the Los Alamitos Race Course, the intermittent noise levels would not be high or frequent enough to contribute to the CNEL level. Additionally, Table 4.11.L includes the estimated contribution for the JFTB Los Alamitos Airport of 63 dBA CNEL.

Table 4.11.L: Interior Noise Impact Analysis (dBA CNEL)

Receptor No.	Use	Exterior Traffic Noise Level	Exterior Aircraft Noise Level	Combined Exterior Noise Level	Interior Noise Level	Interior Noise Standard	Exceed Noise Standard?
R-1	Multifamily Residence	60.9	63.0	65.1	41.1	45	No
R-2	Multifamily Residence	60.8	63.0	65.0	41.0	45	No

Source: Compiled by LSA (2020).
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibels

The proposed project would include an HVAC system that would allow for windows and doors to remain closed. Therefore, the interior noise levels were calculated from the exterior noise levels by applying an exterior-to-interior noise level reduction of 24 dBA (USEPA 1978) based on standard construction in Southern California with windows and doors closed. Figure 4.11.1 shows the modeled receptor locations.

Table 4.11.L shows that the modeled traffic noise levels under the opening year (2022) with project scenario at the modeled on-site receptors would not exceed the interior noise standard. As discussed above, the exterior noise standards for the multifamily residences are not applicable because the proposed balconies would be 6 ft in depth or less. Therefore, the proposed uses on the project site would be consistent with the noise land use compatibility standards established by the City. Therefore, the proposed project would result in the development of land uses consistent with the City's noise standards. This impact would be less than significant.

4.11.7 Level of Significance Prior to Mitigation

While the proposed project could potentially result in the generation of increased noise levels in the vicinity of the project during construction and operations, noise levels would remain below the established noise standards and would be less than significant. Additionally, the project would result in less than significant impacts related to ground-borne vibration and noise levels as well as the exposure of people to excessive noise levels within the vicinity of an airport or private airstrip.

4.11.8 Regulatory Compliance Measures and Standard Conditions

4.11.8.1 Regulatory Compliance Measures

The following regulatory compliance measures are applicable to the proposed project.

Regulatory Compliance Measure NOI-1 The construction contractor shall limit all construction-related activities to between the hours 7:00 a.m. and 8:00 p.m. on weekdays and between the hours of 9:00 a.m. and 8:00 p.m. on Saturdays. No construction shall be permitted outside of these hours or on Sundays or a federal holiday.

Regulatory Compliance Measure NOI-2 Mechanical equipment, including air conditioning units in residential, commercial, and industrial zoning districts, shall be enclosed within a structure or completely screened from view from surrounding properties by the use of a fence or wall consistent with Section 3.11.100(b) of the City of Cypress (City) Municipal Code. Additionally, prior to the issuance of building permits, the Applicant/ Developer shall demonstrate, to the satisfaction of the City Director of Community Development, or designee, that on-site stationary noise sources, such as air conditioners, shall not exceed City noise standards as stated within the City's Municipal Code Sections 13-68 and 13-69.

4.11.8.2 Standard Conditions

The following standard conditions are applicable to the proposed project.

Standard Condition NOI-1 Prior to the issuance of a grading permit, the construction contractor shall demonstrate, to the satisfaction of the City of Cypress Director of Community Development, or designee, the following:

- Construction contracts shall specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other State required noise attenuation devices.
- Construction noise reduction methods such as shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and use of electric air compressors and similar power tools, rather than diesel equipment, shall be used where feasible.
- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from noise-sensitive receptors.
- All construction entrances shall clearly post construction hours, allowable workdays, and the phone number of the job superintendent. This will allow surrounding owners and residents to contact the job superintendent with concerns. If the developer receives a noise related complaint, appropriate corrective actions shall be implemented and a report taken

indicating the action with a copy of the report provided to the reporting party upon request.

4.11.9 Level of Significance after Mitigation

The proposed project would not result in any potentially significant impacts related to noise and vibration; therefore, no mitigation measures are necessary.

4.11.10 Cumulative Impacts

As defined in the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects. A cumulative noise or vibration impact would occur if multiple sources of noise and vibration combine to create impacts in close proximity to a sensitive receptor. Therefore, the cumulative area for noise and vibration impacts is the project site and any sensitive receptors in the immediately surrounding area.

Less Than Significant Impact.

Construction Noise. Construction activities associated with the proposed project and other construction projects in the area may overlap, resulting in construction noise in the area. However, construction noise impacts primarily affect the areas immediately adjacent to each construction site. Construction noise for the proposed project was determined to be less than significant with the implementation of Regulatory Compliance Measure NOI-1, which requires compliance with the construction hour restrictions specified in the City's Municipal Code. Additionally, with the implementation of Standard Condition NOI-1, noise levels generated would be minimized. Cumulative development in the vicinity of the project site could result in elevated construction noise levels at sensitive receptors in the area surrounding the project site. However, each City project would be required to comply with the applicable City Municipal Code limitations on construction. Therefore, cumulative construction noise impacts would be less than significant with the implementation of Regulatory Compliance Measure NOI-1 and Standard Condition NOI-1.

Operational Stationary Source Noise. Long-term stationary noise sources associated with the development of the proposed project, combined with other cumulative projects, could cause local noise level increases. Noise levels associated with the proposed project and related projects together could result in higher noise levels than considered separately. As previously described, the proposed project would be required to adhere to Regulatory Compliance Measure NOI-2, which would ensure that on-site noise sources associated with the proposed project would not exceed any applicable noise standards. Additionally, each of the related projects would be required to comply with the City noise level standards and include noise reduction measures if standards are exceeded. Therefore, cumulative noise impacts from stationary noise sources would be less than significant with the implementation of Regulatory Compliance Measure NOI-2.

Operational Traffic Source Noise Impacts. According to the United States Environmental Protection Agency (USEPA), cumulative noise impacts represent the combined and incremental effects of human activities that accumulate over time. While the incremental impacts may be insignificant by themselves, the combined effect may result in a significant impact. Conversely, although there may

be a significant noise increase due to the proposed project in combination with other related projects (combined effects), it must also be demonstrated that the project has an incremental effect. In other words, a significant portion of the noise increase must be due to the proposed project.

Cumulative noise impacts would occur as a result of increased traffic volumes on local roadways due to future growth in the vicinity of the project site. A project's contribution to a cumulative traffic noise increase could be considered significant when the combined effect exceeds the perception level (i.e., auditory level increase) threshold. A cumulative significant impact would occur when the proposed project and related projects create a barely perceptible noise level increase of 3 dBA.

The Traffic Operations Assessment (Ganddini 2020 [Appendix K of this Draft EIR]) prepared for the proposed project includes a cumulative analysis of traffic impacts under the project opening year (2022) conditions, based on all of the related projects identified in Table 4.A, in Chapter 4.0, Existing Setting, Environmental Analysis, Impacts, and Mitigation Measures, of this Draft EIR. Trip generation estimates for the related projects were obtained from the available approved traffic studies or from calculations based on applicable Institute of Transportation Engineers' (ITE) trip generation rates. Table 3 of the Traffic Operations Assessment summarizes the list of related projects and their respective trip generation estimates. Trip distribution for the related projects is based on the available pending and approved additional development projects in the cities of Cypress and Los Alamitos.

The information in that cumulative traffic analysis was used to determine the "No Project" cumulative baseline for analyzing the proposed project's traffic noise impacts in 2022, as shown in Table 4.11.J. Table 4.11.J further shows that project-related traffic would result in small (0.1 dBA or less) noise level increases along roadway segments other than Vessels Circle in the vicinity of the project site under the project opening year (2022) condition. The land uses surrounding Vessels Circle are not subject to exterior noise standards. Therefore, none of the roadway segments in the vicinity of the project site would experience a substantial noise level increase greater than the applicable noise thresholds, and the proposed project would not have a cumulatively significant traffic noise impact.

4.12 POPULATION AND HOUSING

This section describes the existing population and housing characteristics in both the City of Cypress (City) and the County of Orange (County) and evaluates the potential impacts of the Cypress City Center Project (proposed project) on population and housing growth. This section is based on sources of demographic information provided by various agencies, including the Southern California Association of Governments (SCAG), the Cypress General Plan's Housing Element (2013), the California Department of Finance, and the United States Census Bureau.

4.12.1 Methodology

City and County demographic information were used to describe the existing population and housing characteristics in the City and County. SCAG projections for these topics were identified for the existing conditions and project buildout. City goals and policies regarding population and housing were used to evaluate potential impacts that could result from implementation of the proposed project.

4.12.2 Existing Environmental Setting

4.12.2.1 Population and Housing Trends in the City and County

The City is characterized by urban areas, including single-family and multi-family residential uses and concentrations of retail, office, and industrial uses.

In its existing condition, the approximately 7-acre project site is characterized by a paved parking lot, with existing light poles and various electrical utility boxed and lines, and therefore, does not contain any population or housing.

SCAG, the regional planning agency for the six-county Southern California region that includes Los Angeles, Orange, Riverside, San Bernardino, Ventura, and Imperial Counties, is responsible for preparing a regional growth forecast in conjunction with its efforts to prepare a Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for its regional planning area. The SCAG RTP/SCS Growth Forecast is meant to provide a common foundation for regional and local planning, policymaking, and infrastructure provision within the SCAG region. These projections are used as a reference point for discussing population and housing growth throughout this section.

The growth forecast for the City and County in the SCAG RTP/SCS Growth Forecast is provided below in Table 4.12.A. These projections are used as a reference point for discussing population and housing growth throughout this section.

4.12.2.2 Population

As shown in Table 4.12.A, according to the SCAG RTP/SCS Growth Forecast, the City's population was estimated to grow by approximately 3.4 percent (approximately 0.01 percent per year) between 2016 and 2045. The County was estimated to experience a higher population growth rate of approximately 11.2 percent (approximately 0.37 percent per year) increase between 2016 and 2045.

Table 4.12.A: 2020 SCAG Population and Housing Forecasts (2016–2045)

	2016	2045	2016–2045 Increase	% Change 2016–2045
Total Population				
City of Cypress	49,600	51,300	1,700	3.4%
Orange County	3,180,000	3,535,000	355,000	11.2%
Total Households				
City of Cypress	15,800	16,600	800	5.1%
Orange County	1,025,000	1,154,000	129,000	12.6%

Southern California Association of Governments (SCAG). 2020. *2020–2045 RTP/SCS Final Demographics and Growth Forecast*. Website: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growth-forecast.pdf?1606001579 (accessed December 3, 2020).
RTP/SCS = Regional Transportation Plan/Sustainable Communities Strategy
SCAG = Southern California Association of Governments

According to the State of California Department of Finance population estimates, the City's population in January 2020 was 49,272.[1] Therefore, the City's population growth between 2016 and 2020 (-0.7 percent) appears to be well below the straight-line growth forecast by SCAG for that period (0.5 percent).

4.12.2.3 Age Characteristics

A city's age distribution often shapes its housing demand because different age groups prefer different types of housing. According to the City of Cypress Housing Element, the City's population is aging. Table 4.12.B, below provides a comparison of the City's and County's population by age group using data from the 2014–2018 American Community Survey (ACS) 5-year estimate. According to the ACS data, the City's median age is 41.7 years, which remains unchanged from the 2013–2017 ACS 5-year estimate.[2] This increase in median age is consistent with County, State, and national trends.

As shown in Table 4.12.B, the City and County have similar proportions of residents under the age of 18 (22.2 percent and 22.5 percent, respectively). The City has a lower percentage of residents between the ages of 18 and 24 years (8.8 percent and 9.5 percent, respectively) and the ages of 25 and 44 (23.8 percent, compared to 27.5 percent for the County). The City has a higher percentage of residents between the ages of 45 and 64 (30.4 percent, compared to 26.6 percent for the County) and a slightly higher percentage of residents older than age 65 (14.9 percent, compared to 13.9 percent for the County) than the County. Approximately 15 percent of Cypress residents are over age 65, an approximately 2 percent increase compared to the 2008–2012 ACS 5-year estimate.

[1] California Department of Finance. E-5 Population and Housing Estimates for Cities Counties, and the State 2011–2020 with 2010 Census Benchmark. Website: http://dof.ca.gov/Forecasting/Demographics/Estimates/e-5/ (accessed November 12, 2020).

[2] United States Census Bureau. 2014-2018 American Community Survey 2018 5-Year Estimate Table S0101. Website: https://data.census.gov/cedsci/table?q=S0101&g=0500000US06059_1600000US0617750&tid=ACSST5Y2018.S0101&hidePreview=true (accessed November 12, 2020).

Table 4.12.B: City of Cypress and Orange County Age Characteristics (2014–2018)

Age Group	City of Cypress		Orange County	
	Persons	Percentage	Persons	Percentage
Under 18 Years	10,883	22.2%	711,188	22.5%
18 to 24 Years	4,292	8.8%	301,482	9.5%
25 to 44 Years	11,628	23.8%	869,040	27.5%
45 to 64 Years	14,878	30.4%	841,984	26.6%
65 and Over	7,274	14.9%	440,488	13.9%
Total	48,955	100%	3,164,182	100%
Median Age	41.7		37.8	

Source: United States Census Bureau. 2014-2018 American Community Survey 2018 5-Year Estimate Table S0101. Website: https://data.census.gov/cedsci/table?q=S0101&g=0500000US06059_1600000US0617750&tid=ACSST5Y2018.S0101&hidePreview=true (accessed November 12, 2020)

Households.[1] As shown in Table 4.12.A, the City is anticipated to experience an approximately 5.1 percent (approximately 0.2 percent per year) increase in households between 2016 and 2045. The County was forecast to experience an approximately 12.6 percent (approximately 0.4 percent per year) increase in households between 2016 and 2045. By forecasting a greater percentage of household growth than population growth, the SCAG growth forecast projects a decrease in the average household size in both the City and the County in coming years.

4.12.3 Regulatory Setting

4.12.3.1 Federal Regulations

There are no federal regulations applicable to the proposed project.

4.12.3.2 State Regulations

There are no State regulations applicable to the proposed project.

4.12.3.3 Regional Regulations

Southern California Association of Governments. As the designated metropolitan planning organization (MPO)[2] for the six-county subregion that includes Orange County, SCAG prepares several plans to address regional growth, including the RTP/SCS. The most recent regional growth forecast undertaken by SCAG addresses the 2045 planning horizon. SCAG is mandated by federal and State law to research and draw up plans for transportation, growth management, hazardous waste management, and a regional growth forecast that is the foundation for these plans and regional air quality plans developed by the South Coast Air Quality Management District (SCAQMD). SCAG prepares several plans to address regional growth, including the Regional Comprehensive Plan

[1] The Southern California Association of Governments forecasts "households" rather than housing units. As defined by the United States Census Bureau, "households" are equivalent to occupied housing units.

[2] An MPO is a federally mandated and federally funded transportation policymaking organization that is made up of representatives from local government and governmental transportation authorities. In 1962, the United States Congress passed legislation that required the formation of an MPO for any urbanized area with a population greater than 50,000.

and Guide, Regional Housing Needs Assessment (RHNA), the Regional Transportation Plan (RTP), the Regional Transportation Improvement Program (RTIP), and the annual State of the Region reports to measure progress toward achieving regional planning goals and policies.

Regional Transportation Plan/Sustainable Communities Strategy. The 2020–2045 RTP/SCS (Connect SoCal) was adopted on September 3, 2020. The RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. Connect SoCal takes into account demographic and economic changes that have occurred since the adoption of the 2016–2040 RTP/SCS, including a declining birth rate, an aging population, and domestic outmigration. The RTP/SCS charts a course for closely integrating land use and transportation so that the region can grow smartly and sustainably. The long-term vision will address regional transportation and land use challenges and opportunities.

The RTP/SCS includes:

- Visions, policies, and performance measures;
- Forecasts (e.g., population, households, employment, land use, and housing needs);
- A financial plan;
- A list of projects (to be initiated and/or completed by 2045); and
- An analysis of priority focus areas (e.g., goods movement and active transportation).

Regional Growth Forecast. The regional growth forecasts undertaken by SCAG were developed to identify the growth anticipated to occur between 2016 and 2045 in each of the cities and counties within the SCAG region. The 2020–2045 RTP/SCS Final Growth Forecasts were adopted in conjunction with Connect SoCal on September 3, 2020. The projected growth in population, household, and employment is the data relied upon during development of SCAG's RTP, SCS, and the RHNA. Consistency with the growth forecast at the subregional level is one criterion that SCAG uses in exercising its federal mandate to review "regionally significant" development projects for conformity with regional plans.

Regional Housing Needs Assessment. Local jurisdictions are required by State law (Government Code Section 65580 et seq.) to plan for their fair share of projected housing construction needs in their region. Housing unit construction goals are set by the State Department of Housing and Community Development (HCD) and allocated to cities through regional planning agencies such as SCAG. This is called the RHNA. Future housing need refers to the proportion of the region's future housing needs allocated to a community. Each jurisdiction's future housing need is calculated in terms of four factors: (1) the number of units needed to accommodate forecast global household growth; (2) the number of units needed to replace demolition due to attrition in the housing stock (i.e., fire damage, obsolescence, redevelopment, and conversion to non-housing uses); (3) maintenance of an ideal vacancy rate for a well-functioning housing market; and (4) an adjustment to avoid an overconcentration of lower-income households in any one jurisdiction.

The RHNA prepared by SCAG defines the housing unit construction goals for the region. The City's fair share for the planning period between January 1, 2014, and October 1, 2021 (the last adopted RHNA period) was established by SCAG at 308 units. The RHNA target number was based on

projected household growth and the resulting need for construction of additional housing units allocated over a 5- to 7-year planning period (2014–2021). This 308-unit share was divided into the following income groups according to median family income (MFI) as shown in Table 4.12.C, below:

Table 4.12.C: City of Cypress Regional Housing Need Allocation (2014–2021)

Income Level	Percent of Area MFI	No. of Units
Very Low	0–50%	71
Low	51–80%	50
Moderate	81–120%	56
Above Moderate	>120%	131

Source: City of Cypress 2014–2021 Housing Element Technical Report (2013), Table 2-25; SCAG Regional Housing Needs Assessment 2014–2021.
MFI = median family income

4.12.3.4 Local Regulations

City of Cypress Housing Element. The Housing Element is required by California State law to be a component of every city's General Plan because housing needs are recognized as a statewide concern. As such, the Housing Element of a jurisdiction's General Plan is the only element that is subject to approval by the State. Pursuant to State law, the Housing Element must identify the City's housing needs, the sites that can accommodate these needs, and the policies and programs to assure that the housing units necessary to meet these needs can be provided. The primary goal of the Housing Element is to provide a range of housing opportunities for all income groups.

In August 2013, the 2014–2021 Housing Element was adopted as a guide for housing within the City of Cypress. The Housing Element provides an indication of the need for housing in the community in terms of housing affordability, availability, adequacy, and accessibility. The Housing Element also provides a strategy to address housing needs and identifies a series of specific housing programs to meet community needs. The following goals and policies are found in the City's Housing Element and are applicable to the proposed project:

Goal HOU-3: Encourage the provision of a wide range of housing by location, type of unit, and price to meet the existing and future needs of Cypress residents. Establish a balanced approach to meeting housing needs of both renter and owner households.

Policy HOU-3.6: Encourage use of sustainable and green building design in new and existing housing.

Goal HOU-4: Ensure the provision of adequate and appropriate housing sites through appropriate land use, zoning, and specific plan designations to accommodate the City's share of regional housing needs.

Policy HOU-6.3: Encourage the provision of adequate housing to meet the needs of families of all sizes.

4.12.4 Thresholds of Significance

The thresholds for population and housing impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines* and the City's *Initial Study/Environmental Checklist*. The proposed project may be deemed to have a significant impact with respect to population and housing if it would:

Threshold 4.12.1: **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)?**

Threshold 4.12.2: **Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

4.12.5 Project Impacts

Threshold 4.12.1: **Would the project 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)?**

4.12.5.1 Direct Growth

Less Than Significant Impact. The proposed project includes a multi-family residential development consisting of 135 dwelling units. The proposed development would include two types of multi-family units. 56 two-story condominiums in four buildings in the center portion of the project site and 79 three-story row townhomes located throughout the outer portions of the project site. According to the 2010 Census, the average household size in the City of Cypress was 3.02 persons per household. Based on that estimate, the proposed 135 multi-family dwelling units would generate approximately 408 new residents.

The Cypress Town Center and Commons Specific Plan 2.0 is the regulatory plan that designates the zoning for the project site. The project site's zoning designation was amended to "PC (Planned Community)" with the approval of the Cypress Town Center and Commons Specific Plan 2.0 ballot measure. Consistent with this zoning designation, the Specific Plan governs the permitted uses and development standards associated with the project site. The project site's General Plan land use designation was amended to "Specific Plan Area" with the approval of the Cypress Town Center and Commons Specific Plan 2.0 ballot measure. The project does not propose any amendments to the City's General Plan or Specific Plan.

As shown in Table 4.12.A, SCAG projects that the City of Cypress' population will increase by 1,700 from 2016 (49,600 persons) to 2045 (51,300 persons) and that the number of households will increase by 800 from 2016 (15,800 households) to 2045 (16,600 households). Because the Specific Plan had already been approved by Cypress voters by the time SCAG developed its growth forecast, the proposed project's population and housing increases (408 new residents and 135 new dwelling units) have already been included in the 2020–2045 RTP/SCS Final Growth Forecasts. The estimated increase in population from the proposed project accounts for 24 percent of the City's projected

population growth from 2016 to 2045 and 16.9 percent of the City's projected household growth from 2016 to 2045.

The City's estimated population was 49,272 in January 2020 according to the Department of Finance population estimates. As such, the City's existing estimated population appears to be tracking below the SCAG projection. The addition of 408 residents represents an increase of approximately 0.83 percent over existing conditions as of January 2020. Additionally, the estimated number of households in Cypress was 16,631 in January 2020 according to Department of Finance housing estimates, which slightly exceeds the SCAG projection of 16,600 households by 2045. The additional 135 units represent an increase of approximately 0.81 percent over existing conditions as of January 2020. The increases in population and housing resulting from the proposed project would be less than significant because they have already been accounted for in SCAG's growth forecast and would, therefore, not represent a substantial unplanned increase in population.

Further, it should be noted that SCAG's Regional Council adopted the 6th cycle RHNA methodology on March 5, 2020. With the adoption of the Connect SoCal plan on September 3, 2020, SCAG distributed the draft RHNA Allocation to local jurisdictions on September 4, 2020.[1] SCAG's Final RHNA Allocation Methodology, which is designed to allocate the final regional determination from HCD of 1,341,827 housing units by income categories into 197 local jurisdictions in the region was approved by the SCAG Regional Council at its meeting on March 5, 2020. According to the RHNA Draft Allocations sent on September 4, 2020, the City of Cypress has a total estimated RHNA of 3,927 units (1,147 Very Low Income, 656 Low Income, 622 Moderate Income, and 1,502 Above Moderate Income).[2] Therefore, the total RHNA for the City of Cypress would be substantially larger than the projected housing growth included in the Connect SoCal plan growth forecasts that indicate the City's housing is projected to increase by 800 units from 2016 to 2045.[3] The market-rate housing units included in the proposed project would help the City meet the need for the Above Moderate Income units included in the 6th cycle RHNA allocation. Because there is a need for additional housing over SCAG projections because the City is required by State law (Government Code Section 65580, et seq.) to plan for its fair share of the projected housing construction needs in the City, the population growth as a result of the proposed project would not constitute substantial unplanned population growth in the area.

For all of these reasons, the proposed project would not directly induce substantial unplanned population growth. Therefore, the proposed project's direct impact on population growth would be less than significant and no mitigation is required.

---

1 SCAG. 2020b. Regional Housing Needs Assessment (RHNA). Website: https://scag.ca.gov/rhna (accessed November 12, 2020).

2 SCAG. 2020c. SCAG 6th Cycle Draft RHNA Allocation Based on Final RHNA Methodology and Final Connect SoCal. Website: https://scag.ca.gov/sites/main/files/file-attachments/rhna-draft-allocations-090320-updated.pdf?1602188695 (accessed November 12, 2020).

3 SCAG. 2020a. Current Context, Demographics and Growth Forecast Technical Report: Adopted on September 3, 2020.

4.12.5.2 Indirect Growth

Less Than Significant Impact. The proposed project is expected to only include residential uses on site, and as such would not develop commercial/retail establishments that would substantially increase employment in the City. Therefore, the proposed project would not indirectly induce population growth related to the inclusion of commercial/retail uses.

The proposed project would not propose new roadways but would extend infrastructure (e.g., water facilities, sewer facilities, and energy services) to and within the project site. However, this infrastructure would not induce additional population growth because it would only serve the proposed project's residents and employees and would not provide additional infrastructure capacity for other projects. Therefore, the development of the proposed project would not indirectly induce substantial population growth, and indirect impacts would be less than significant. No mitigation is required.

Threshold 4.12.2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. In its existing condition, the project site is currently a paved parking lot and therefore, does not contain any population or housing uses. The proposed project would not displace any existing housing or populations at the project site. Therefore, there would be no impact related to the displacement of substantial numbers of existing people or housing. No mitigation is required.

4.12.6 Level of Significant Prior to Mitigation

The proposed project would result in less than significant impacts related to population and housing.

4.12.7 Regulatory Compliance Measures and Mitigation Measures

No regulatory compliance measures or mitigation measures are required.

4.12.8 Level of Significance after Mitigation

The proposed project would result in less than significant impacts related to population and housing.

4.12.9 Cumulative Impacts

The purpose of this section is to evaluate any additional incremental impact that the proposed project is likely to cause over and above the combined impacts of recently approved and proposed projects in the City. The impact area used to assess potential cumulative population and housing impacts is the City of Cypress because the proposed project would affect population, housing, and employment within the City. Implementation of the proposed project in conjunction with the 13 related projects identified in Table 4.A, Summary of Related Projects, in Chapter 4.0, Existing Setting, Environmental Analysis, Impacts, and Mitigation Measures, would contribute to the population and housing growth in the project vicinity. The related projects would include 541 residential units that

could be constructed in several cities within Orange County, including 380 residential units in the City of Cypress. According to the 2010 Census, the average household size in Orange County was 2.99 persons (which is similar to the City of Cypress' average household size of 3.02). Based on the County's average household size and an average of 1 person per bed for the assisted living facility included in the Barton Place Mixed Use Project (Westmont). The combined construction of the related residential units would yield a total of 1,339 new County residents. Construction of the proposed project and the rated projects would result in a cumulative population increase of 1,747 new County residents (408 residents [proposed project] + 1,339 residents [related projects]).

The addition of 1,747 new residents would represent a small fraction (0.49 percent) of SCAG's forecasted County increase of 355,000 residents between 2016 and 2045 as shown in Table 4.12.A. However, if the proposed project and all 380 of the related residential units in the City of Cypress were constructed, the cumulative population increase of 1,318 residents in the City of Cypress (408 residents [proposed project] + 910 residents [related Cypress projects]) would remain below the City's projected population increase of 1,700 between 2016 and 2045 as shown in Table 4.12.A utilizing the 2020–2045 RTP/SCS Growth Forecasts.

Additionally, as discussed above, According to the RHNA Draft Allocations sent on September 4, 2020, the City of Cypress has a total estimated RHNA of 3,927 units (1,147 Very Low Income, 656 Low Income, 622 Moderate Income, and 1,502 Above Moderate Income).[1] Therefore, the total RHNA for the City of Cypress would be substantially larger than the projected housing growth included in the Connect SoCal plan growth forecasts that indicate the City's housing is projected to grow 800 units from 2016 to 2045.[2] The housing units included in the proposed project and related projects would help the City meet the need for the 3,927 units included in the 6th Cycle RHNA allocation. Because there is a need for additional housing over SCAG projections because the City is required by State law (Government Code Section 65580 et seq.) to plan for its fair share of projected housing construction needs in its region, the population growth as a result of the proposed project would not constitute substantial unplanned population growth in the area. The related projects include a variety of residential, commercial, industrial, and recreation land uses. Some of the related projects may include the installation or extension of roads or infrastructure. However, it is expected that those infrastructure improvements would only serve the applicable related projects. Therefore, it is not anticipated that the related projects would extend roads or other infrastructure into previously undeveloped areas that would be available for future development, particularly given that the project area is highly urbanized and largely built out.

---

1 SCAG. 2020c. SCAG 6th Cycle Draft RHNA Allocation Based on RC-Approved Final RHNA Methodology. Website: http://www.scag.ca.gov/programs/Documents/RHNA/RHNA-Draft-Allocations-090320-Updated.pdf (accessed November 12, 2020).

2 SCAG. 2020a. Current Context, Demographics and Growth Forecast Technical Report: Adopted on September 3, 2020. Website: https://www.connectsocal.org/Documents/Adopted/0903fConnectSoCal_Demographics-And-Growth-Forecast.pdf (accessed November 12, 2020).

Based on the foregoing, the proposed project in combination with the related projects would not result in significant impact on population and housing because the increase in population that would be generated by the proposed project and the related projects would not result in substantial unplanned population growth. Therefore, the cumulative impact of the proposed project and the related projects on population growth would be less than significant.

4.13 PUBLIC SERVICES

This section describes the public services providers within the jurisdiction of where the Cypress Town Center Project (proposed project) site is located and evaluates the potential impacts of the proposed project on public services. This section is based on multiple data sources, including: written correspondence and coordination with public service providers (Appendix J). This section addresses the following public services (service providers are noted in parentheses):

- Fire Protection (Orange County Fire Authority [OCFA])
- Police Protection (Cypress Police Department [CPD])
- Parks (City of Cypress Recreation and Community Services Department)
- Public Libraries (Orange County Public Libraries [OCPL])
- Schools (Cypress School District [CSD] and Anaheim Union High School District [AUHSD])

4.13.1 Scoping Process

The City of Cypress (City) received four comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this Draft Environmental Impact Report (EIR). No comment letter(s) included comments related to public services.

4.13.2 Methodology

Public service providers were sent a questionnaire requesting information regarding current service provided to the project site and possible constraints or impacts to this service associated with project buildout. The impact analyses are based on responses to the questionnaires and data obtained through public service provider websites. Correspondence with public service providers is included in Appendix J.

4.13.3 Existing Environmental Setting

4.13.3.1 Fire Protection

The Orange County Fire Authority (OCFA) is a Joint Powers Authority that serves the City of Cypress, and is responsible for reducing the loss of lives and property from fire, medical, and environmental emergencies. OCFA provides fire protection, emergency medical and rescue services, hazardous materials inspection and response, and public education activities to its service area of 1,984,758 residents throughout 24 cities in unincorporated Orange County (County). Currently, OCFA has a total of 79 stations, including two specialty stations, located throughout Orange County.[1] OCFA Reserve Firefighters also work as park of ten different stations in Orange County.[2]

---

[1] Orange County Fire Authority (OCFA). 2020a. Fiscal Year 2019–2020 Adopted Budget. Website: https://www.ocfa.org/Uploads/Transparency/OCFA%202019-2020%20Adopted%20Budget.pdf (accessed November 10, 2020)

[2] OCFA. 2020b. Member Cities. Website: https://www.ocfa.org/aboutus/PartnerCities.aspx (accessed November 10, 2020).

OCFA is divided into six primary departments: Business Services, Communications and Public Affairs, Community Risk Reduction, Human Resources, Operations, and Support Services. The Operations Department comprises seven divisions and eleven battalions that provide regional emergency response to all fires, rescues, hazardous materials incidents, wildland fires, aircraft fire and rescue services to John Wayne Airport, and other miscellaneous emergencies.[1]

In addition to being the main provider of fire suppression efforts including wildland firefighting, technical rescue, and airport firefighting services, the OCFA provides a variety of public services including, but not limited to, the following:

- Receiving and dispatching emergency calls;
- Providing public education programs to schools, businesses, community associations, childcare providers, and other members of the community;
- Adopting and enforcing codes and ordinances relative to fire and life safety issues associated with commercial, industrial, and residential development;
- Coordinating the inspection of commercial buildings, investigating all fires, and enforcing the provisions of the Fire Codes regarding hazardous materials regulations;
- Working with developers and jurisdictional planning departments on development projects impacting fire protection services, from conception through planning process approval;
- Conducting California Fire Code Inspections and assisting with reducing risks associated with the use of hazardous materials in the community; and
- Interacting with developers, architects, and engineers to meet the fire protection requirements for buildings and developments by reviewing architectural blue prints, development plans, and proposals submitted in OCFA's jurisdiction.

OCFA Operations Division 7 – Battalion 8 serves the cities of Buena Park, Cypress, La Palma, and Stanton along with portions of several unincorporated communities.[2] The City of Cypress is located within Division 7. As a regional fire agency, OCFA engages in service agreements with other local and regional fire agencies.

Fire Station No. 17 (located at 4991 Cerritos Avenue in Cypress) is the only OCFA fire station located in the City. Fire Station No. 17 is located approximately 1.1 miles northwest of the project site. As noted by the questionnaire response submitted by OCFA, Fire Station No. 17 would be designated as the "first-in" station to the project site in the event of an emergency. Fire Station No. 17 is staffed by six captains, six engineers, six firefighter/paramedics, and six firefighters and is equipped with a fire

[1] OCFA. 2020c. Operations. Website: https://www.ocfa.org/AboutUs/Departments/Operations.aspx (accessed November 10, 2020).

[2] OCFA. 2020d. Operations Division 7. Website: https://www.ocfa.org/AboutUs/Departments/Operations Directory/Division7.aspx (accessed November 10, 2020).

truck and paramedic engine. Fire Station No. 17 was substantially rebuilt and expanded in 2012 with added capacity to accommodate the existing and future fire protection and paramedic needs in the service area and is equipped with the resources to handle fires in five-story buildings.

"Second Call" stations are fire stations that support the "first-in" station. The OCFA has designated Fire Stations No. 46 and 84 as the "second call" stations to support Fire Station No. 17. Fire Station No. 2, located at 7871 Pacific Street in Stanton, is approximately 2.5 miles east of the project site and is staffed by three captains, three engineers, and nine firefighters/paramedics. Fire Station No. 84, located at 12191 Valley View Street in Garden Grove, is approximately 1.5 miles southeast of the project site, is staffed by three captains, three engineers, six firefighters, and six emergency trauma technicians in addition to an ambulance and engine.

In Fiscal Year 2019–2020, OCFA had 1,569 full-time equivalent uniformed and civilian personnel budgeted.[1] OCFA's Standard of Cover for fire services in urban areas, such as the City of Cypress, are listed below. Response times are from receipt of the service call to a unit on scene[2]:

- First-in engines should arrive on scene to medical aids and/or fires within 7 minutes and 20 seconds 80 percent of the time.
- First-in truck companies should arrive on-scene to fires within 12 minutes 80 percent of the time
- First-in paramedic companies should arrive on-scene at all medical aids within 10 minutes 80 percent of the time

In Fiscal Year 2019–2020, OCFA responded to emergency calls within 7 minutes and 56 seconds 80 percent of the time across all service areas.[3]

Although the ratio of firefighters per 10,000 residents increased slightly in the last two fiscal years from 5.33 to 5.80 firefighters for every 10,000 residents, the OCFA has experienced a 74 percent increase in call load over the past 10 years. According to OCFA's 2019 Statistical Annual Report, OCFA responded to over 146,328 total service calls throughout the entirety of its service area; in total, 3,387 calls were responded to citywide. Approximately 108,219 of OCFA responses were related to emergency medical services (EMS); citywide, EMS responses totaled 2,695.[4] According to the OCFA, there are currently no plans for expanded services or facilities near the project area.

4.13.3.2 Police Protection

The Cypress Police Department (CPD) would provide police protection services to the project site. Management and supervision of the CPD is provided by one chief, two captains, two lieutenants, ten sergeants, and a civilian supervisor. Additional CPD workforce includes 55 sworn personnel,

---

1 OCFA. 2020a. Fiscal Year 2019–2020 Adopted Budget. Website: https://www.ocfa.org/Uploads/Transparency/OCFA%202019-2020%20Adopted%20Budget.pdf (accessed November 10, 2020)

2 OCFA. 2020f. Response to Fire Services Questionnaire. Received November 17, 2020.

3 Ibid.

4 OCFA. 2020e. 2019 Statistical Annual Report. Website: https://www.ocfa.org/Uploads/Transparency/OCFA%20Annual%20Report%202019.pdf (accessed November 10, 2020).

23 civilian employees, and numerous volunteers.[1] The current officer-to-resident ratio from 2019 was 1.0 CPD officer per 1,000 residents.

The various services provided by the CPD include a detective bureau, canine teams, a narcotics team, vice and intelligence, motorcycle officers, Personnel & Training, P.A.C.E. program, and S.W.A.T. In addition, the Department has established Community Policing, or Cypress Policing, as the philosophy for providing public safety services.[2] As noted by the questionnaire response submitted by CPD, there are no current plans to increase the number of police officers at the police department. The response also notes that the CPD facilities are anticipated to undergo remodeling and construction for seismic retrofitting. However, the anticipated date of completion is unknown at this time.[3]

The West Cities Police Communications Center (West-Comm) provides police dispatch services for the City of Cypress. West-Comm is a consolidated police dispatch center, formed by a Joint Powers Authority between the cities of Cypress, Los Alamitos, and Seal Beach. Located at the Seal Beach Police Department campus, West-Comm serves a combined population of approximately 90,000 and handles approximately 100,000 calls for service each year.[4]

4.13.3.3 Parks

Section 4.14, Recreation, provided later in this EIR, contains a detailed discussion related to parks and recreational facilities within the City. According to the Conservation/Open Space/Recreation Element of the City's General Plan (2001), there are currently 20 developed public parks distributed throughout the City. This includes 82 acres of park and recreational facilities. However, recent development of 2.9 acres of park space at the former Mackay School site has increased this total to 84.9 acres.[5] A new, approximately 9-acre park at the southeastern corner of Lexington Drive and Cerritos Avenue is currently under construction. This new park is expected to open in fall 2021.[6]

4.13.3.4 Public Libraries

The Orange County Public Library (OCPL) system provides library services to the County, including the City of Cypress. OCPL operates a network of 33 community library branches, including an outlet

---

1 City of Cypress. 2020b. Cypress Police Department Overview. Website: https://www.cypressca.org/government/departments/police/inside-cypress-pd/the-community-we-serve#overview (accessed November 10, 2020).

2 Ibid.

3 Cypress Police Department (CPD). 2020. Response to Police Protection Questionnaire. Received November 16, 2020.

4 City of Cypress. 2020b. Cypress Police Department Overview. Website: https://www.cypressca.org/government/departments/police/inside-cypress-pd/the-community-we-serve#overview (accessed November 10, 2020).

5 City of Cypress. 2017a. Cypress City Council Breaks Ground at Mackay Park. January 23. Website: http://www.cypressca.org/Home/Components/News/News/54/ (accessed November 11, 2020).

6 City of Cypress. 2020a. Cypress Park. Website: https://www.cypressca.org/how-do-i/proposed-park (accessed December 4, 2020).

in the Orangewood Children's Home.[1] The Cypress Library is located at 5331 Orange Avenue, approximately 1.7 miles northeast of the project site. As of 2015, the Cypress Branch Library consisted of a 15,000 square-foot (sf) facility with approximately 88,000 books, CDs, and videos.[2]

As listed in the Public Services and Facilities Element of the Orange County General Plan (2012), the County's standard for library service is 0.2 sf of library space per capita. This per capita standard has been accepted by the Orange County Board of Supervisors as a planning guide for the purpose of projecting the number and location of new libraries needed. Additionally, according to the County's service standards of 0.2 sf of library space per capita and 1.5 books per capita, the Cypress Branch Library has the capacity to accommodate a population of 75,000 and enough books to serve a population of 58,667. The City currently exceeds the County's standards for size and number of books since the City's most current population estimate is 49,272.[3]

4.13.3.5 Public Schools

The provision of education and school facilities in the City is the responsibility of the Cypress School District (CSD), which serves the City's kindergarten through sixth-grade students and the Anaheim Union High School District (AUHSD), which serves the City's junior high and high school districts (grades 7 through 12).

The CSD currently operates six elementary schools; five are located within the City of Cypress and one in the City of La Palma. The CSD's 2019–2020 enrollment was 3,813.[4] Additionally, all of the CSD schools offer on-site privately owned and operated childcare and preschool services.

The AUHSD encompasses 46 square miles and has schools in the cities of Anaheim, Cypress, Buena Park, La Palma, and Stanton. AUHSD is composed of eight high schools, eight junior high schools, and four specialized campuses.[5] In the questionnaire response received by AUHSD regarding School services, it was reported that AUHSD's current enrollment based on Month 3 reporting for the 2020–2021 school year is 30,356 students.[6]

The project site is within attendance boundaries of the following schools: Frank Vessels Elementary (1.5 mile northeast of the site), Lexington Junior High (2.5 miles northwest of the site), and Cypress High School (2.0 miles northeast of the site). Planned improvements for Lexington Junior High School include a new STEAM lab and expanded Physical Education facilities. Planned improvements

---

1 Orange County Public Libraries (OCPL). 2020. About OCPL. Website: http://www.ocpl.org/services/about (accessed November 11, 2020)

2 City of Cypress. 2015. *Barton Place Final Environmental Impact Report.* October

3 California Department of Finance. E-5 Population and Housing Estimates for Cities Counties, and the State 2011–2020 with 2010 Census Benchmark. Website: http://dof.ca.gov/Forecasting/Demographics/Estimates/e-5/ (accessed November 11, 2020).

4 California Department of Education. DataQuest. Enrollment Data 2019–2020. Website: https://dq.cde.ca.gov/dataquest/ (accessed November 11, 2020).

5 Anaheim Union High School District (AUHSD). 2020. Response to School Services Questionnaire. Received November 13, 2020.

6 Ibid.

at Cypress High School will also include a new STEAM lab, new classrooms, Band and Dance classrooms, and the Black Box Theater and Collaboration Lab. [1]

4.13.4 Regulatory Setting

4.13.4.1 Federal Regulations

There are no federal policies related to public services applicable to the proposed project.

4.13.4.2 State Regulations

Assembly Bills 2926, 1600, and 2751. To assist in providing facilities to serve students generated from new development projects, the State enacted Assembly Bill (AB) 2926 in 1986, which allows school districts to collect impact fees from developers of new residential, commercial, and industrial developments. Development impact fees are also referenced in the 1987 Leroy Greene Lease-Purchase Act, which requires school districts to contribute a matching share of the costs for the construction, modernization, or reconstruction of school facilities. Subsequent legislation has modified the fee structure and general guidelines. In 1987, the provisions of AB 2926 have been expanded and revised by AB 1600, which limits the ability of a school district to levy School Fees unless (i) there is a need for the School Fee revenues generated, and (ii) there is a nexus or relationship between the need for School Fee revenues and the type of development project on which the School Fee is imposed. (The requirements of AB 1600 were clarified with the passage in 2006 of AB 2751, which codifies the findings of *Shapell Industries vs. Milpitas Unified School District*.)

Senate Bill 50 and California Education Code Section 17620. Senate Bill 50 and California Education Code Section 17620. Senate Bill (SB) 50, the Leroy F. Greene School Facilities Act of 1998, was signed into law on August 27, 1998. It is a program for funding school facilities largely based on matching funds. The approval of Proposition 1A authorized funds for SB 50 in the amount of $9.2 billion, including grants for construction of new schools and modernization of existing schools. The new construction grant provides funding on a 50/50 State and local match basis. The modernization grant provides funding on a 60/40 State and local match basis. Districts that are unable to provide some or all of the local match requirements and are able to meet financial hardship provisions may be eligible for additional State funding.[2] SB 50 (codified as California Education Code Section 17620) allows school districts to levy a fee, charge, dedication, or other requirement against any development project within its boundaries for the purpose of funding the construction or reconstruction of school facilities. The maximum fee amount that school districts can assess is limited by statutes provided in California Government Code Section 65995. According to the AUHSD, the current Development Impact Fees for projects within the AUHSD's jurisdictional boundaries has increased to $4.08 per square foot of enclosed residential floor space. The fee of $0.61 per square foot of enclosed commercial/industrial floor space has remained unchanged.[3] The fees are collected by the AUHSD and shared equally with the CSD.

---

1 AUHSD. 2020. Response to School Services Questionnaire. Received November 13, 2020.

2 State of California. 2007. State Allocation Board. *Office of Public School Construction, School Facility Program Handbook*. April.

3 AUHSD. 2020. Response to School Services Questionnaire. Received November 13, 2020.

The payment of these fees by a developer serves to mitigate all potential impacts on school facilities that may result from implementation of a project to levels that are less than significant (see California Government Code Section 65996). Stated another way, the provisions of SB 50 provide full and complete mitigation of school facilities impacts, notwithstanding any contrary provisions in the California Environmental Quality Act (CEQA) or other State or local laws. The California Department of Education permits local school districts to increase facility fees subject to Department of Education review and with approval of a nexus study from the school District that demonstrates that costs incurred by the school District for the provision of school facilities and services are higher than Level 1 funding provides. In such an instance, a nexus must be demonstrated in the study between the increase proposed by the local school district and the actual cost of provision of school facilities and services.

California Fire Code. The California Fire Code (CFC) includes regulations for emergency planning, fire service features, fire protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution. Several fire safety requirements include: installation of sprinklers in all high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildlife hazard areas.

Office of Emergency Services. The State of California passed legislation authorizing the Office of Emergency Services to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. Non-compliance with SEMS could result in the State withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster.

4.13.4.3 Regional Regulations

There are no regional policies or regulations related to public services applicable to the proposed project.

4.13.4.4 Local Regulations

City of Cypress Municipal Code. The Cypress Municipal Code includes the following requirement that would apply to the proposed project related to the provision of public services.

- **Section 5-3 (California Fire Code, Adoption, Amendments)** adopts the 2019 CFC, with some amendments and modifications. Generally, the intent of the CFC is to prescribe regulations for the safeguarding of life and property from the hazard of fire and explosion.

4.13.5 Thresholds of Significance

The thresholds for public services impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines* and the City's *Initial Study/Environmental Checklist*. The proposed Project may be deemed to have a significant impact with respect to public services if it would:

Threshold 4.13.1(i): 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 fire protection?

Threshold 4.13.1(ii): **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 police protection?**

Threshold 4.13.1(iii): **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 schools?**

Threshold 4.13.1(iv): **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 parks?**

Threshold 4.13.1(v): **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 other public facilities?**

4.13.6 Project Impacts

Threshold 4.13.1(i): **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 fire protection?**

4.13.6.1 Construction

Less Than Significant Impact. The proposed project would incrementally increase demand for fire services in the City. The proposed project would not result in construction activities that would substantially change the existing fire protection needs in the area. There would be minimal fire

protection needs during the temporary construction activities. Furthermore, short-term construction activities would be limited to the project site and would not significant impact the ability of emergency response vehicles traveling through streets adjacent to the project site. Therefore, construction of the proposed project would result in less than significant impacts related to the provision of fire services.

Additionally, the proposed project would be required to comply with all Occupational Safety and Health Administration (OSHA) requirements regarding site safety during construction. All construction managers and personnel would be trained in emergency response and fire safety, and on-site fire suppression equipment specific to construction activities would be maintained.

As discussed previously, OCFA Fire Station No. 17, which is approximately 1.1 miles northwest of the project site was rebuilt and expanded in 2012 to accommodate existing and planned future needs in its service area. Therefore, the proposed project's potential impact on fire protection services with respect to construction activities would be less than significant.

4.13.6.2 Operation

Less Than Significant Impact. The proposed project would incrementally increase demand for fire protection and emergency service calls. The proposed project would adhere to the development standards described in the City's Municipal Code related to public safety. The proposed project would also be designed to comply with all OCFA requirements, including providing adequate fire flow/structure protection to the project site and providing adequate access for emergency vehicles. Additionally, the proposed project would comply with current editions of the California Building Code, California Fire Code, and related codes.

As stated in Section 4.12, Population and Housing, the proposed project would not induce substantial population growth in the City and therefore would be able to be served by Fire Station No. 17. Written correspondence with the OCFA indicated that OCFA uses a fair share approach to mitigate fire service response impacts and facility/equipment needs. As described in correspondence from OCFA, the Applicant/Developer is requested to enter a Secured Fire Protection Agreement. The Secured Fire Protection Agreement with the OCFA would ensure adequate service to the project site. The OCFA would review and comment on the site plan prior to approval. As part of the review, the OCFA would impose standard conditions of approval, which would ensure all impacts regarding fire protection would be less than significant. Therefore, the proposed project would not require the construction of new fire protection facilities or the upgrade of existing facilities, which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection. Impacts associated with fire protection services would be less than significant.

Threshold 4.13.1(ii): 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 police protection?

4.13.6.3 Construction

Less Than Significant Impact. Short-term construction activities associated with the proposed project would not substantially change the existing police protection needs in the area. There would be minimal police protection needs beyond the existing conditions during temporary construction activities. Therefore, construction of the proposed project would result in less than significant impacts related to the provision of police services; no mitigation is required.

4.13.6.4 Operation

Less Than Significant Impact. The population and housing growth anticipated as a result of the proposed project would incrementally increase demand for police protection and emergency service calls. Although there may be an incremental increase in calls for service related to new residents, the related population growth would not be considered substantial. As stated in Section 4.12, Population and Housing, the proposed project would not induce substantial population growth. Furthermore, in the questionnaire response submitted for Police Protection services, the CPD believes the proposed project will not result in substantial physical impacts associated with the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times, or other performance objectives beyond those identified. In addition, no changes are proposed to roadways that will require police response personnel to modify their existing traffic patterns.[1] Additionally, the CPD would review the site plan during the project approval phase and would impose standard conditions of approval. As stated in the CPD's questionnaire response, the police department believes it should be able to adequately service the area and residents within the complex. Therefore, the proposed project would not require the construction of new police protection facilities or the upgrade of existing facilities in order to maintain acceptable service ratios, response times, or other performance objectives for police protection. Potential impacts related to the provision services for operation of the proposed project would be less than significant, and no mitigation is required.

Threshold 4.13.1(iii): 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 schools?

Less Than Significant Impact. The California Office of Public School Construction has published a program handbook of general student yield factors for elementary, secondary (middle/high school), and unified school districts in California (May 2009), with current data shown in Table 4.13.A, below. These student generation rates were used to estimate the number of elementary and secondary school students that could be generated as a result of project implementation. Based on these generation factors, it is estimated that the proposed project's 135 residential units could generate approximately 68 elementary school students and 27 middle/high school students.

[1] CPD. 2020. Response to Police Protection Questionnaire. Received November 16, 2020.

Table 4.13.A: Projected School Enrollment

Grade Levels	Student Generation Factor	Projected Enrollment
Elementary School	0.5 student/unit	68 students
Middle/High School	0.2 student/unit	27 students
Total	--	**95 students**

Source: State of California, Office of Public School Construction. 2019. School Facility Program Handbook. January. Website: https://www.dgs.ca.gov/-/media/Divisions/OPSC/Services/Guides-and-Resources/SFP_Hdbk_ADA.ashx?la=en&hash=14D0F03EABD3AF437F3F4E2FDE1A602AFDFEE6C2 (accessed November 16, 2020).
Note: The projected enrollment is based on 135 residential units.

The increase in students projected as a result of project implementation would incrementally increase the demand for school facilities. Pursuant to California Education Code Section 17620(a)(1), the governing board of any school district is authorized to levy a fee, charge, dedication, or other requirement against any construction within the boundaries of the district for the purpose of funding the construction or reconstruction of school facilities. The Applicant/Developer would be required to pay such fees to reduce any impacts of new residential development on school services as provided in Section 65995 of the California Government Code (refer to Regulatory Compliance Measure PS-1 below). The fees are collected by the AUHSD and shared equally with the CSD. In addition, as noted in the questionnaire received by AUHSD, there will be a cost impact due to bussing fees for Special Education students associated with the project area.[1]

Pursuant to the provisions of Government Code Section 65996, a project's impact on school facilities is fully mitigated through payment of the requisite school facility development fees current at the time a building permit is issued. According to the AUHSD, the current Development Impact Fees for projects within the AUHSD's jurisdictional boundaries has increased to $4.08 per square foot of enclosed residential floor space. The fee of $0.61 per square foot of enclosed commercial/industrial floor space has remained unchanged.[2] Therefore, with payment of the required fees, as outlined in Regulatory Compliance Measure PS-1, potential impacts to school services and facilities associated with implementation of the proposed project would be less than significant. No mitigation is required.

Threshold 4.13.1(iv): 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 parks?

Less Than Significant Impact. A detailed discussion of the proposed project's impacts to parks and other recreational facilities is provided in Section 4.14, Recreation. As discussed in Section 4.14, the incremental increase in demand for park facilities created by the proposed project's 135 residential units would result in limited use of existing recreation facilities in the project vicinity. However, this increased demand would be offset by the payment of park fees required by Regulatory Compliance

[1] AUHSD. 2020. Response to School Services Questionnaire. Received November 13, 2020.
[2] Ibid.

Measure REC-1, detailed in Section 4.14, Recreation. In addition, the proposed project will include a central open space area that is designed to be used for active and passive recreational uses, which would be available to residents and their guests. The inclusion of this open space area would offset some demand for parks and recreational facilities associated with new residents. Therefore, the proposed project would not result in additional physical impacts associated with the provision of new or physically altered park facilities. Impacts to park and recreation facilities would be less than significant, and no mitigation is required.

Threshold 4.13.1(v): 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 other public facilities?

4.13.6.5 Construction

Less Than Significant Impact. Short-term construction activities would not have any impact on the existing OCPL system because there are no nearby libraries that could be impacted by construction activities and construction activities would not generate demand for library services. It is unlikely that construction workers would increase the demand for library services during construction of the proposed project as most workers would commute directly to and from the project site for the sole purpose of working on the proposed project. Therefore, no new libraries would be required to be developed nor would an existing library need to be expanded to provide adequate public library services during proposed project construction. Therefore, the proposed project's potential impact on public libraries during construction would be less than significant. No mitigation is required.

4.13.6.6 Operation

Less Than Significant Impact. Demand for library services is typically determined based on the size of the resident population. As stated in Section 4.12, Population and Housing, the proposed project would result in 408 new residents, which is not substantial. As of 2015, the Cypress Branch Library consisted of a 15,000 sf facility with approximately 88,000 books, CDs, and videos.[1] According to the County's service standards of 0.2 sf of library space per capita and 1.5 books per capita, the Cypress Branch Library has the capacity to accommodate a population of 75,000 and enough books to serve a population of 58,667. The City currently exceeds the County's standards for size and number of books since the City's most current population estimate is 49,272.[2] Accordingly, the Cypress Branch Library has sufficient capacity to accommodate the additional population growth associated with the proposed project.

As noted above, the OCPL does not use a library demand ratio. However, implementation of the proposed project would generate additional funding for the City and County through the additional

[1] City of Cypress. 2015. *Barton Place Final Environmental Impact Report*. October.

[2] California Department of Finance. E-5 Population and Housing Estimates for Cities Counties, and the State 2011–2020 with 2010 Census Benchmark. Website: http://dof.ca.gov/Forecasting/Demographics/Estimates/e-5/ (accessed November 11, 2020).

property tax revenue the proposed project would generate. These funds could be used for the development of new or expanded library facilities or new library equipment if required. The allocation of additional tax revenues would be at the discretion of City policymakers based on City needs.

For the reasons discussed above, the proposed project would not result in additional physical impacts associated with the provision of 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 measures. The proposed project's impacts would be less than significant; no mitigation is required.

4.13.7 Level of Significance Prior to Mitigation

Impacts related to police and fire services, schools, parks, and libraries would be less than significant prior to mitigation.

4.13.8 Regulatory Compliance Measures and Mitigation Measures

4.13.8.1 Regulatory Compliance Measures

Regulatory Compliance Measure REC-1

Dedication of Parkland and/or Payment of Park Fees. Prior to issuance of any building permits, the Applicant/Developer shall provide proof of compliance with the applicable provisions of Chapter 25 (Subdivisions), Article 6, Park and Recreational Facilities, of the City of Cypress (City) Municipal Code, or other fees as determined by the City, to the Director of the City Community Development Department, or designee.

Regulatory Compliance Measure PS-1

Payment of School Fees. Prior to issuance of any building permits, the Applicant/Developer shall provide proof to the Director of the City of Cypress Community Development Department, or designee, that payment of school fees to the Anaheim Union High School District has been made in compliance with Section 65995 of the California Government Code.

4.13.8.2 Mitigation Measures

No mitigation measures are applicable the proposed project.

4.13.9 Level of Significance after Mitigation

Potential impacts to public services from the proposed project would be addressed through compliance with Regulatory Compliance Measures REC-1 and PS-1 and would be considered less

than significant. The proposed project would have no significant and unavoidable adverse impacts related to public services.

4.13.10 Cumulative Impacts

4.13.10.1 Fire Protection

The geographic area for cumulative analysis of fire protection services is defined as the service territory of Fire Station No. 17. As stated above, Fire Station No. 17 was rebuilt and expanded to accommodate existing and planned future needs in its service area. Although the proposed project would increase calls for service the increase in calls for service is not anticipated to result in an excessive increase in calls for service. Therefore, the proposed project would not have a cumulatively significant impact on the provision of fire services.

Of the 13 related projects, 7 would potentially be served by Fire Station No. 17. Operation of the related project is anticipated to increase the overall demand for fire protection services provided by Fire Station No. 17. As discussed in Section 4.12, Population and Housing, population growth generated by the proposed project in conjunction with related projects would not result in substantial unplanned population growth. Thus, the proposed project and the related project's population increase would be accommodated as part of OCFA's long-term growth planning for fire and other public facilities. Additional demands for fire protection services would be funded by existing funding sources (i.e., property tax and government funding), to which the proposed project and related projects would contribute. Additionally, to address the increase in cumulative regional demand for fire and emergency medical services, the OCFA requests that all developers enter into a secured fire protection agreement with OCFA to ensure the availability of adequate fire protection services. The agreements specify a developer's pro-rata fair-share funding for capital improvements necessary to establish and maintain adequate fire protection facilities, equipment, and personnel. Therefore, the proposed project's contribution to fire protection impacts would not be cumulatively considerable, and no mitigation is required.

4.13.10.2 Police Protection

The geographic area for cumulative analysis of police protection services is defined as the service area for the Cypress Police Department. Although the proposed project would result in an incremental increase in calls for service, it would not result in the need for additional or physically altered police facilities.

Of the 13 related projects, 7 are located within the City of Cypress. As discussed previously population growth generated by the proposed project in conjunction with related projects would not result in substantial unplanned population growth. As such, the proposed project and the related project's demand for police services would be accommodated by the City and the OCSD's long-term growth planning for police protection services and facilities. Additionally, additional demands for OCSD services would be funded by existing funding sources (i.e., property taxes and government funding), to which the proposed project and related projects would contribute. Therefore, the proposed project's contribution to police protection impacts would not be cumulatively considerable, and no mitigation is required.

4.13.10.3 Schools

The geographic area for cumulative analysis of school services includes the school districts that serve the proposed project (CSD and AUHSD). As described above, the proposed project would not result in significant impacts to school facilities. However, a cumulative increase in the demand for school services is anticipated to take place with the development of future residential projects, the proposed project itself, and more specifically, the future household growth within the school boundaries currently servicing the project site. Of the 13 related projects listed in Table 4.A, Summary of Related Projects, in Chapter 4.0, Existing Setting, Environmental Analysis, Impacts, and Mitigation Measures, only two contain residential uses and are within the boundaries of the CSD and the AUHSD. The Assisted Living & Memory Care (Westmont) Facility would not result in the generation of students because the residential uses included in these developments consist of senior housing and assisted living facilities, which would not house any students. The Cypress City Center Project would generate approximately 126 elementary school students and 50 middle/high school students.

As discussed above, the proposed project would generate an increase of 68 elementary school students and 27 middle/high school students. When added to the students generated by the Cypress City Center Project, the cumulative student generation would include 194 elementary school students and 77 middle/high school student for a total of 271 students. As described above, all projects are required to pay full payment of requisite development fees pursuant to California Government Code Section 65995, as described in Regulatory Compliance Measure PS-1. Because the proposed project and all future related projects would be required to pay school fees as required by Regulatory Compliance Measure PS-1, cumulative impacts that the proposed project may have on school services would be less than significant. Therefore, the proposed project's contribution to school impacts would not be cumulatively considerable, and no mitigation is required.

4.13.10.4 Parks

Section 4.14, Recreation, of this Draft EIR, contains a detailed discussion of the proposed project's potential impacts on parks and recreational facilities. As discussed therein, the proposed project and the applicable related projects would not result in a significant cumulative impact to park and recreational facilities and the incremental contribution of the proposed project to a potentially significant impact would not be cumulatively considerable.

4.13.10.5 Public Libraries

The geographic area for the assessment of cumulative impacts pertaining to library services is the City of Cypress. Of the 13 related projects, the two projects involving residential uses would introduce new residents to the library service area, potentially increasing demand for library services. Nonresidential projects are viewed as having relatively limited impacts attributable to occasional and incidental use of library facilities for generalized research purposes. As discussed in Section 4.12, Population and Housing, if the proposed project and all related residential units in the City were constructed, the City's cumulative population increase would be 910 residents. According to the State of California Department of Finance population estimates, the City's population in

January 2020 was 49,272.[1] Therefore, the cumulative population increase would result in a population of 50,182 residents in the City. As discussed above, the OCPL adopted service standards of 0.2 sf of library space per capita and 1.5 books per capita were used to evaluate the potential impacts of the proposed project. Based on this service standard, the Cypress Branch Library has the capacity to accommodate a population of 75,000 and enough books to serve a population of 58,667. Therefore, the Cypress Branch Library has sufficient capacity to accommodate anticipated demand from future projects. Therefore, the proposed project's contribution to library impacts would not be cumulatively considerable.

[1] California Department of Finance. E-5 Population and Housing Estimates for Cities Counties, and the State 2011–2020 with 2010 Census Benchmark. Website: http://dof.ca.gov/Forecasting/Demographics/Estimates/e-5/ (accessed November 12, 2020).

4.14 RECREATION

This section describes the parks and other recreational facilities near the project site and evaluates the potential impacts of the Cypress City Center Project (proposed project) on those facilities. This section also discusses the existing setting of recreational facilities within and near the City of Cypress (City) and sets forth the relevant regulatory requirements that apply to the analysis of the proposed project's impact on recreation facilities. This section is based, in part, on information provided in the Conservation/Open Space/Recreation Element of the City's General Plan and applicable provisions of the City's Municipal Code.

4.14.1 Methodology

Impacts to recreation facilities were assessed based on the potential for the proposed project to generate increased demand on recreational facilities that could result in the deterioration of, or contribute toward substantial accelerated deterioration of, those facilities or require the construction of new facilities or expansion of existing facilities that could have an adverse physical effect on the environment.

For the purposes of this analysis, "recreational facilities" are defined as parks and designated public areas used for active or passive recreation. The Conservation/Open Space/Recreation Element of the City's General Plan states that recreational resources include parks, schools, community facilities, and privately owned recreational facilities. The City's Municipal Code and the Conservation/Open Space/Recreation Element contain requirements for the dedication of land, or the payment of park fees, or both, for recreational purposes in connection with residential development purposes, and an additional 1.5 acres of land per 1,000 residents for such purposes that are made available at K-12 schools through a cooperative arrangement between the City, local school districts, and local park and recreation districts. This results in a total of 4.5 acres of land per 1,000 residents.

4.14.2 Existing Environmental Setting

4.14.2.1 Existing Project Site

The approximately 7-acre site is characterized by a paved parking lot, with existing light poles and various electrical utility boxed and lines. There are no existing public parks or other public recreation uses adjacent to the project site.

4.14.2.2 Existing Recreational Facilities within the City

There are currently a total of 20 developed public parks within the City, which range in size from the approximately 0.17-acre Laurel Park to the 22-acre Oak Knoll Park.[1] According to the Conservation/ Open Space/Recreation Element of the City's General Plan (2001), the City currently has a total supply of approximately 82 acres of park and recreational facilities.[2] Subsequently, the City added 2.9 acres of park space at the former Mackay School site, which increased its park space to

[1] City of Cypress. 2020a. Facility and Park Locations. Website: https://www.cypressca.org/government/departments/recreation-community-services/facility-park-locations (accessed November 11, 2020).

[2] City of Cypress. 2001. General Plan Conservation/Open Space/Recreation Element.

84.9 acres.[1] The City recently approved plans for a new approximately 9-acre sports park at the southeastern corner of Lexington Drive and Cerritos Avenue, with an expected opening date of 2021.[2]

The City classifies parks as community, neighborhood, or mini-facilities based on size. In addition to the City's parks, Cypress residents enjoy access to recreational facilities at 11 K-12 schools, which add approximately 100 additional acres to the City's recreational facilities,[3] and 9 acres of open space and recreational facilities at Cypress Community College. Fees are charged by Cypress Community College for use of its facilities other than its track and tennis courts.

4.14.2.3 Community Parks

Arnold Cypress Park (14.5 acres) and Oak Knoll Park (22 acres) are the two major community parks located in the City.[4] Community parks serve neighborhoods and offer recreational opportunities for large groups. These parks are generally over 10 acres in size and include a variety of facilities, such as active recreational facilities (i.e., athletic fields and group picnic areas). In addition, these large parks often include community centers.

4.14.2.4 Neighborhood Parks

Neighborhood parks are smaller in size than community parks and typically range in size from 3 to 5 acres. Within the City, the 15 neighborhood parks encompass approximately 48 acres. Neighborhood parks are often located adjacent to elementary schools and normally include tot lots, picnic facilities, and a multi-use court.

4.14.2.5 Mini-Parks

Mini-parks are less than 1 acre in size and are usually located near schools or residential developments. The City's three mini-parks serve as playgrounds for children or as a place for people to relax in an urban environment. There are 1.26 acres of mini-parks within the City.[5]

As shown in Table 4.14.A, below, five existing parks and recreational facilities in Cypress are within 1.5 mile of the project site.

The nearest community park is Oak Knoll Park, which is 1.5 mile northeast of the project site. The nearest neighborhood park is Cedar Glen Park (1.3 mile northwest); in addition, Darrell Essex Park is 1.4 mile north of the project site. There are two mini-parks within 1 mile of the project site: Damron Park (1.1 mile north) and Laurel Park (1.1 mile northeast).

---

1 City of Cypress 2020b. Facility & Park Locations: Mackay Park Webpage. Website: https://www.cypressca.org/Home/Components/FacilityDirectory/FacilityDirectory/66/240 (accessed November 11, 2020).

2 City of Cypress. 2019. Cypress Receives Donation of Over 8 Acres for New Park from Los Alamitos Race Course, May 21, 2018. Website: https://www.cypressca.org/Home/Components/News/News/1158/17?arch=1 (accessed November 11, 2020).

3 City of Cypress. 2015. *Barton Place Final Environmental Impact Report*. October.

4 City of Cypress. 2001. General Plan Conservation/Open Space/Recreation Element.

5 Ibid.

Table 4.14.A: Parks and Recreational Facilities in the Vicinity of the Project Site

Name and Address	Distance from Project Site (miles)	Type	Size (acres)	Amenities
Darrell Essex Park 5131 Ball Road	1.4	Neighborhood	2.5	Children's playground equipment, barbeques, picnic shelters, and drinking fountains
Damron Park 5400 Myra Avenue	1.1	Mini	0.5	Children's playground equipment
Laurel Park 5902 Cathy Avenue	1.1	Mini	0.2	Children's playground equipment
Cedar Glen Park 10201 Moody Street	1.3	Neighborhood	2.5	Children's playground equipment, basketball court, barbeques, picnic shelters, and drinking fountains
Oak Knoll Park 9600 Graham Street	1.5	Community	22	Baseball field, basketball court, barbeques, exercise course, on-site parking, picnic facilities, playground equipment, restroom, softball field, volleyball court

Source: City of Cypress, Facility and Park Locations (2020a). Website: https://www.cypressca.org/government/departments/recreation-community-services/facility-park-locations/ (accessed November 11, 2020).

4.14.2.6 Regional Parks

Currently, there are no regional parks within the City; however, seven regional park facilities are located in surrounding communities:

- The City of Long Beach operates El Dorado Regional Park approximately 3.3 miles west of the project site. El Dorado Regional Park incorporates approximately 450 total acres. Recreational amenities within the park include an archery range, barbeque and picnic areas, 5 miles of bike paths, a campground, a 100-acre nature center, two stocked fishing lakes, a physical fitness course, and playgrounds for children.

- The County of Orange (County) operates Ralph B. Clark Regional Park, which is located approximately 9.2 miles northeast of the project site, in the City of Buena Park. Ralph B. Clark Regional Park incorporates approximately 104 total acres. Recreational amenities within the park include picnic areas, hiking and biking trails, playgrounds for children, sports fields, baseball and softball diamonds, volleyball courts, tennis courts, an amphitheater, and a lake.

- Heartwell Park is approximately 5.5 miles northwest of the project site, in the City of Long Beach. The park incorporates approximately 123 total acres. Recreational facilities within the park include a stocked fishing pond, bike paths, a physical fitness course, picnic areas, baseball diamonds, athletic fields, tennis courts, basketball courts, and volleyball courts.

- Cerritos Regional Park is approximately 5 miles northwest of the project site, in the City of Cerritos. The park incorporates approximately 84 total acres. Recreational amenities within the park include a swimming pool, a stocked fishing pond, baseball diamonds, a gymnasium, a multipurpose room, and picnic areas.

- Rynerson Park is approximately 5.5 miles northwest of the project site, in the City of Lakewood. The park incorporates approximately 40 total acres. Recreational facilities within the park include bike paths, baseball diamonds, a wildflower meadow, picnic acres, a physical fitness circuit, a 1.5-mile fitness trail, and an amphitheater.

- El Rancho Verde Park and Bicycle Path is approximately 4.2 miles northwest of the project site, in the Cities of La Palma and Buena Park. The park incorporates approximately 5.25 total acres. Recreational facilities within the park include a botanical garden, exercise stations, playgrounds for children, and a 12-mile bike path.

- The Bolsa Chica Wetlands are approximately 8.6 miles south of the project site, in the City of Huntington Beach. The wetlands are an approximately 1,400-acre nature reserve. Recreational amenities surrounding the wetlands include walking trails, guided tours, educational programs, and volunteer programs.

4.14.2.7 Schools

City residents also enjoy access to open space and recreational facilities at 11 K-12 schools, contributing approximately 119 acres to the City's open space and recreation resources.[1] School sites are available for public recreational use after school hours and on weekends.

In addition to these K-12 schools, Cypress Community College contains 93 acres of open space (inclusive of parking) and includes large playing fields, a running track, tennis courts, a swimming pool, and handball courts. These facilities are available for public use during specified hours by reservation. Fees are charged for use of the Cypress Community College facilities with the exception of the track and tennis courts.

4.14.2.8 Community Facilities

The City has a number of community facilities that host many of its recreation and cultural programs. These facilities include the Cypress Community Center, the Cypress Civic Center and the Cypress Senior Center. These facilities provide a multitude of uses to help meet the recreational needs of the City's residents.

4.14.2.9 Other Public Facilities

A portion of one public golf course, the Navy Golf Course, is located within the City of Cypress 1.0 mile southeast of the project site. This 220-acre, 27-hole golf complex is owned by the United States Department of the Navy. Additionally, four other public golf courses are located within 5.0 miles of the proposed project:

- The El Dorado Park Golf Course is approximately 4.0 miles west of the project site, in the City of Long Beach. This golf course includes an 18-hole golf course, occupying approximately 275 total acres. The El Dorado Park Golf Course is open to the public and includes an event center.

[1] City of Cypress. 2001. General Plan Conservation/Open Space/Recreation Element.

- The Heartwell Golf Course is approximately 5.5 miles northwest of the project site, in the City of Long Beach. This golf course includes an 18-hole golf course, occupying approximately 37 total acres. The Heartwell Golf Course is open to the public and includes a restaurant.

- The Recreation Park Golf Course is approximately 7.0 miles southwest of the project site, in the City of Long Beach. This golf course includes an 18-hole golf course, occupying approximately 170 total acres. The Recreation Park Golf Course is open to the public and includes a clubhouse, banquet facility, and garden gazebo.

- The Dad Miller Golf Course is approximately 6.2 miles northeast of the project site, in the City of Anaheim. This golf course includes an 18-hole golf course, occupying approximately 60 total acres. The Dad Miller Golf Course is open to the public and includes a clubhouse and a banquet hall.

4.14.2.10 Private Recreation Facilities

Private athletic clubs in the City also offer recreational facilities, including the approximately 37,500-square-foot (sf) 24 Hour Fitness facility adjacent to the northwestern boundaries of the project site. The majority of these facilities, although privately owned, are open to the public subject to user fees. These private recreational amenities within the City also help meet residents' recreation needs by providing swimming, racquet and court sports, and exercise classes.

Additionally, many of the residential developments and commercial/industrial open space facilities within the City feature recreational amenities, including clubhouses, pools, tennis courts, and other related recreational facilities. Although they are not included in the City's parkland inventory, these facilities complement public recreational amenities.

4.14.3 Regulatory Setting

4.14.3.1 Federal Regulations

There are no federal regulations applicable to the proposed project

4.14.3.2 State Regulations

Quimby Act of 1975. The State Quimby Act (California Government Code Section 66477) allows the legislative body of a city or county to require by ordinance the dedication of land, the payment of an in-lieu park fee, or a combination thereof, for the approval for a final tract or parcel map. In cases where such dedication or park fee is not obtained through a map, they may be imposed when building permits are issued. The following conditions must be met to comply with the Quimby Act:

- The city or county ordinance must include definitive standards for determining the proportion of a subdivision to be dedicated and the amount of any fee to be paid in lieu thereof.

- The legislative body must adopt a general plan containing a recreation element, and any proposed park or recreational facility must be consistent with the principles and standards established in the element.

4.14.3.3 Regional Regulations

There are no regional regulations applicable to the proposed project.

4.14.3.4 Local Regulations

City of Cypress Municipal Code. The City of Cypress Municipal Code Chapter 25, Article 6, Section 25-41, Provision of Park and Recreational Facilities, states that "every subdivider who subdivides land shall dedicate a portion of such land, pay a fee, or do both as set forth in this article for the purpose of providing park and recreational facilities, including recreational community gardening facilities, to help serve the future residents of such subdivision."

Accordingly, Section 25-43 of the Municipal Code establishes a standard of 3.0 acres of land per 1,000 residents for park and recreational purposes, and an additional 1.5 acres of land per 1,000 residents for such purposes that are made available at K-12 schools. This code standard is also consistent with Conservation/Open Space/Recreation Element Policy COSR-6.1, as discussed below.

City of Cypress Conservation/Open Space/Recreation Element. The Conservation/Open Space/ Recreation Element of the City's General Plan describes existing park and recreational facilities within the City, compares the existing acreage of facilities to the standard set forth in the City's Municipal Code (described above) and identifies goals and policies for the provision of parks and recreational facilities.

The following policy in the Conservation/Open Space/Recreation Element applies to the proposed project:

COSR-6.1 Continue to require new developments to provide recreational opportunities for their residents in accordance with the City's park standard, three acres of parkland per 1,000 residents.

4.14.4 Thresholds of Significance

The thresholds for recreation impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines* and the City's *Initial Study/Environmental Checklist*. The proposed project may be deemed to have a significant impact with respect to recreation if it would:

Threshold 4.14.1: **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?**

Threshold 4.14.2: **Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

4.14.5 Project Impacts

Threshold 4.14.1: 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. As described in Section 4.12, Population and Housing, the proposed project includes the construction of a 135-unit multi-family residential development that would add 408 new residents. As described previously, there are five parks and recreational facilities in Cypress that are within 1.5 miles of the project site, as shown in Table 4.14.A, above. Based on proximity, the parks and recreation facilities listed in Table 4.14.A would serve the project site; however, all parks in the City could be affected as residents can use any park or recreation facility throughout the City of Cypress.

As discussed above, Section 25-43 of the City's Municipal Code establishes a standard of 3.0 acres of land per 1,000 residents for park and recreational purposes, and an additional 1.5 acres of land per 1,000 residents for such purposes that are made available at K-12 schools through a cooperative arrangement between the City, local school districts, and local park and recreation districts. This arrangement results in a total of 4.5 acres of land per 1,000 residents. The proposed project would comply with the applicable provisions in Chapter 25, Article 6, Park and Recreational Facilities, of the City's Municipal Code (refer to Regulatory Compliance Measure REC-1), which requires the payment of an in-lieu park fee, the dedication of land for park and recreational purposes, or both, based on a standard of 3.0 acres of land for park and creational purposes for each 1,000 residents. In addition, at the discretion of the City Council, a percentage of the required in-lieu fees may be credited based on the amount of private open space provided within development (Municipal Code Section 25-46, Credit for Private Open Space). If approved, the credit would be no less than 1 percent and no greater than 50 percent of the required in-lieu fee.

As discussed previously, the City has a total supply of approximately 84.9 acres of park and recreation facilities. Based on the City's population estimation from January 2020 of 49,272 residents,[1] and the standard of 3.0 acres for each 1,000 residents in Section 25-43 of the Cypress Municipal Code, the City should optimally have 147.8 acres[2] of park and recreation facilities within its boundaries to serve its existing population. Therefore, the City currently has a deficiency of approximately 62.9 acres (147.8 - 84.9 = 62.9). With the development of the planned approximately 9-acre park, the park deficiency would be reduced to 53.9 acres. The addition of approximately 408 residents to Cypress could incrementally increase usage of City parks and recreation facilities. The proposed project's additional residents would require 1.22 acres of parkland based on the standard of 3.0 acres for each 1,000 residents in the City's Municipal Code Section 25-43.

---

1 California Department of Finance. E-5 Population and Housing Estimates for Cities Counties, and the State 2011–2020 with 2010 Census Benchmark. Website: http://dof.ca.gov/Forecasting/Demographics/Estimates/e-5/ (accessed November 12, 2020).

2 49,272 residents * 3.0 acres / 1,000 residents.

The City will require the Applicant/Developer to pay fees and/or dedicate parkland as identified in Regulatory Compliance Measure REC-1. Therefore, with the payment of in-lieu park fees and/or the dedication of parkland, impacts to recreation requirements would be less than significant. Therefore, the proposed project would not result in a substantial increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of any such facility would occur or be accelerated, and the proposed project's impact would be less than significant. No mitigation is required.

Threshold 4.14.2: 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. The proposed project would include a central large open space area within the paseo-style community that would include a pool and landscaped areas for other active and passive recreation uses. The construction of this open space area is part of the proposed project, and the potential adverse effects associated with the construction and operation of the proposed project, which include this open space area, have been considered throughout the analysis in this EIR and mitigated as appropriate. Therefore, the proposed project does not include any recreational facilities that would have an adverse physical effect on the environment. Additionally, the inclusion of this open space community area would offset some of the demand associated with the new residents. Therefore, the proposed project does not require construction or expansion of existing recreation facilities and would not result in adverse off-site physical effects at those facilities.

As discussed earlier in Section 4.12, Population and Housing, the proposed project's 135 residential units could result in the addition of approximately 408 residents to the City's population. Based on the City's parkland requirement of 3.0 acres per 1,000 residents, the proposed project would increase the demand for parkland in the City by 1.22 acres. As previously mentioned, the Applicant/Developer is required by the City to pay in-lieu park fees (refer to Regulatory Compliance Measure REC-1). Therefore, impacts related to the construction or expansion of recreational facilities is included as part of the proposed project and would be less than significant, and no mitigation is required.

4.14.6 Level of Significance Prior to Mitigation

Prior to mitigation, the proposed project would not result in any significant impacts to parks and recreation resources.

4.14.7 Mitigation Measures

4.14.7.1 Regulatory Compliance Measures

Regulatory Compliance Measure REC-1

Dedication of Parkland and/or Payment of Park Fees. Prior to issuance of any building permits, the Applicant/Developer shall provide proof of compliance with the applicable provisions of Chapter 25 (Subdivisions), Article 6, Park and

Recreational Facilities, of the City of Cypress (City) Municipal Code, or other fees as determined by the City, to the Director of the City Community Development Department, or designee.

4.14.7.2 Mitigation Measures

With adherence to Regulatory Compliance Measure REC-1, the proposed project would result in less than significant impacts related to recreation, and no mitigation measures are required.

4.14.8 Level of Significance after Mitigation

The proposed project would not result in any significant impacts to parks and recreation resources.

4.14.9 Cumulative Impacts

The project site is located within the City and the proposed project is subject to the City's Municipal Code requirement for payment of park fees, the dedication of land for park and recreational purposes, or both. Therefore, for purposes of this analysis, the geographic area for potential cumulative impacts on recreation facilities is the City. The proposed project, in conjunction with the related projects in the City, would increase the City's population (refer to Table 4.A and Figure 4.1, in Chapter 4.0, Existing Setting, Environmental Analysis, Impacts, and Mitigation Measures, for the descriptions and locations of these related projects). However, the proposed project does include a central open space area for active and passive recreational uses, which helps reduce the project demand for off-site recreational facilities. In addition, the Applicant/Developer would pay any required park fees as described in Regulatory Compliance Measure REC-1. Moreover, the applicants for the related projects that involve residential development in the City (Related Projects 1–4) would also be required to either dedicate land and/or pay park fees for the purposes of providing park and recreational facilities consistent with the City's Municipal Code requirements to offset their respective impacts related to parks and recreation.

Therefore, the cumulative impact of the proposed project and the applicable related projects would be less than significant with respect to recreational facilities and, in any event, the proposed project's contribution to a potentially significant cumulative impact on park and recreational facilities would not be cumulatively considerable.

This page intentionally left blank

4.15 TRANSPORTATION

This section analyzes the existing and planned transportation and circulation conditions for the proposed Cypress Town Center Project (proposed project) and the surrounding area, and identifies circulation deficiencies that may result subsequent to the development of the proposed project. The analysis contained in this section is based on the *Cypress Town Center 7-AC Residential Project Traffic Operations Assessment* (Traffic Operations Assessment) (Ganddini Group Inc., November 5, 2020a) and the *Cypress Town Center 7-AC Residential Project Vehicle Miles Traveled Memorandum* (VMT Memorandum) (Ganddini Group Inc., September 16, 2020b), which are provided in Appendix K to this Draft Environmental Impact Report (EIR).

4.15.1 Scoping Process

The City of Cypress (City) received four comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this Draft EIR. Three comment letter(s) included comments related to transportation.

The letter from the City of Los Alamitos asked if there would be site access from Winners Circle to the proposed project. The comment further questioned how traffic patterns would be impacted at the intersection of Walker Street and Katella Avenue. The comment also inquired about the project's potential impact on other projects closer to Katella Avenue.

The letter from the Orange County Transportation Authority (OCTA) indicated that OCTA still requires level of service (LOS) analysis to monitor Congestion Management Program (CMP) Highway System (HS) performance, per the CMP Traffic Impact Analysis Requirements. Such analysis may be submitted to OCTA separately from any CEQA documents. The comment suggests the Katella Avenue and Valley View Street roadways and intersection be analyzed for any potential traffic impacts consistent with the Orange County CMP.

The letter from the California Department of Transportation (Caltrans) suggested discussion or analysis in regard to the direct or indirect increase of VMT on State Highway ramps from the Amazon Facility Project and the proposed project. The comment suggests incorporating designated areas/parking for freight delivery, package and transportation network. The comment also suggested providing adequate wayfinding signage to nearby transit stops within the proposed project. The commenter requests the EIR include discussion regarding the City's multimodal mobility strategies and that the 95 percent queues on the off-ramp or left-turn lane to the on-ramp at the ramp intersection of Route 22 be examined to determine if the project would result in overflow to the adjacent lane.

4.15.2 Methodology

The Traffic Operations Assessment prepared for the project is consistent with the objectives and requirements of the City of Cypress, the City of Los Alamitos, and the *Orange County Congestion Management Program* (CMP) (County of Orange 2019), as well as applicable provisions of the California Environmental Quality Act (CEQA), including disclosure of project deficiencies and impacts in both existing and cumulative horizon years.

The scope of work for the Traffic Operations Assessment, including the project study area, was reviewed and approved by the City's Traffic Engineer prior to the its preparation. Study area locations were selected in consultation with City staff. The study area analyzed in the project Traffic Operations Assessment includes the following five intersections (three intersections in Cypress and two intersections in both Cypress and Los Alamitos):

1. Siboney Street/Katella Avenue (signalized) (Cypress/Los Alamitos)
2. Walker Street/Cerritos Avenue (signalized intersection) (Cypress)
3. Walker Street/Vessels Circle (signalized) (Cypress)
4. Walker Street/Katella Avenue (signalized) (Cypress/Los Alamitos)
5. Valley View Street/Katella Avenue (signalized) (Cypress)

4.15.2.1 Intersection Level of Service Methodologies

In accordance with the requirements of the City of Cypress, the City of Los Alamitos, and the Orange County CMP, signalized intersection operation is analyzed using the Intersection Capacity Utilization (ICU) methodology. The ICU methodology compares the volume-to-capacity (v/c) ratios of conflicting turn movements at an intersection, sums up these critical conflicting v/c ratios for each intersection approach, and determines the overall ICU. Lane capacities of 1,700 vehicles per hour of green time is assumed for the ICU calculations. The Traffic Operations Assessment evaluated the signalized intersections based on the ICU methodology using the PTV Vistro software (Version 6.00-03). The resulting ICU is expressed in terms of level of service (LOS), where LOS A represents free-flow operation and LOS F represents over capacity operation.

The relationship between LOS and the ICU value (i.e., v/c ratio) is as follows.

Level of Service	Volume-to-Capacity (ICU Methodology)
A	≤0.60
B	>0.60 and ≤0.70
C	>0.70 and ≤0.80
D	>0.80 and ≤0.90
E	>0.90 and ≤1.00
F	>1.00

ICU = intersection capacity utilization

4.15.2.2 Vehicle Miles Traveled Analysis

As discussed in further detail in Section 4.15.4.2, State Regulations, according to *State CEQA Guidelines* Section 15064.3(a), project-related transportation impacts are generally best measured by evaluating the project's vehicle miles traveled (VMT). VMT refers to the amount and distance of automobile travel attributable to a project. *State CEQA Guidelines* Section 15064.3(b) sets forth criteria for analyzing transportation impacts, breaking down the methodology based on project type and specifying other criteria for conducting VMT analysis.

For land use projects, VMT exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects located within 0.5 mile of an existing high-quality transit corridor should be considered to have a less than significant impact. A high-quality transit corridor is a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak

commute hours. *State CEQA Guidelines* Section 15064.3(b)(2) addresses VMT associated with transportation projects and states that projects that reduce VMT, such as pedestrian, bicycle, and transit projects, should be presumed to have a less than significant impact. Subdivision (b)(3) of the *State CEQA Guidelines*, Section 15064.3, acknowledges that Lead Agencies may not be able to quantitatively estimate VMT for every project type; in these cases, a qualitative analysis may be used. The regulation goes on to state that Lead Agencies have the discretion to formulate a methodology that would appropriately analyze a project's VMT (*State CEQA Guidelines* Section 15064.3(b)(4)).

At this time, the City has not adopted a methodology to analyze VMT impacts within its jurisdiction. In addition, the City does not currently have thresholds or standards in place for assessing potential VMT impacts. However, a VMT analysis was prepared based on guidance provided in the OPR Technical Advisory[1] using information in the Orange County Transportation Analysis Model (OCTAM). The OPR Technical Advisory notes that VMT is most heavily influenced by three land use types: residential, office, and retail, and provides recommended VMT thresholds for each. Therefore, for purposes of this evaluation the thresholds identified by the OPR Technical Advisory for residential use has been utilized.

The Technical Advisory recommends the following numeric threshold for residential uses…

> *"Residential development that would generate vehicle travel that is 15 or more percent below the existing residential VMT per capita, measured against the region or city, may indicate a less-than-significant transportation impact. In MPO areas, development measured against city VMT per capita (rather than regional VMT per capita) should not cumulatively exceed the population or number of units specified in the SCS for that city because greater-than-planned amounts of development in areas above the region-based threshold would undermine the VMT containment needed to achieve regional targets under SB 375."*

Consistent with OPR recommendations, the appropriate geographic region selected for this analysis is Orange County.

OCTAM is a useful tool to estimate VMT as it considers interaction between different land uses based on socio-economic data such as population, households, and employment. OCTAM is widely used as an appropriate trip-based modeling tool for conducting VMT analysis for land use projects in Orange County.

The VMT analysis for the project has been calculated using the most current version of OCTAM (version 5.0), which was released by the Orange County Transportation Authority (OCTA) in 2020. Consistent with recommendations in the OPR Technical Advisory, when trip-based assessments of project VMT are conducted (similar to those completed for the VMT Memorandum using OCTAM), the focus can be on home-based work trips.[2] Home-based work (HBW) VMT includes all auto vehicle

---

1 Governor's Office of Planning and Research (OPR). 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR Technical Advisory). December.

2 Page 6 of the OPR's Technical Advisory.

trips between home and work for a given traffic analysis zone (TAZ) or group of zones and is then normalized by dividing by the population present in the zone or group of zones.

4.15.2.3 Significance Criteria

The City of Cypress considers LOS D as the upper limit of satisfactory operations for intersections, except at intersections along Valley View Street, Lincoln Avenue, and Katella Avenue. The City has adopted LOS E as the standard for intersections along these three arterials, as they carry a significant amount of traffic. In addition, Valley View Street and Katella Avenue are designated in the Orange County CMP as CMP facilities, and intersections along these roadways must not operate below LOS E.

Based on the City of Cypress standards, a project traffic deficiency occurs at an intersection if the project causes an intersection operating at an acceptable LOS to deteriorate to an unacceptable LOS, or if an intersection is already operating at an unacceptable LOS and the project adds 0.01 or more to the peak-hour ICU.

Based on the City of Los Alamitos standards, a project traffic deficiency occurs at an intersection if the "plus project" LOS is unacceptable and if the addition of project traffic increases the peak hour ICU by 0.01 or greater.

Based on the significance threshold recommended in the OPR Technical Advisory, the proposed project would have a significant VMT impact if its VMT per capita would not be less than 15 percent below the existing residential VMT per capita in the region (in this case, Orange County).

4.15.3 Existing Environmental Setting

4.15.3.1 Existing Circulation System

The project site is located on a 7.0-acre area within the southeast portion of an existing parking lot for the Los Alamitos Race Course. The project site is part of the 15-acre area of the Town Center District of the Cypress Town Center and Commons Specific Plan 2.0. Vehicular access to the project site is currently provided via the existing entryways to the Los Alamitos Race Course, which include the main driveway on Siboney Street, a driveway at the southeastern corner of the site that connects to Costco Way, and a third gated driveway at the northeastern corner of the site that connects to Vessels Circle via the parking lot north of the site.

Key roadways in the vicinity of the project site are as follows:

- **Siboney Street** is a north-south two-lane undivided to six-lane divided roadway in the study area. Siboney Street is not classified in the City of Cypress General Plan Circulation Element (City of Cypress 2001) or the City of Los Alamitos General Plan Mobility and Circulation Element (City of Los Alamitos 2015). Sidewalks are provided on both sides of the street. On-street parking is not permitted.

- **Walker Street** is a north-south four-lane to five-lane divided roadway located east of the project site. According to the City's General Plan Circulation Element, Walker Street is classified as a

Major Arterial. The posted speed limit is 40 miles per hour (mph). Sidewalks are provided on both sides of the street. On-street parking is not permitted.

- **Valley View Street** is a north-south six-lane divided roadway located east of the project site. Valley View Street designated as a Major Arterial in the City's General Plan Circulation Element. Valley View Street is designated in the Orange County CMP as a CMP facility. The posted speed limit is 45 mph. Sidewalks are provided on both sides of the street. On-street parking is not permitted.

- **Cerritos Avenue** is an east-west four-lane to five-lane divided roadway located north of the project site. According to the City's General Plan Circulation Element, Cerritos Avenue is designated as a Primary Arterial. The posted speed limit is 40 mph. Sidewalks and Class II bicycle lanes are provided on both sides of the street. On-street parking is not permitted.

- **Vessels Circle** is a two-lane undivided roadway located east of the project site. Vessels Circle extends in an east-west direction west of Walker Street before making a turn to the north and running in a north-south direction. Vessels Circle is not classified in the City's General Plan Circulation Element. A sidewalk is provided on the north side of the street. On-street parking is not permitted.

- **Katella Avenue** is an east-west six-lane divided roadway located south of the project site. Katella Avenue is designated as a Major Arterial in the City of Cypress General Plan Circulation Element and as a Smart Street in the City of Los Alamitos General Plan Circulation Element. Katella Avenue is designated on the Orange County CMP as a CMP facility. The posted speed limit is 40 to 45 mph. Sidewalks are provided on both sides of the street. On-street parking is not permitted.

Pedestrian Circulation. Sidewalks currently exist on both sides of Siboney Street, Walker Street, Valley View Street, Cerritos Avenue, and Katella Avenue. A sidewalk is currently provided on the north side of Vessels Circle. There are pedestrian crosswalks at two or more approaches of each signalized study area intersection. These facilities provide for pedestrian circulation between the project site and the surrounding areas.

Bicycle Circulation. Walker Street is proposed as a future local bikeway from Cerritos Avenue to Katella Avenue. Cerritos Avenue is currently striped with Class II bike lanes. There are no bicycle lanes on Katella Avenue.

Transit Facilities. Orange County Transportation Authority (OCTA) bus stops are provided at the northeast and southeast corners of Siboney Street/Katella Avenue and the northwest and southwest corners of Walker Street/Katella Avenue (OCTA Route 50). OCTA Route 50 provides transportation to/from the Cities of Orange and Long Beach via Katella Avenue. OCTA Route 50 runs at an approximately 30-minute headway during weekday peak hours. OCTA bus stops are also provided at Valley View Street/Katella Avenue within 1 mile of the project site (OCTA Route 123). OCTA Route 123 provides transportation to/from Buena Park and Sunset Beach via Valley View Street.

4.15.3.2 Existing Traffic Volumes and LOS Analysis

Historic traffic counts were obtained from October 2018 for the study area intersections. The traffic counts were adjusted by a growth rate of 1 percent per year (2 percent total growth) to reflect existing year 2020 conditions prior to the on-going Coronavirus (COVID-19) pandemic.

Because historic traffic counts are not available for Walker Street/Vessels Circle, new counts were conducted at this intersection in May 2020. To estimate pre-pandemic conditions, the traffic volumes were increased by 146 percent in the a.m. peak hour and 58 percent during the p.m. peak hour based on the traffic counts observed at the adjacent intersections (Walker Street/Cerritos Avenue to the north and Walker Street/Katella Avenue to the south) for which historic count data are available.

Table 4.15.A summarizes the results of the existing peak-hour LOS analysis for the study area intersections.

Table 4.15.A: Existing Intersection Level of Service Summary

Intersection		Control	Peak Hour	Existing	
				ICU	LOS
1	Siboney Street/Katella Avenue	Signal	AM	0.470	A
			PM	0.534	A
2	Walker Street/Cerritos Avenue	Signal	AM	0.693	B
			PM	0.743	C
3	Walker Street/Vessels Circle	Signal	AM	0.397	A
			PM	0.334	A
4	Walker Street/Katella Avenue	Signal	AM	0.670	B
			PM	0.700	C
5	Valley View Street/Katella Avenue	Signal	AM	0.737	C
			PM	0.763	C

Source: Traffic Operations Assessment (Ganddini Group Inc., November 2020).
ICU = Intersection Capacity Utilization
LOS = level of service

As shown in Table 4.15.A, all study area intersections currently operate at satisfactory LOS during both peak hours.

4.15.3.3 Existing VMT

Regional HBW VMT for Orange County was calculated for the base (2016) and future (2045) scenarios based on OCTAM output files. The socio-economic data and VMT per capita for the region was calculated as a collection of TAZs (all TAZs located in Orange County) rather than a single TAZ. Baseline (2020) HBW VMT for Orange County was developed by interpolating (using linear interpolation) between base (2016) and future (2045) VMT. The Orange County baseline (2020) residential VMT per capita (population) is summarized in Table 4.15.B.

Table 4.15.B: Baseline 2020 Orange County VMT per Population

Description	Orange County[1]
Population	15,262,828
Residential VMT	280,668,413.2
Residential VMT/Population	18.4

Source: VMT Memorandum (Ganddini Group Inc., November 2020).
[1] Derived using the outputs from the OCTAM 5.0 model.
OCTAM = Orange County Transportation Analysis Model
VMT = vehicle miles traveled

4.15.4 Regulatory Setting

4.15.4.1 Federal Regulations

No federal policies or regulations pertaining to transportation are applicable to the proposed project.

4.15.4.2 State Regulations

Senate Bill 743. On September 27, 2013, Governor Jerry Brown signed Senate Bill (SB) 743 into law and started a process that changes the methodology of a transportation impact analysis as part of CEQA requirements. SB 743 directed the California Office of Planning and Research (OPR) to establish new CEQA guidance for jurisdictions that removes the LOS method, which focuses on automobile vehicle delay and other similar measures of vehicular capacity or traffic congestion, from CEQA transportation analysis. Rather, vehicle miles traveled (VMT), or other measures that promote "the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses," are now to be used as the basis for determining significant transportation impacts in the State.

***State CEQA Guidelines* Section 15064.3, Subdivision (b).** In January 2018, the State of California Office of Planning and Research (OPR) submitted a proposal for comprehensive updates to the *State CEQA Guidelines* to the California Natural Resources Agency. The submittal included proposed updates related to the analysis of greenhouse gas (GHG) emissions, energy, transportation impacts pursuant to SB 743, and wildfires, as well as revisions to Section 15126.2(a) in response to the California Supreme Court's decision in *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal. 4th 369. On December 28, 2018, the updated *State CEQA Guidelines* went into effect.

As part of the update to the *State CEQA Guidelines*, Section 15064.3 was added and codifies that project-related transportation impacts are typically best measured by evaluating the project's VMT. Specifically, subdivision (b) focuses on specific criteria related to transportation analysis and is divided into four subdivisions: (1) land use projects, (2) transportation projects, (3), qualitative analysis, and (4) methodology. Subdivision (b)(1) provides guidance on determining the significance of transportation impacts of land use projects using VMT; projects located within 0.5 mile of high quality transit should be considered to have a less than significant impact. Subdivision (b)(2)

addresses VMT associated with transportation projects and states that projects that reduce VMT, such as pedestrian, bicycle, and transit projects, should be presumed to have a less than significant impact. Subdivision (b)(3) acknowledges that Lead Agencies may not be able to quantitatively estimate VMT for every project type; in these cases, a qualitative analysis may be used. Subdivision (b)(4) stipulates that Lead Agencies have the discretion to formulate a methodology that would appropriately analyze a project's VMT. The provisions of this section were required to be implemented on July 1, 2020.

As discussed above, the City has not adopted a methodology to analyze VMT impacts within its jurisdiction. In addition, the City does not currently have thresholds or standards in place for assessing potential VMT impacts. Absent formal guidelines from the City, a VMT analysis was conducted based on information prepared by the Governor's Office of Planning and Research (OPR) as part of their *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018) (Technical Advisory), which provides guidance for evaluating transportation impacts based on VMT.

Therefore, traffic impacts in this Draft EIR are based on the LOS thresholds as defined in the City's General Plan and those LOS thresholds established in the City of Los Alamitos' General Plan (consistency with a policy addressing the circulation system) and the OPR Technical Advisory (VMT analysis consistent with *State CEQA Guidelines* Section 15064.3, subdivision (b)).

4.15.4.3 Regional Regulations

Orange County Congestion Management Program. The Orange County Transportation Authority (OCTA) is a multimodal transportation agency that began in 1991 with the consolidation of seven separate agencies. OCTA serves Orange County residents and travelers by providing the following: countywide bus and paratransit service; funding support for Metrolink rail service; the 91 Express Lanes; freeway, street, and road improvement projects; individual and company commuting solutions; motorist aid services; and regulation of taxi operations. State law requires that a Congestion Management Program (CMP) be developed, adopted, and updated biennially for every county that includes an urbanized area, and requires that it include every city and the county government within that county. As the Congestion Management Agency for Orange County, OCTA is responsible for implementing the Orange County CMP.

OCTA adopted the CMP in 1991 to reduce traffic congestion and to provide a mechanism for coordinating land use and development decisions in Orange County. Compliance with the CMP requirements ensures a city's eligibility to compete for State gas tax funds for local transportation projects.

Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). On May 7, 2020, SCAG adopted the 2020–2045 RTP/SCS (Connect SoCal). The 2020–2045 RTP/SCS is a long-range planning document that provides a common foundation for regional and local planning, policymaking, and infrastructure goals in the SCAG region. The core vision for the 2020–2045 RTP/SCS is to increase mobility options and achieve a more sustainable growth pattern. Connect SoCal is supported by a combination of transportation and land use strategies that outline how the region can achieve California's greenhouse gas emission reduction goals and federal Clean Air Act requirements. Connect SoCal also projects growth in

employment, population, and households at the regional, county, city, town and neighborhood levels.

4.15.4.4 Local Regulations

City of Cypress General Plan. The Cypress General Plan is the primary source of long-range planning and policy direction that guides growth and preserves the quality of life within the community. The 2001 General Plan is based upon the community's vision for Cypress and expresses the community's long-term goals. The Cypress General Plan is intended to ensure that future projects and improvements are consistent with the community's goals, policies, and objectives.

Circulation Element. The Circulation Element is a general guide for the planning, development, and enhancement of the City of Cypress circulation system, based on existing and anticipated land uses. Most transportation-related plans and programs are established with the goal of maintaining acceptable operating LOS on the City's transportation system. The City of Cypress has adopted LOS D or better as the desired citywide operating standard for most City streets. However, given the influence of regional traffic on Valley View Street, Lincoln Avenue, and Katella Avenue, which are beyond the control of the City of Cypress, LOS E or better has been adopted as the minimum operating Level of Service for street segments and intersections on these arterials. The Circulation Element goals and policies define the City's vision for a balanced, efficient circulation system which incorporate many modes of travel and which allows for the safe movement of people and goods in and around Cypress. Based on the Circulation Element, the local and regional street network is built out in Cypress. Similarly, the bikeway system is generally built out in the project vicinity, with the exception of a planned bike lane on Walker Street south of Cerritos Avenue. This proposed bike lane would connect to the existing bike lane on Walker Street north of Cerritos Avenue.

City of Los Alamitos General Plan. The Los Alamitos General Plan is a policy document designed to guide the City of Los Alamitos in achieving its economic and community development goals. It outlines specific steps to be taken to direct the City of Los Alamitos' land use planning, economic development, image, and overall quality of life. The 2015 General Plan supersedes the 1990 General Plan and has been tailored to meet the issues and needs of the City of Los Alamitos in the present time and foreseeable future. Implementation of the Los Alamitos General Plan will ensure that future projects and improvements are consistent with the community's goals, policies, and objectives.

Circulation Element. The Circulation Element is a policy guide for the planning and development of the City of Los Alamitos, including parameters for the transportation system (roadway network, public transportation, and bicycle facilities), circulation improvements, traffic levels of service, and pedestrian safety. The City of Los Alamitos analyzes the operation of the roadway system in terms of LOS. Similar to the City of Cypress, the City of Los Alamitos considers LOS D as the upper limit of satisfactory operations for intersections, except at intersections along Katella Avenue, where LOS E is acceptable.

4.15.5 Thresholds of Significance

The thresholds for transportation impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines* and the City's *Initial Study/Environmental Checklist*. The proposed project may be deemed to have a significant impact with respect to transportation if it would:

Threshold 4.15.1: **Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?**

Threshold 4.15.2: **Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?**

Threshold 4.15.3: **Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

Threshold 4.15.4: **Result in inadequate emergency access?**

4.15.6 Project Impacts

Threshold 4.15.1: **Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?**

Less Than Significant Impact. The proposed project would be required to comply with General Plan policies addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. The proposed project would also be required to comply with the City's transportation-related goals, policies, and metrics for determining traffic deficiencies and impacts, as well as the *Orange County Congestion Management Program* (CMP) (2019). The project's consistency with these plans is described in detail below.

Table 4.10.B in Section 4.10, Land Use and Planning, of this EIR, provides an evaluation of the proposed project's consistency with relevant goals and policies from the City's General Plan, including those related to transit, roadway, bicycle, and pedestrian facilities. As described in Table 4.10.B, the project would provide paseos and a sidewalk along the interior curb of the on-site private street. Pedestrian connections would provide access to on-site recreation areas, paseos and landscape areas, and parking areas. The pedestrian connections would also provide off-site access to the future development west of the project site, the approved Cypress City Center mixed-use development south of the project site, and the public sidewalk at Vessels Circle. Therefore, the proposed project would be consistent with General Plan Circulation Element Policy CIR-2.8, which encourages the enhancement of the sidewalk environment to encourage pedestrian activities.

A trip generation analysis was conducted to determine the number of trips that would occur following implementation of the proposed project. This was completed in support of an evaluation of the project's consistency with Orange County CMP requirements and the City's General Plan policies with respect to traffic congestion.

The Institute of Transportation Engineers (ITE) *Trip Generation Manual* is a nationally recognized source for estimating site-specific trip generation. The trip generation rates used for the project are based upon data collected by ITE in its *Trip Generation Manual*, 10th Edition, 2017. The ITE trip generation rates for Land Use 220 (Multi-Family Housing [Low-Rise]) have been used.

Table 4.15.C summarizes the trip generation for the proposed project.

Table 4.15.C: Project Trip Generation

Land Use[1]	Quantity	Units[2]	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Generation Rates									
Multi-Family Housing (Low-Rise)		DU	7.32	0.106	0.354	0.46	0.353	0.207	0.56
Trip Generation									
Multi-Family Housing (Low-Rise)	135	DU	988	14	48	62	48	28	76

Source: Traffic Operations Assessment (Ganddini Group Inc., November 2020).
[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Tenth Edition (2017). Land Use 150
[2] DU = dwelling units

As shown in Table 4.15.C, the proposed project is anticipated to generate a total of 988 average daily trips (ADT), including 62 trips (14 inbound and 48 outbound) in the a.m. peak hour and 76 trips (48 inbound and 28 outbound) in the p.m. peak hour.

In order to determine deficiencies at intersections associated with implementation of the project (i.e., the existing plus project condition), the proposed project trips were added to existing baseline traffic volumes at the study area intersections.

Table 4.15.D summarizes the results of the existing plus project peak-hour LOS analysis.

Table 4.15.D: Existing Plus Project Intersection Level of Service Summary

Intersection		Control	Peak Hour	Existing		Existing Plus Project		Project Deficiency	
				ICU	LOS	ICU	LOS	Δ ICU	Yes/No
1	Siboney Street/Katella Avenue	Signal	AM	0.470	A	0.471	A	0.001	No
			PM	0.534	A	0.535	A	0.001	No
2	Walker Street/Cerritos Avenue	Signal	AM	0.693	B	0.697	B	0.004	No
			PM	0.743	C	0.746	C	0.003	No
3	Walker Street/Vessels Circle	Signal	AM	0.397	A	0.415	A	0.018	No
			PM	0.334	A	0.364	A	0.030	No
4	Walker Street/Katella Avenue	Signal	AM	0.670	B	0.676	B	0.006	No
			PM	0.700	C	0.718	C	0.018	No
5	Valley View Street/Katella Avenue	Signal	AM	0.737	C	0.738	C	0.001	No
			PM	0.763	C	0.766	C	0.003	No

Source: Traffic Operations Assessment (Ganddini Group Inc., November 2020).
ICU = Intersection Capacity Utilization
LOS = level of service

As shown in Table 4.15.D, with the addition of the project, all study area intersections would continue to operate at satisfactory LOS during both peak hours. Project deficiencies are based on conflicts with policies for the LOS criteria of the City of Cypress (for Cypress intersections) and/or the City of Los Alamitos (for joint Cypress and Los Alamitos intersections).

Threshold 4.15.2: Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less Than Significant Impact. To calculate VMT for the proposed project, OCTAM was run for both base (2016) and future (2045) scenarios, and calculations from the relevant OCTAM output files were performed to calculate HBW VMT for the project's TAZ. The project's HBW VMT was then normalized by dividing by the population to determine the project's VMT per capita (population). Existing/baseline residential VMT per capita was developed by interpolating (using linear interpolation) between the base (2016) and future (2045) VMT.

As shown in Table 4.15.E, the project VMT per capita for project baseline (2020) conditions is 13.6.

Table 4.15.E: Baseline 2020 Project VMT per Population

Description	Project
Population	4,098
Residential VMT	55,713.3
Residential VMT/Population	13.6

Source: VMT Memorandum (Ganddini Group Inc., November 2020).
VMT = vehicle miles traveled

As shown in Table 4.15.F, the proposed project's VMT per capita does not exceed the 15.0 percent below VMT per capita for the region threshold recommended in the Technical Advisory.

Table 4.15.F: Baseline (2020) Regional and Project VMT per Population Comparison

Recommended Regional Threshold	Countywide VMT/Population (2020)	Project VMT/Population (2020)	Project's % below Countywide VMT/Population	Compared to Threshold (15% below Countywide VMT/Population)	Potentially Significant?
Residential VMT/Population	18.4	13.6	-26.1%	-12.8%	No

Source: VMT Memorandum (Ganddini Group Inc., November 2020).
VMT = vehicle miles traveled

Metrics such as VMT per capita or VMT per employee are efficiency metrics that allow absolute VMT (or total VMT) to be converted for purposes of comparison. As stated in the OPR Technical Advisory, "a project that falls below an efficiency based metric threshold that is aligned with long-term goals and relevant plans has no cumulative impact distinct from the project impact. Accordingly, a finding of a less than significant project impact would imply a less than significant cumulative impact, and

vice versa." This approach is similar to the analysis typically conducted for greenhouse gas emissions or air quality emissions.

The proposed project is consistent with the City's General Plan land use. Therefore, the vehicle trips associated with a residential use on the project site have already been incorporated into the land use and growth assumptions included in the 2020–2045 RTP/SCS. In addition, as described in Table 4.10.A under Threshold 4.10.2 in Section 4.10, Land Use and Planning, the proposed project would be consistent with applicable goals in the 2020–2045 RTP/SCS. Therefore, the proposed project is consistent with the Southern California Association of Governments (SCAG) RTP/SCS. Therefore, a cumulative analysis that makes a comparison of areawide daily total VMT without and with the project was not performed.

Threshold 4.15.3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact. As discussed in Chapter 3.0, Project Description, the proposed project does not propose any major traffic infrastructure improvements. In addition, as described in Section 4.10, Land Use and Planning, the project would not include any land uses that would be incompatible with surrounding uses. Additionally, all new driveways at the project site would be subject to the provisions of the City of Cypress design standards to alleviate design feature and safety hazards, which would reduce any potential impacts to less than significant levels. Therefore, the proposed project's impacts with respect to design feature hazards would be less than significant. No mitigation is required.

Threshold 4.15.4: Would the project result in inadequate emergency access?

Less Than Significant Impact. The project site would be accessed via a new full-access driveway at the extension of Vessels Circle from its western terminus (extension beyond the knuckle). As discussed above under Threshold 4.15.3, the project driveways would be designed and improved to conform to the City's standards. In addition, the final site plans would be reviewed by the Orange County Fire Authority to confirm that adequate emergency access would be provided. Therefore, the project's impacts associated with emergency access would be less than significant. No mitigation is required.

4.15.7 Level of Significance Prior to Mitigation

The proposed project would have less than significant impacts related to conflicts with a program, plan, ordinance, or policy addressing the circulation system, hazards due to geometric design features and emergency access.

Although the City has not yet adopted VMT metrics or thresholds of significance related to VMT, a VMT analysis was conducted using the recommendations and guidance of the OPR Technical Advisory to address *State CEQA Guidelines* Section 15064.3 subdivision (b). Based on the VMT analysis, the proposed project would have a less than significant impact. Therefore, no mitigation is required.

4.15.8 Mitigation Measures

No regulatory compliance measures are applicable to the proposed project, and no mitigation measures are required.

4.15.9 Level of Significance after Mitigation

The proposed project's impacts related to traffic/transportation would be less than significant. No mitigation is required.

4.15.10 Cumulative Impacts

As defined in the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects. The cumulative impact area for traffic/transportation is the traffic study area outlined in the Traffic Operations Assessment, which includes five intersections in the Cities of Cypress and Los Alamitos.

A list of approved/pending projects provided by the Cities of Cypress and Los Alamitos were reviewed to determine whether projects in the vicinity of the project site (if any) should be included in the cumulative condition. With concurrence from the City of Cypress, 13 related projects listed in Table 4.A, Summary of Related Projects, in Chapter 4.0, Existing Setting, Environmental Analysis, Impacts, and Mitigation Measures, were included in the cumulative (Opening Year 2022) condition.

4.15.10.1 Opening Year Cumulative 2022 Condition

Less Than Significant Impact. According to the Applicant/Developer, the project would open in 2022. To develop an opening year cumulative 2022 condition, an ambient growth rate of 1 percent per year (2 percent total growth) was applied to the existing traffic counts, and trips for the cumulative projects were then added. Application of 2 percent growth to the existing traffic volumes is considered conservative and would account for any additional (unknown) future development in the project vicinity that is not included in the list of cumulative projects.

The proposed project trips were then included to represent opening year cumulative 2022 plus project conditions.

Table 4.15.G summarizes the results of the opening year cumulative 2022 (baseline and plus project) peak-hour LOS analysis for the study area intersections.

As shown in Table 4.15.G, with the addition of the proposed project, all study area intersections are forecast to operate at satisfactory LOS during both peak hours. Therefore, a project deficiency is not expected to occur at any study area intersection in the opening year cumulative 2022 condition, and the project would not contribute to a cumulatively significant impact.

Table 4.15.G: Opening Year Plus Project Intersection Level of Service Summary

Intersection		Control	Peak Hour	Opening Year		Opening Year Plus Project		Project Deficiency	
				ICU	LOS	ICU	LOS	Δ ICU	Yes/No
1	Siboney Street/Katella Avenue	Signal	AM	0.540	A	0.540	A	0.000	No
			PM	0.629	B	0.631	B	0.002	No
2	Walker Street/Cerritos Avenue	Signal	AM	0.716	C	0.719	C	0.003	No
			PM	0.767	C	0.770	C	0.003	No
3	Walker Street/Vessels Circle	Signal	AM	0.406	A	0.424	A	0.018	No
			PM	0.349	A	0.378	A	0.029	No
4	Walker Street/Katella Avenue	Signal	AM	0.705	C	0.711	C	0.006	No
			PM	0.731	C	0.742	C	0.011	No
5	Valley View Street/Katella Avenue	Signal	AM	0.769	C	0.770	C	0.001	No
			PM	0.808	D	0.811	D	0.003	No

Source: Traffic Operations Assessment (Ganddini Group Inc., November 2020).
ICU = Intersection Capacity Utilization
LOS = level of service

This page intentionally left blank

4.16 TRIBAL CULTURAL RESOURCES

This section provides a discussion of the existing tribal cultural resource environment and an analysis of potential impacts to tribal cultural resources from implementation of the Cypress Town Center Project (proposed project). According to California Public Resources Code (PRC) Section 21080.3.1 and Chapter 532, Statutes 2014 (i.e., Assembly Bill 52), "tribal cultural resources" are defined as the following:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either: (A) included or determined to be eligible for inclusion in the California Register of Historical Resources; or (B) included in a local register of historical resources as defined in subdivision (k) of Section 5020.1

2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1

This section summarizes information obtained from Assembly Bill (AB) 52 Native American consultation efforts. The record of these consultation efforts is contained in Appendix L of this Draft Environmental Impact Report (EIR).

4.16.1 Scoping Process

The City of Cypress (City) received four comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this EIR. No comment letter(s) included comments related to tribal cultural resources. The letter from the Native American Heritage Commission (NAHC) received on August 24, 2020, outlined the City's tribal consultation requirements under AB 52.

4.16.2 Methodology

The NAHC was contacted on August 21, 2020, to conduct a Sacred Lands File (SLF) search and provide a Native American Contact List for the project site pursuant to AB 52. The NAHC responded on August 24, 2020, stating that an SLF search was completed for the project site with negative results. The NAHC recommended that 17 Native American individuals representing the Diegueño, Gabrielino, Juaneño, Cupeño Luiseño, Cahuilla, Cahuilla Luiseño, and Kumeyaay groups be contacted for information regarding cultural resources that could be affected by the proposed project. Letters were also sent to three additional individuals who had requested to be notified of projects during AB 52 consultation (and were not listed by the NAHC), representing the Cahuilla Luiseño, Juaneño, and Gabrielino groups. Nineteen individuals were contacted through letters sent via Priority Mail on September 23, 2002, or via FedEx on September 24, 2020. One individual was contacted via email on September 24, 2020, since no mailing address was provided. No responses were received.

4.16.3 Existing Environmental Setting

The area that is now the City of Cypress was prehistorically occupied by Native Americans. This area is within the traditional boundaries of the Gabrielino.

4.16.4 Regulatory Setting

4.16.4.1 Federal Regulations

There are no federal regulations that are applicable to tribal cultural resources relevant to the proposed project.

4.16.4.2 State Regulations

Assembly Bill 52 (AB 52) Tribal Consultation. California PRC Section 21080.3.1 and Chapter 532, Statutes 2014 (i.e., AB 52), require that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource, as defined, is a project that may have a significant effect on the environment. The bill requires a lead agency to begin consultation with each California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report is required for a project. The bill specifies examples of mitigation measures that may be considered to avoid or minimize impacts on tribal cultural resources. The bill makes the above provisions applicable to projects that have a Notice of Preparation or a notice of Negative Declaration or Mitigated Negative Declaration filed on or after July 1, 2015. By requiring the lead agency to consider these effects relative to tribal cultural resources and to conduct consultation with California Native American tribes, this bill imposes a State-mandated local program.

4.16.4.3 Regional Regulations

There are no regional regulations that are applicable to tribal cultural resources relevant to the proposed project.

4.16.4.4 Local Regulations

There are no local regulations that are applicable to tribal cultural resources relevant to the proposed project.

4.16.5 Thresholds of Significance

The thresholds for impacts to tribal cultural resources used in this analysis are consistent with Appendix G of the *State CEQA Guidelines* and the City's *Initial Study/Environmental Checklist*. The proposed project may be deemed to have a significant impact with respect to tribal cultural resources if it would:

Threshold 4.16.1: **Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).**

Threshold 4.16.2: **Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

4.16.6 Project Impacts

Threshold 4.16.1: **Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: 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. A cultural resources record search was completed on October 19, 2020, at the South Central Coastal Information Center (SCCIC) of the California Historical Resources Information System (CHRIS) at California State University, Fullerton. It included a review of all prehistoric and historic archaeological sites within a 0.25-mile radius of the project site, as well as a review of known cultural resource survey and excavation reports in that area. The California State Historic Resources Inventory (HRI), the National Register of Historic Places (National Register), California Historical Landmarks (SHL), California Points of Historical Interest (SPHI), and various local historical registers were examined. The SCCIC record search included the project site and the areas within 0.25-mile of the project site. Five previous cultural resources studies were identified during the background research; three studies which included the project site and two which included the 0.25-mile radius of the project site. As a result of previous cultural resources studies, no cultural resources have been recorded within the project site. One cultural resource has been recorded within the 0.25-mile radius (P-30-176854, the historic-period Navy Golf Course in Seal Beach).

Native American consultation was conducted by the City in compliance with AB 52. As part of the consultation process, a review of the SLF by the NAHC yielded negative results. Subsequently, Native American representatives were contacted by the City to determine their desire to consult on the proposed project. No requests for AB 52 consultation were received for the proposed project, and no information regarding specific known tribal cultural resources on the project site was provided to the City.

Because no tribes requested consultation or provided information regarding tribal cultural resources on the project site, no tribal cultural resources listed or eligible for listing in the California Register of

Historical Resources (California Register) or in a local register exist within the project site, and there are no known tribal cultural resources on the project site. The proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource defined as a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is listed or eligible for listing in the California Register or in a local register of historical resources as defined in PRC Section 5020.1(k), and no mitigation is required.

Threshold 4.16.2: **Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

No Impact. Native American consultation was conducted in compliance with AB 52. As part of the consultation process, a review of the SLF by the NAHC yielded negative results. Subsequently Native American representatives were contacted by the City to determine their desire to consult on the proposed project. No requests for AB 52 consultation were received for the proposed project, and no information regarding specific known tribal cultural resources on the project site was provided to the City.

Although no human remains are known to be on the project site or are anticipated to be discovered during project construction, there is always a possibility of encountering unanticipated human remains. If human remains are Native American in origin, the remains may be considered a tribal cultural resource. Regulatory Compliance Measure CUL-1, provided in Section 4.4, Cultural Resources, requires compliance with the State's Health and Safety Code for the treatment of human remains and includes coordination with the Native American Heritage Commission and a Most Likely Descendant if the remains are determined to be Native American. No mitigation is required.

4.16.7 Level of Significance Prior to Mitigation

No impacts to known tribal cultural resources listed or eligible for listing in the California Register or in a local register would occur. No impacts to previously undiscovered tribal cultural resources would occur.

4.16.8 Regulatory Compliance Measures and Mitigation Measures

4.16.8.1 Regulatory Compliance Measures

Refer to Regulatory Compliance Measure CUL-1 in Section 4.4, Cultural Resources.

4.16.8.2 Mitigation Measures

No mitigation is required.

4.16.9 Level of Significance after Mitigation

As stated previously, no impacts to known tribal cultural resources listed or eligible for listing in the California Register or in a local register would occur. No impacts to previously undiscovered tribal cultural resources would occur.

4.16.10 Cumulative Impacts

Potential impacts of the proposed project to unknown tribal cultural resources, when combined with the impacts of past, present, and reasonably foreseeable projects in the City of Cypress, could contribute to a cumulatively significant impact due to the overall loss of tribal cultural resources in the region. However, each development proposal received by the City is required to undergo environmental review pursuant to the California Environmental Quality Act (CEQA). As described above, the proposed project is not anticipated to affect tribal cultural resources and is not expected to contribute to cumulative impacts on unknown tribal cultural resources.

This page intentionally left blank

4.17 UTILITIES AND SERVICE SYSTEMS

This section describes the utility providers within whose jurisdiction the project site is located and evaluates the potential impacts of the Cypress Town Center Project (proposed project) on utilities and service systems. This section is based on multiple data sources, including: written correspondence and coordination with utility providers (Appendix J) and the California Emissions Estimator Model (CalEEMod) outputs generated for the proposed project (Appendix B). This section addresses the following utilities and service systems (service providers are noted in parentheses).

- Electricity (Southern California Edison [SCE])
- Natural Gas (Southern California Gas Company [SoCalGas])
- Solid Waste (Valley Vista Services; Orange County Waste and Recycling [OCWR])
- Wastewater (Orange County Sanitation District [OCSD])
- Potable Domestic Water (Golden State Water Company [GSWC])
- Storm Drainage (Orange County Flood Control District [OCFCD])

4.17.1 Scoping Process

The City of Cypress (City) received four comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this EIR. No comment letter(s) included comments related to utilities and service systems.

4.17.2 Methodology

Utility providers were sent a questionnaire requesting information regarding current service provided to the project site and possible constraints or impacts to this service associated with project buildout. The impact analyses are based on data obtained through websites, and adopted planning documents of the service and utility providers. This analysis also includes CalEEMod outputs generated for the proposed project, which are included in Appendix B of this Draft Environmental Impact Report (EIR). Correspondence with utility providers is included in Appendix J.

4.17.3 Existing Environmental Setting

4.17.3.1 Electricity

In 2018, California's electricity was generated primarily by natural gas (34.91 percent), coal (3.30 percent), large hydroelectric (10.68 percent), nuclear (9.05 percent), and renewable sources (31.36 percent). Total electric generation in California in 2018 was 285,488 gigawatt-hours (GWh), down 2 percent from the 2017 total generation of 292,039 GWh.[1]

The project site is within the service territory of SCE, which provides services through a grid of transmission lines and related facilities. SCE provides electricity to more than 15 million people in a

[1] California Energy Commission (CEC). 2018a. 2018 Total System Electric Generation. Website: https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2019-total-system-electric-generation/2018 (accessed November 11, 2020).

50,000-square-mile (sq mi) area of Central, Coastal, and Southern California.[1] According to the California Energy Commission (CEC), total electricity consumption in the SCE service area in 2019 was 80,912 GWh.[2] Total electricity consumption in Orange County in 2019 was 19,459 GWh (6,661 GWh for the residential sector and 12,798 GWh for the non-residential sector).[3]

4.17.3.2 Natural Gas

Natural gas consumed in California is used for electricity generation (45 percent), residential uses (21 percent), industrial uses (25 percent), and commercial uses (9 percent). California continues to depend upon out-of-state imports for nearly 90 percent of its natural gas supply.[4] SoCalGas, the service provider for the project site, serves approximately 21.8 million customers in a 24,000 sq mi service territory.[5] SoCalGas has four storage fields—Aliso Canyon, Honor Rancho, La Goleta, and Playa del Rey—and has a combined storage capacity of 72 billion cubic feet as of September 19, 2019.[6]

According to the CEC, total gas consumption in the SoCalGas service area in 2019 was approximately 5,424.71 million therms and approximately 1,029.77 million therms for the commercial sector.[7] Similarly to its forecasting for future electrical demand, the CEC has also prepared three scenarios to assist with interpreting future growth in natural gas demand within each of the State's natural gas planning areas: high-demand, mid-demand, and low-demand. Annual growth from 2016 to 2026 for the California Energy Demand 2017 Revised Forecast[8] in the SoCalGas Natural Gas Planning Area averages 0.73 percent, 0.28 percent, and 0.11 percent over the 10-year growth period in the high, mid, and low cases, respectively. Overall consumption growth reflects projected population growth in the planning area.

4.17.3.3 Solid Waste

The City of Cypress currently contracts with Valley Vista, a private solid waste hauler, to collect and dispose of the solid waste/refuse generated by the City. Solid waste/refuse collected in the City by

---

1 Southern California Edison (SCE). 2020. About Us. Website: https://www.sce.com/about-us/who-we-are (accessed November 11, 2020).

2 CEC. 2020b. Electricity Consumption by Entity. Website: http://www.ecdms.energy.ca.gov/elecbyutil.aspx (accessed November 11, 2020)

3 CEC. 2020a. Electricity Consumption by County. Website: http://www.ecdms.energy.ca.gov/elecbycounty.aspx (accessed November 11, 2020).

4 CEC. 2020d. Supply and Demand of Natural Gas in California. Website: https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california. (accessed November 11, 2020).

5 Southern California Gas Company (SoCalGas). Company Profile: About SoCalGas Webpage. Website: https://www.socalgas.com/about-us/company-profile (accessed November 11, 2020)

6 U.S. Energy Information Administration (EIA). 2019. Southern California Daily Energy Report. Website: https://www.eia.gov/special/disruptions/socal/winter/#commentary (accessed November 11, 2020)

7 CEC. 2020c. Gas Consumption by Entity. Website: http://www.ecdms.energy.ca.gov/gasbyutil.aspx (accessed November 11, 2020).

8 CEC. 2018b. *California Energy Demand, 2018–2030 Revised Forecast*. Publication Number: CEC-200-2018-002-CMF. February. Website: https://efiling.energy.ca.gov/getdocument.aspx?tn=223244 (accessed October 2020).

Valley Vista would be transported to one of the Class III landfills operated and maintained by OCWR. Class III landfills only accept non-hazardous municipal solid waste for disposal; no hazardous or liquid waste is accepted. County residents are able to dispose of their household hazardous waste items at any of OCWR's four household hazardous waste collection centers. Currently, OCWR maintains and operates three Class III sanitary landfills, identified below in Table 4.17.A.

Table 4.17.A: Orange County Class III Landfills

Landfill	Location	Approximate Distance from Project Site (miles)	Service
Frank R. Bowerman	11002 Bee Canyon Access Road Irvine, CA 92602	25	Commercial dumping No public dumping
Olinda Alpha	1942 North Valencia Avenue Brea, CA 92823	20	Commercial dumping Public dumping allowed
Prima Deshecha	32250 La Pata Avenue San Juan Capistrano, CA 92675	38	Commercial dumping Public dumping allowed

Source: Orange County Waste and Recycling (2020) (Website: https://www.oclandfills.com/landfills/active-landfills, accessed November 2020).

Of the three Class III landfills currently operated by OCWR, the closest active landfill to the project site is the Olinda Alpha Landfill.

The Olinda Alpha Landfill is scheduled to close in approximately 2030, at which time it will be landscaped to become a County Regional Park.[1] The Olinda Alpha Landfill is currently permitted by the California Department of Resources, Recycling, and Recovery (CalRecycle) to receive a maximum of 8,000 tons per day (tpd) of waste, but currently receives an average of approximately 7,000 tpd.[2] Therefore, the Olinda Alpha Landfill currently operates at approximately 87.5 percent of its daily capacity.

4.17.3.4 Wastewater

The project site is in the sewer service area of the Orange County Sanitation District (OCSD). The OCSD provides wastewater collection, treatment, and recycling for approximately 2.6 million people living within a 480 sq mi area of central and northwestern Orange County.[3] The OCSD's facilities include 388 miles of sewer pipes and 15 pump stations located throughout the county. The OCSD treats approximately 189 million gallons of wastewater from residential, commercial, and industrial sources per day that is sent to two treatment plants: Plant No. 1 and Plant No. 2. Treatment Plant No. 1, at 10844 Ellis Avenue in Fountain Valley, is located approximately 11 miles southeast of the project site. Treatment Plant No. 2, at 22212 Brookhurst Street in Huntington Beach, is located approximately 15 miles southeast of the project site.

---

1 Orange County Waste & Recycling (OCWR). 2020. Landfill Information. Website: http://www.oclandfills.com/landfill (accessed November 11, 2020).

2 Ibid.

3 Orange County Sanitation District (OCSD). 2020a. *2019-2020 Annual Report.* Website: https://www.ocsd.com/Home/ShowDocument?id=30061 (accessed November 11, 2020).

The OCSD is responsible for the provision of wastewater treatment facilities that serve the project site. Sewage from the City of Cypress is diverted to either Reclamation Plant No. 1 or Reclamation Plant No. 2. Excess wastewater from any of six trunk sewers tributary to Plant No. 1 is diverted to Plant No. 2 to not overload the capacity of Plant No. 1 and to provide for maintenance or construction activities.[1] Reclamation Plant No. 1 has a primary treatment capacity of 204 million gallons per day (mgd), and is running under capacity at approximately 120 mgd.[2] Reclamation Plant No. 2 has a primary treatment capacity of 168[3] mgd and currently receives 65 mgd. [4] Additionally, through its Capital Improvement Program, the OCSD strives to continue maintaining its facilities at optimal levels by planning, designing, and preparing for future demand by developing Facilities and Biosolids Master Plans that address 20-year planning horizons.[5]

4.17.3.5 Potable Domestic Water Service

GSWC provides domestic water service to the project site. GSWC's Los Alamitos service area includes Cypress, Los Alamitos, and Stanton; additionally, small portions of Buena Park, Garden Grove, La Palma, Seal Beach, and the unincorporated community of Rossmoor are included in the Los Alamitos service area. In a questionnaire received by GSWC regarding the proposed project's potable water services, it was stated that there are currently no plans for the expansion of GSWC water facilities.[6] There are approximately 27,200 customers within GSWC's Los Alamitos service area.[7]

The 2015 West Orange Urban Water Management Plan (UWMP) demonstrates that GSWC has adequate domestic water supply for future water demands through 2040. GSWC obtains its water supply for the West Orange System from two primary sources: imported groundwater and GSWC-operated groundwater wells. Imported water is purchased from the Municipal Water District of Orange County (MWDOC). MWDOC is largely a pass-through provider of imported water, obtaining its water supply from the Metropolitan Water District of Southern California (MWD).[8] According to the UWMP, MWD intends to provide 100-percent supply reliability to MWDOC, which in turn provides 100-percent supply reliability to the West Orange System. Groundwater is extracted from 17 active, GSWC-owned wells in the Orange County Groundwater Basin.[9] The UWMP includes a water supply and demand assessment that demonstrates that adequate water supply, including

---

1 OCSD. 2020b. 2019-2020 Annual Report Resource Protection Division Pretreatment Program. Website: https://www.ocsd.com/Home/ShowDocument?id=30137 (accessed November 11, 2020).

2 Ibid.

3 Ibid.

4 OCSD. 2020d. Facts and Key Statistics Webpage. Website: https://www.ocsd.com/services/regional-sewer-service (accessed November 11, 2020).

5 OCSD. 2020c. Capital Improvement Program Fiscal Year 2019/2020. Website: https://www.ocsd.com/Home/ShowDocument?id=29999 (accessed November 11, 2020).

6 Golden State Water Company (GSWC). 2020b. Potable Water Services Questionnaire. Received November 17, 2020.

7 GSWC. 2020a. Los Alamitos Customer Service Area. Website: http://www.gswater.com/los-alamitos/ (accessed November 11, 2020).

8 GSWC. 2016. *2015 Urban Water Management Plan, West Orange.* Section 6.1. July.

9 Ibid. Section 6.2. July.

both imported groundwater and groundwater from GSWC-owned wells, will be available to GSWC through 2040.[1]

As of 2015, recycled water was not used within the West Orange System. However, an existing agreement would allow GSWC to purchase recycled water from the Los Angeles County Sanitation District and provide the recycled water to Forest Lawn Memorial-Park in Cypress.[2] Therefore, projected water supply information in the UWMP includes recycled water as a source.

The total projected water demand for customers served by GSWC is approximately 16,722 acre-feet per year (afy) in 2020; the projected water demand increases every 5-year period, totaling 17,701 afy by 2040.[3] GSWC's planned water supplies for 2020 total 16,722 afy, which consists of 1,644 afy (9.8 percent) of imported water, 14,798 afy (88.5 percent) of groundwater from GSWC-owned wells, and 280 afy (1.7 percent) of recycled water.[4] Imported water from MWDOC is provided to the GSWC West Orange System through three connections, which have supply capacities of 4,500 gallons per minute (gpm), 11,200 gpm, and 9,000 gpm. These three connections together account for a total supply capacity of 24,700 gpm.[5] Over the next 20 years, imported water supplies are anticipated to comprise the same proportion of GSWC's water supply as under current conditions.

4.17.3.6 Storm Drain

As discussed in Section 4.9, Hydrology and Water Quality, in its existing condition, stormwater runoff on the on-site parking lot flows in an east/west orientation to two separate concrete ribbon gutters that transverse the project site and convey flow from north to south. In addition to on-site stormwater runoff, off-site stormwater runoff from 11.8 acres north of the project site is also tributary to the ribbon gutters. Each gutter conveys stormwater runoff to a separate existing catch basin that connects to an existing City maintained 33-inch storm drain that runs on the north edge Katella Avenue from east to west. The 33-inch storm drain increases to a 39-inch storm drain then to a 48-inch storm drain just downstream of the project site. Stormwater runoff that exceeds the capacity of catch basin inlets ponds in the parking lot to a depth of 12 to 18 inches before overflowing and discharging overland to the existing on-site driveway and into the Katella Avenue curb and gutter. The Katella Avenue stormdrain conveys stormwater runoff to the west, where it connects to the Los Alamitos Channel. Los Alamitos Channel flows southwest where it discharges into the San Gabriel River just north of its mouth, and then into the Pacific Ocean.

An existing 24-inch storm drain that runs north to south is located in Winners Circle between Katella Avenue and the end of the cul-de-sac. This stormdrain conveys stormwater runoff from Winners Circle to the Katella Avenue stormdrain. The approved stormdrain plan for the Winners Circle stormdrain included an extension to the north, past the end of the cul-de-sac, and then west across the existing parking lot just north of the project site. The stormdrain extension was proposed to accommodate restricted flows of 0.3 cubic foot per second per acre (cfs/acre) from the property

1 GSWC. 2016. *2015 Urban Water Management Plan, West Orange*. Section 7.3.
2 Ibid.
3 Ibid. Section 4.2.1.
4 Ibid. Section 6.9.
5 Ibid. Section 6.1.

north of the project site. However, only the portion of the stormdrain in Winners Circle was constructed.

4.17.3.7 Telecommunications Facilities

Telephone, television, and internet services are offered by a variety of providers in the City of Cypress, including AT&T, Frontier Communications, Spectrum, HughesNet, and ViaSat. Non-satellite providers include Frontier, DirectTV, Spectrum Cable, and DishTV. Satellite internet providers include ViaSat. These services are privately operated and offered to each location in the City for a fee defined by the provider.

4.17.4 Regulatory Setting

4.17.4.1 Federal Regulations

There are no federal policies or regulation applicable to the proposed project.

4.17.4.2 State Regulations

Water Supply Assessment. California Public Resources Code (PRC) Section 21151.9 requires that any proposed "project," as defined in Section 10912 of the Water Code, prepare a Water Supply Assessment in compliance with Water Code Section 10910, et seq. Water Code Section 10910 et seq. outlines the necessary information and analysis that must be included in an EIR to ensure that a proposed land development has a sufficient water supply to meet existing and planned water demand over a 20-year horizon.

According to Water Supply Assessment requirements, a "project" is defined as any of the following:

- A residential development of more than 500 dwelling units;
- A shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet (sf) of floor space;
- A commercial office building employing more than 1,000 persons or having more than 250,000 sf of floor space;
- A hotel or motel, or both, having more than 500 rooms;
- An industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 sf of floor area;
- A mixed-use project that includes one or more of the projects specified above; and
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling-unit project.

If a public water system has fewer than 5,000 service connections, a "project" means any proposed residential, business, commercial, hotel or motel, or industrial development that would account for an increase of 10 percent or more in the number of the public water system's existing service connections, or a mixed-use project that would demand an amount of water equivalent to, or greater than, the amount of water required by residential development that would represent an increase of 10 percent or more in the number of the public water system's existing service connections.

The proposed project would include the development of 135 multi-family residential dwelling units. GSWC has not published water demand factors for the Los Alamitos Customer Service Area. In the absence of these factors, estimated water demand for the proposed project was compared to estimated water demand for a 500-unit low-rise apartment complex based on water demand factors in CalEEMod.

The proposed project's land uses would demand approximately 16 percent less water than a 500-unit low-rise apartment complex. Additionally, GSWC has more than 5,000 service connections. Therefore, the proposed project does not meet the definition of a "project" pursuant to California Water Code Section 10912, and a Water Supply Assessment is not required for the proposed project.

Assembly Bill 341. Assembly Bill (AB) 341 extends the waste diversion requirements established under the California Integrated Waste Management Act of 1989 to the year 2020. In 1989, the California Legislature adopted the California Integrated Waste Management Act of 1989, which is administered by CalRecycle (formerly known as the California Integrated Waste Management Board) and requires each city, county, and regional agency to develop a source reduction and recycling element of an integrated waste management plan. Each adopted source reduction and recycling element was required to demonstrate the diversion of 50 percent of all solid waste from landfill disposal or transformation by January 1, 2000. Annual progress reports were required to be filed with the State Legislature that included specified information regarding the act. AB 341 further establishes the policy goal of the State that not less than 75 percent of solid waste generated be source-reduced, recycled, or composted by the year 2020. AB 341 requires CalRecycle, by January 1, 2014, to provide a report to the Legislature that provides strategies to achieve that policy goal and also includes other specified information and recommendations in addition to the annual progress report.

Title 24, California Building Code. Energy consumption by new buildings in California is regulated by the Building Energy Efficiency Standards, embodied in Title 24 of the California Code of Regulations (CCR), known as the California Building Code (CBC). The CEC first adopted the Building Energy Efficiency Standards for Residential and Nonresidential Buildings in 1978 in response to a legislative mandate to reduce energy consumption in the State. The CBC is updated every 3 years. The 2019 Building Energy Efficiency Standards became effective on January 1, 2020. The efficiency standards apply to both new construction and rehabilitation of both residential and non-residential buildings, and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit process. Local government agencies may adopt and enforce energy standards for new buildings, provided these standards meet or exceed those provided in CCR Title 24.

4.17.4.3 Regional Regulations

Metropolitan Water District 2015 Regional Urban Water Management Plan. MWD's 2015 Regional UWMP lists and describes the various uses, demand, supplies, target reductions, and compliance measures for 26 member agencies. These include 14 cities, 11 municipal water districts, and one county water authority serving approximately 18.7 million people in Southern California. The 2015 Regional UWMP found that under the current supply demands for a multiple-dry-year scenario (i.e., drought conditions), MWD would have sufficient supply to meet the projected growing demand for water from 2020 to 2040 while still meeting statewide reduction targets of 20 percent of 2009 levels by 2020. MWD is currently working to develop programs to increase its water supply and create a large surplus during multiple-dry-year scenarios to ensure that water demands will still be addressed during emergency drought situations. With demands projected to be around 2.3 million acre-feet in 2040 during multiple-dry-year scenarios, MWD would have a surplus of 2,000 acre-feet with current capabilities and 288,000 acre-feet with the implementation of the programs under development.

Municipal Water District of Orange County 2015 Urban Water Management Plan. The region served by MWDOC is located in Orange County, California, and includes 26 cities (including the City of Cypress) and water districts, referred to as MWDOC member agencies. MWDOC's 2015 UWMP documents information on all sources of water supplies for the region—imported water, groundwater, surface water, recycled water, and wastewater—as a summary of information for regional planning. The plan concludes that the MWDOC service area will have sufficient existing and planned supplies to meet full service demands under every water-year hydrologic scenario from 2015 through 2040. The plan also evaluates each source of water in the region. The resource mix for meeting total demand includes local groundwater, recycled water, surface water, and imported water from MWD. The plan documents MWDOC's cooperative efforts with its member agencies in developing local supplies and finds that in the region the percentage of its supply from each source will remain approximately the same for the next 25 years, with 30 percent of its supplies from imported water and 70 percent of its supplies from local sources in 2040, even with projected growth occurring.

4.17.4.4 Local Regulations

Golden State Water Company 2015 Urban Water Management Plan (West Orange). GSWC published its 2015 West Orange UWMP, which outlines how GSWC will provide customers with a reliable supply of drinking water for the next 30 years. The 2015 UWMP provides the California Department of Water Resources with information regarding present and future water resources and demands and provides an assessment of GSWC's water resource needs. The 2015 UWMP utilizes factors that were evaluated in ensuring supply reliability in the MWDOC's 2015 UWMP and the MWD's 2015 Regional UWMP.

The UWMP conducts a supply assessment to meet the projected growing demand in its West Orange service area. The UWMP analyzes water supply during multiple-dry-year scenarios to ensure that water demands will still be addressed during emergency drought situations. The UWMP includes these multiple-dry-year scenarios in its analysis of future water demand.

City of Cypress Municipal Code. The Cypress Municipal Code includes the following requirements that would apply to the proposed project related to the provision of utilities:

- **Section 12-31 (Required Diversion Rates)** of the City's Municipal Code requires that the applicant for a covered project shall divert, at a minimum, the percentage of construction and demolition debris as specified by the California Green Building Standards Code.

Section 5-1 (California Building Codes—Adopted) adopts the 2019 California Green Building Standards Code, 2019 Edition (Title 24). Generally, the intent of Title 24 is to provide efficiency standards for new construction and the rehabilitation of both residential and nonresidential buildings, including building energy consumption, water conservation, and operational efficiencies. Title 24 regulates building energy consumption for heating, cooling, ventilation, water heating, and lighting with regard to both electricity and natural gas, while also regulating water consumption through the installation of efficient plumbing fixtures. Title 24 is included as Regulatory Compliance Measure AQ-5, as detailed in Section 4.2, Air Quality, of this Draft EIR.

4.17.5 Thresholds of Significance

The thresholds for impacts to utilities and service systems used in this analysis are consistent with Appendix G of the *State CEQA Guidelines* and the City's *Initial Study/Environmental Checklist*. The proposed project may be deemed to have a significant impact with respect to utilities and service systems if it would:

Threshold 4.17.1: **Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

Threshold 4.17.2: **Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?**

Threshold 4.17.3: **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?**

Threshold 4.17.4: **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?**

Threshold 4.17.5: **Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

4.17.6 Project Impacts

Threshold 4.17.1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

4.17.6.1 Water

Construction.

Less Than Significant Impact. Short-term water demand may occur during the excavation, grading, and construction process on site. Construction activities would require water primarily for dust and mitigation purposes. Water from the existing potable water lines in the vicinity of the project site would be used. Overall, short-term construction activities would require minimal water and are not expected to have any adverse impacts on the existing water system or available water supplies. The proposed project would not require the construction of new or expanded water conveyance, treatment, or collection facilities with respect to construction activities. Therefore, the impacts on water facilities during construction would be less than significant, and no mitigation is required.

Operation.

Less Than Significant Impact. The proposed project would include an on-site domestic water distribution system to serve the proposed project's residential uses. The on-site system would be constructed in compliance with the City's building and plumbing codes in the City Municipal Code. The proposed on-site distribution system would connect to the existing GSWC water facilities located within Katella Avenue adjacent to the southern border of the project site. Domestic water service, irrigation water service, and fire protection water service would all be connected to these existing water mains through connections from existing domestic water lines in Vessels Circle and Winners Circle. Extension of the water infrastructure from the adjacent streets into the project site would be a routine part of the construction process analyzed in this EIR and would not have a material environmental impact. The water facility improvements would be limited to the project site and connection points to the adjacent, existing GSWC facilities. In addition, the GSWC stated in their received Potable Water Services questionnaire that the proposed project is able to be served in compliance with California Public Utilities Commission (CPUC) rules and practice.[1] Therefore, the proposed project would not require or result in the construction of new water facilities, or the expansion of existing facilities, which could cause a significant environmental impact, and the impact would be less than significant. No mitigation is required.

4.17.6.2 Wastewater

Construction.

Less Than Significant Impact. No significant increase in wastewater flows is anticipated as a result of construction activities on the project site. Sanitary services during construction would be provided by portable toilet facilities, which transport waste off-site for treatment and disposal.

[1] GSWC. 2020b. Potable Water Services Questionnaire. Received November 17, 2020.

Therefore, during construction, potential impacts to wastewater treatment and wastewater conveyance infrastructure would be less than significant, and no mitigation would be required.

Operation.

Less Than Significant Impact. The on-site network of private sewer mains and laterals for the proposed project would connect to the sewer mains along Katella Avenue and convey wastewater flows to a nearby OCSD trunk line before eventually discharging into either OCSD's Reclamation Plant No. 1 or Reclamation Plant No. 2. Any sewer improvements associated with the proposed project would be designed and constructed to City and OCSD standards. The proposed project's site plans would be accompanied by adequate plans for sewer improvements prepared by a registered professional engineer and facilities would be dedicated to the City and/or OCSD at the completion of construction. Regulatory Compliance Measure UTIL-1 requires all sewer improvements to comply with City and OCSD sewage standards. With the implementation of Regulatory Compliance Measure UTIL-1, the proposed project would result in less than significant impacts related to the construction or expansion of wastewater treatment facilities. Therefore, the proposed project would not require or result in the construction of new water treatment or collection facilities, or the expansion of existing facilities, which could cause a significant environmental impact, and the impact would be less than significant. No mitigation is required.

4.17.6.3 Stormwater/Drainage

Construction.

Less Than Significant Impact. Grading and construction activities would disturb soils and temporarily modify the stormwater flow patterns on the construction site. As described under the analysis of Thresholds 4.9.1, 4.9.6, 4.9.11, 4.9.12, and 4.9.18 in Section 4.9, Hydrology and Water Quality, the proposed project would be subject to requirements of the Construction General Permit (Regulatory Compliance Measure HYD-1), which requires the preparation of a Storm Water Pollution Prevention Plan (SWPPP) and identification of construction Best Management Practices (BMPs) that must be implemented during project construction to address potential impacts to hydrology and stormwater drainage, including soil erosion, siltation, spills, and runoff. Adherence to the regulatory standards described in Regulatory Compliance Measure HYD-1 in Section 4.9, Hydrology and Water Quality, would ensure that any changes in stormwater drainage from the project site are controlled during construction. Therefore, the proposed project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts, and the impact would be less than significant. No mitigation is required.

Operation.

Less Than Significant Impact. Refer to Section 4.9, Hydrology and Water Quality, for additional information regarding the proposed project's impacts related to hydrology during operation. The proposed project includes the construction of an on-site stormdrain system. Stormwater runoff would be discharged to the Winners Circle stormdrain system at City required controlled gates. The Water Quality Management Plans (WQMPs) prepared for the proposed on-site and off-site improvements associated with the project identified pollutants of concern that may affect the quality of discharges of stormwater from the site. Both WQMPs set forth measures specified in the

Countywide WQMP and the National Pollutant Discharge Elimination System (NPDES) Drainage Area Management Plan (DAMP) (2003)[1], the assignment of long-term maintenance responsibilities, and the locations of all structural Best Management Practices, which are intended to provide measures that minimize or eliminate the introduction of pollutants into the stormwater system. Regulatory Compliance Measure HYD-3 in Section 4.9, Hydrology and Water Quality, requires the implementation of BMPs identified in the WQMPs and the drainage improvements identified in the Hydrology and Hydraulics Study.

The proposed stormwater runoff detention system would drain southwest to discharge to an existing 18-inch storm drain along Winners Circle via a proposed on-site pump system. From there, stormwater runoff would flow west towards the system on Katella Avenue. The proposed project would not increase impervious area on the project site and would therefore not result in a net increase of stormwater runoff. The proposed on-site detention system would also restrict runoff from the proposed site to 0.3 cfs/acre (or 2.1 cfs for the project site), a substantial reduction from its existing condition.

Additionally, the proposed drainage system improvements would be required to be designed and constructed to City and OCFCD standards. With the adherence to Regulatory Compliance Measure HYD-3, the proposed project would result in less than significant impacts related to the construction or expansion of stormwater drainage facilities. No mitigation is required.

4.17.6.4 Electric Power

Construction.

Less Than Significant Impact. Short-term construction activities would be limited to providing power to the staging area and portable construction equipment and would not substantially increase demand for electricity. The heavy equipment used for construction is primarily powered by diesel fuel. Temporary electric power would be provided via existing utility boxes and lines on the project site. Given the limited nature of potential demand for electricity during construction and the availability of existing power lines on the site, there would not be a need to construct new or alter existing electric transmission facilities. Impacts to local regional supplies of electricity would be less than significant, and no mitigation is required.

Operation.

Less Than Significant Impact. Operation of the proposed project would increase on-site electricity demand compared to existing conditions. The project site in its existing condition is a parking lot with existing light poles. Therefore, current demand for electricity on the project site is negligible. As discussed in Section 4.5, Energy, the energy use consumed by the proposed project would be associated with natural gas use, electricity consumption, and fuel used for vehicle trips associated with the project. The estimated potential increase in electricity demand associated with the operation of the proposed project is 379,499 kilowatt-hours (kWh) per year. Total electricity demand in Orange County in 2019 was approximately 19,460 GWh (19,460,000,000 kWh).

[1] Orange County Public Works. OC Watersheds. *2003 Drainage Area Management Plan* (DAMP). Website: https://cms.ocgov.com/gov/pw/watersheds/documents/damp/mapplan.asp (accessed December 2020).

Therefore, operation of the proposed project would increase the annual electricity consumption in Orange County by less than 0.01 percent. The proposed project would be required to comply with Title 24 energy efficiency measures and sustainability features of the California Building Code as described under Regulatory Compliance Measure AQ-5, in Section 4.2, Air Quality.

Additionally the proposed project would reduce electricity consumption by incorporating the following energy efficiency measures in the design of the proposed structures in addition to complying with Title 24 requirements:

- Increased insulation in walls and attic spaces
- Cool roof features
- Duct insulation and improved-efficiency heating, ventilation, and air conditioning systems
- High-efficiency water heaters
- Installation of daylighting features on all peripheral rooms
- North/south alignment of building or other building placement such that the orientation of the buildings optimizes conditions for natural heating, cooling, and lighting
- Shading by vegetation or overhangs

The implementation of these energy efficiency measures and compliance with Title 24 requirements could potentially result in further reductions in the estimated electricity consumption of the proposed project.

Total electricity consumption in Orange County in 2018 was approximately 20,197,000,000 kWh. Therefore, the increased electricity demand associated with the proposed project would be approximately 0.1 percent of Orange County's total electricity demand. Service providers utilize projected demand forecasts in order to provide an adequate supply or plan for surplus in their service areas. As discussed in Section 4.5, Energy, there are sufficient planned electricity supplies in the SCE service area for estimated net increases in energy demands through 2030. Because the proposed project would result in decreased demand for electricity on the project site, the project would meet Title 24 requirements and incorporate additional energy conservation measures, and there would be sufficient electricity supplies available, energy demand for the proposed project would be less than significant.

The supply and distribution network within the area surrounding the project site would remain essentially the same as exists currently, with the exception of on-site improvements to connect to the existing infrastructure. These on-site improvements would provide electrical service to the residential, commercial, and retail uses proposed. The proposed project would not increase electrical demand beyond existing projections from the local electricity provider and the project site is within a developed service area with existing demand. Therefore, the proposed project would not require the construction of any physical improvements related to the provision of electricity service

that would result in significant environmental impacts, and the proposed project's impacts would be less than significant. No mitigation is required.

4.17.6.5 Natural Gas

Construction.

Less Than Significant Impact. Short-term construction activities would not result in demand for natural gas since construction activities/equipment would not require accessing existing adjacent natural gas facilities. Therefore, construction activities would not impact natural gas services, and the proposed project would not require new or physically altered gas transmission facilities.

Operation.

Less Than Significant Impact. The existing use of the project site as a parking lot does not require the consumption of natural gas. Therefore, operation of the proposed project would increase on-site natural demand compared to existing conditions. As discussed in Section 4.5 Energy, the estimated potential increase in natural gas demand associated with the proposed project is 15,147 therms per year. Total natural gas consumption in Orange County in 2019 was approximately 623 million therms (623,000,000 therms). Therefore, operation of the proposed project would negligibly increase the annual natural gas consumption in Orange County by less than 0.01 percent. The estimated increase in natural gas demand associated with the proposed project would represent a very small fraction of the natural gas demand in Orange County. Additionally, the proposed project would be required to comply with Title 24 requirements as described under Regulatory Compliance Measure AQ-5, in Section 4.2, Air Quality, and would reduce natural gas consumption by incorporating the energy efficiency measures listed above in the design of the proposed structures.

As noted above, service providers utilize projected demand forecasts in order to provide an adequate supply or plan for surplus in their service areas. As discussed in Section 4.5, Energy, it is anticipated that SoCalGas would be able to meet the natural gas demand in its service area through 2035. Because the proposed project would only represent a small fraction of natural gas demand in Orange County, the project would meet Title 24 requirements and incorporate additional energy conservation measures, and there would be sufficient natural gas supplies available, natural gas demand for the proposed project would be less than significant. No mitigation is required.

The supply and distribution network within the area surrounding the project site would remain essentially the same as exists today except for standard on-site improvements, and levels of service to off-site users would not be adversely affected. Existing gas transmission and distribution services maintained by SoCalGas would provide natural gas service to the proposed project. The proposed project would not increase natural gas demand beyond existing projections from the local natural gas provider and the project site is within a developed service area with existing demand. Therefore, the proposed project would not require the construction of any physical improvements related to the provision of natural gas service that would result in significant environmental impacts and the proposed project's potential impacts would be less than significant. No mitigation would be required.

4.17.6.6 Telecommunication Facilities

Less Than Significant Impact. Telephone, cable, and internet service lines in the vicinity will be extended into the project site. Internal to the project site, the project Applicant/Developer will be responsible for constructing adequate telecommunication facility extensions to the various structures of the proposed project. The construction and expansion of these facilities would occur on site during the site preparation and earthwork phase and are not expected to impact any telephone, cable, or internet services off-site that serve the surrounding areas. Additionally, telecommunication facilities are generally installed concurrently with utility expansions, and impacts associated with the expansion of telecommunications facilities are already considered in the air quality, noise, and construction traffic analyses. Therefore, the project impacts associated with the relocation or construction of new or expanded telecommunication facilities would be less than significant. No mitigation is required.

Threshold 4.17.2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact. As discussed previously, GSWC would provide water services to the project site and would connect the proposed project to the existing 12-inch water main along Katella Avenue and a 10-inch water main along Walker Street.

The proposed residential units would result in a minor increase in water demand. However, as discussed in Section 4.12, Population and Housing, the proposed project would not induce substantial population growth. Additionally, the proposed project would be required to use reclaimed water and to comply with all State laws for water conservation measures, including the use of low-flow fixtures. The total water demand generated by the proposed project as estimated by the CalEEMod outputs would be approximately 39,290 gallons per day (gpd) or 44 afy.

The estimated increase in water demand associated with the proposed project would represent 0.2 percent of the West Orange System's current annual water demand, based on the system's projected demand of 16,722 afy in 2020. The proposed project does not require the preparation of a Water Supply Assessment pursuant to California PRC Section 21151.9, as discussed previously, because the proposed project does not meet the definition of a "project" as set forth in Section 10912 of the California Water Code. The proposed project does not meet any of the criteria listed in Water Code Section 10912 and is not a project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling-unit project.

As such, the proposed project would not necessitate new or expanded water entitlements, and GSWC would be able to accommodate the increased demand for potable water. Therefore, impacts to water supplies would be less than significant. No mitigation is required.

Threshold 4.17.3: Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. As discussed above, sewage from Cypress is diverted to either Reclamation Plant No. 1 in Fountain Valley or Reclamation Plant No. 2 in Huntington Beach. Reclamation Plant No. 1 has a primary treatment capacity of 208 mgd,[1] and is running under capacity at approximately 120 mgd.[2] Reclamation Plant No. 2 has a primary treatment capacity of 168[3] mgd and is running under capacity at approximately 65 mgd. [4]

The proposed project is anticipated to generate 39,290 gpd of wastewater. However, the 39,290 gpd of wastewater generated by the proposed project would only represent a small fraction of the primary daily treatment capacity of Reclamation Plant No. 1 and Reclamation Plant No. 2 0.18 percent and 0.23 percent, respectively). Additionally, through its Capital Improvement Program, the OCSD strives to continue maintaining its facilities at optimal levels by planning, designing, and preparing for future demand by developing Facilities and Biosolids Master Plans that address 20-year planning horizons.[5] Through these long-range planning activities, the OCSD would be able to accommodate the growth in demand for wastewater treatment generated by the proposed project and other projects in its service area. Therefore, the proposed project would not result in a significant contribution to the capacity of Reclamation Plant No. 1 or Reclamation Plant No. 2. Additionally, fees required by the OCSD would sufficiently offset potential impacts generated by the proposed project. Therefore, the proposed project would result in less than significant impacts related to the wastewater treatment capacity and no mitigation measures are required.

Threshold 4.17.4: Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant Impact. As discussed above, the closest active landfill to the proposed project is the Olinda Alpha Landfill. The Olinda Alpha Landfill currently operates at approximately 87.5 percent of its daily capacity.

Based on the CalEEMod outputs, the proposed project is estimated to generate 85.16 pounds of solid waste per day during operation. The incremental increase of solid waste generated by the proposed project would constitute 0.004 percent of the remaining daily available capacity (1,000 tpd) at the Olinda Alpha Landfill. Therefore, solid waste generated by the proposed project would not cause the capacity at the Olinda Alpha Landfill to be exceeded. As such, the proposed project would be served by a landfill with sufficient permitted capacity to accommodate its solid waste disposal needs. Therefore, the proposed project would result in less than significant impacts related to solid waste and landfill facilities, and no mitigation is required.

---

1 OCSD. 2019a. Budget Update Fiscal Year 2019–2020. Website: https://www.ocsd.com/Home/ShowDocument?id=28411 (accessed November 20, 2020).

2 Ibid.

3 Ibid.

4 OCSD. 2020d. Facts and Key Statistics Webpage. Website: https://www.ocsd.com/services/regional-sewer-service (accessed November 20, 2020).

5 OCSD. 2020c. Capital Improvement Program Fiscal Year 2019/2020. Website: https://www.ocsd.com/Home/ShowDocument?id=29999 (accessed November 11, 2020).

Threshold 4.17.5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. Solid waste practices in California are governed by multiple federal, State, and local agencies that enforce legislation and regulations ensuring that landfill operations minimize impacts to public health and safety and the environment. The project site is located within OCWR's service area. An important part of OCWR's mission is to apply sound environmental practices to ensure compliance with these regulations. Additionally, OCWR has an adopted CIWMP that requires countywide facilities to meet the 15-year capacity requirements. OCWR is also obligated to obtain a Solid Waste Facilities Permit, a Storm Water Discharge Permit, and permits to construct and operate gas management systems and meet Waste Discharge Requirements. The local enforcement agency (LEA), the South Coast Air Quality Management District (SCAQMD), and the Regional Water Quality Control Board (RWQCB) enforce landfill regulations related to health, air quality, and water quality, respectively. The proposed project would not inhibit OCWR's compliance with the requirements of each of the governing bodies.

The proposed project would comply with the City's Construction and Demolition Ordinance (Regulatory Compliance Measure UTIL-2). The Applicant/Developer would also be required to submit a Materials Questionnaire should the contractor haul away its own demolition waste. Additionally, the proposed project would comply with AB 341, which went into effect on July 1, 2012. AB 341 requires businesses and multifamily residential dwelling units of five units or more that generate four or more cubic yards of commercial solid waste per week to implement recycling programs. With adherence to Regulatory Compliance Measure UTIL-2, the proposed project would comply with federal, State, and local statutes and regulations related to solid waste. Therefore, impacts would be less than significant, and no mitigation is required.

4.17.7 Level of Significance Prior to Mitigation

With adherence to Regulatory Compliance Measures UTIL-1 and UTIL-2, Regulatory Compliance Measure AQ-5, in Section 4.2, Air Quality, and Regulatory Compliance Measures HYD-1 and HYD-3, in Section 4.9, Hydrology and Water Quality, the proposed project would result in less than significant impacts related to utilities and service systems.

4.17.8 Regulatory Compliance Measures and Mitigation Measures

4.17.8.1 Regulatory Compliance Measures

The following regulatory compliance measures pertaining to utilities and service systems are applicable to the proposed project.

Regulatory Compliance Measure UTIL-1 **Sewer Improvement Standards.** All required sewer improvements shall be designed and constructed to City of Cypress (City) and Orange County Sanitation District (OCSD) standards and shall be approved by the City Engineer prior to development. These improvements may be constructed in a phased sequence depending upon the development process. Facilities shall be

dedicated to the City and/or OCSD at the completion of construction.

Regulatory Compliance Measure UTIL-2 **Construction and Demolition Ordinance**. The Construction Contractor shall comply with the provisions of City Ordinance No. 1166 and the 2016 California Green Building Standards Code, which would reduce construction and demolition waste. Ordinance No. 1166 is codified in Article VIII, Materials Questionnaire for Certain Construction and Demolition Projects within the City of Cypress in the City of Cypress Municipal Code.

4.17.9 Level of Significance after Mitigation

The proposed project would not result in any significant impacts to utilities or service systems. No mitigation is required.

4.17.10 Cumulative Impacts

As defined in the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for public services and utilities. The project site is a vacant parking lot located in an urban area with existing services provided by utility providers in the vicinity. The cumulative area for utilities is listed below for each individual utility provider.

4.17.10.1 Wastewater

The geographic area for the cumulative analysis for wastewater treatment is defined as the City and the OCSD service area. Within its service area, the OCSD uses United States Census Bureau population data, as well as information regarding existing and zoned land uses, to project current and future wastewater flows. For this reason, the projected demand for wastewater treatment is cumulative in nature.

The wastewater capacities of OCSD Reclamation Plant Nos. 1 and 2 are designed to accommodate the growth forecast within the OCSD service area and development outlined in the General Plans for jurisdictions within its service area. As discussed in Section 4.12, Population and Housing, population growth generated by the proposed project in conjunction with related projects would not induce substantial population unplanned population growth in the City. Through its Capital Improvement Program, the OCSD strives to continue maintaining its facilities at optimal levels by planning, designing, and preparing for future demand by developing Facilities and Biosolids Master Plans that address 20-year planning horizons.[1] Because OCSD prepares for future demand over long planning horizons, adequate facilities would be planned for to account for population growth. Therefore, the cumulative population and housing growth from the proposed project and the related projects

[1] OCSD. 2020c. Capital Improvement Program Fiscal Year 2019/2020. Website: https://www.ocsd.com/Home/ShowDocument?id=29999 (accessed November 11, 2020).

would be planned for and the OCSD would have adequate capacity for the increased wastewater treatment demand associated with implementation of the proposed project and the related projects within its service area.

Furthermore, OCSD is currently constructing segments of the Western Regional Sewers project that would further improve OCSD sewer facilities in the vicinity of the project site.[1] Individual projects in the OCSD service area, including the related projects, would address the localized capacity of OCSD facilities and identify whether new or upgraded facilities are required.

For these reasons, the proposed project and related projects would not result in a cumulatively significant impact to wastewater generation.

4.17.10.2 Potable Water

The geographic area for the cumulative analysis of water infrastructure is the West Orange service area of GSWC. The projections for potable water demand in the GSWC West Orange service area are based on regional population and economic growth forecasts, and account for potential future development within its service area, including the additional demand for water generated by the related projects. According to the GSWC 2015 UWMP, by 2035, the West Orange service area's population is estimated to increase at a 0.3 percent growth rate per year, and households and employment in the service area are both expected to grow at an annual growth rate of 0.2 percent over the same period. For this reason, the projected demand for water supply in the GSWC West Orange service area is inherently cumulative in nature. As discussed previously, population growth generated by the proposed project in conjunction with related projects would not result in substantial unplanned population growth. As such, GSWC would update its population projections and expected water demand accordingly to accommodate population and housing growth. Therefore, GSWC would have adequate capacity for the increased demand for potable water associated with the development of the proposed project and the related projects within its service area. Therefore, the proposed project and the related projects would not have a cumulatively significant impact on water supply or facilities.

4.17.10.3 Electricity

The geographic area for the cumulative analysis of impacts to the provision of electricity is the service territory of SCE. SCE's service area covers approximately 50,000 sq mi in Southern and Central California, with the provision of energy service to approximately 15 million across the service territory.[2] The projections of statewide electricity supply capacity demand rates are cumulative in nature. They are based on population and economic growth in addition to such physical variables as average temperature and water supplies (important to hydroelectric generation) in a given year. The total annual electricity consumption in the SCE service area in 2017 was 84,291.6 GWh and by 2030, consumption is anticipated to increase by approximately 12,000 GWh for the low-demand scenario

---

1 OCSD. 2019b. Western Regional Sewers Program Webpage. Website: https://www.ocsd.com/residents/future-projects/western-regional-sewers (accessed November 23, 2020).

2 Southern California Edison. 2020. About Us. Website: https://www.sce.com/about-us/who-we-are (accessed November 23, 2020).

and by 22,000 GWh for the high-demand scenario.[1] While this forecast represents a large increase in electricity consumption, the proposed project's percent of cumulative consumption of electricity in the SCE service area would be negligible. Therefore, any increase in electrical demand resulting from the proposed project would be incremental compared to an increase in regional demand. Sufficient electricity supplies and infrastructure capacity are available, or have already been planned, to serve past, present, and reasonably foreseeable projects.

Additionally, Title 24 of the California Administrative Code regulates energy and water consumption in new construction and regulates building energy consumption for heating, cooling, ventilation, water heating, and lighting. Therefore, in relation to the cumulative study area, the proposed project would not generate a significant cumulative increase in demand for electricity or a significant disruption in service or service level. Therefore, the proposed project's contribution to electricity impacts would not be cumulatively considerable, and no mitigation is required.

4.17.10.4 Natural Gas

The geographic area for the cumulative analysis of impacts to the provision of natural gas is the service territory for SoCalGas. SoCalGas provides natural gas to approximately 21.8 million people in a 24,000 sq mi service area throughout Central and Southern California, from Visalia to the Mexican border. Total natural gas consumption in the SoCalGas service area in 2018 was 5,156.1 million therms.[2] Between 2018 and 2035, total natural gas consumption in the SoCalGas service area is forecast to remain steady for the low- and mid-demand scenarios and to increase by approximately 650 million therms in the high-demand scenario due to intense energy efficiency efforts.[3] The proposed project's percent of cumulative consumption of natural gas in the SoCalGas service area would be negligible. Therefore, any increase in natural gas demand resulting from the proposed project would be incremental compared to an increase in regional demand. Furthermore, like the proposed project, all future projects would be subject to Title 24 requirements and would be evaluated on a case-by-case basis to determine the need for specific distribution improvements. Therefore, the proposed project's contribution to natural gas impacts would not be cumulatively considerable, and no mitigation is required.

4.17.10.5 Solid Waste

The geographic area for the cumulative analysis of solid waste infrastructure is OCWR's service territory. Development associated with the proposed project would contribute to an increased demand for landfill capacity for solid waste. As stated previously, the landfill serving the project site would be the Olinda Alpha Landfill, which is not scheduled to close until 2030. As discussed under Threshold 4.17.4 above, the proposed project would only constitute approximately 0.004 percent of the remaining average daily capacity at the Olinda Alpha Landfill. Additionally the Olinda Alpha Landfill is currently only receiving 87.5 percent of the 8,000 tons it is permitted to receive. Therefore, the Olinda Alpha Landfill has sufficient permitted capacity to provide adequate capacity

---

1 CEC. 2018b. California Energy Demand, 2018–2030 Revised Forecast. February. Website: https://efiling.energy.ca.gov/getdocument.aspx?tn=223244 (accessed November 11, 2020).

2 CEC. 2020c. Gas Consumption by Entity. Website: https://ecdms.energy.ca.gov/gasbyutil.aspx (accessed November 11, 2020).

3 Ibid.

for Orange County's solid waste needs and with compliance with federal, State, and local statues and regulations related to solid waste, which require reductions in solid waste generation.

Furthermore, based on their current daily maximum permitted disposal capacities and current average daily tonnage, the Alpha Olinda Landfill will reach capacity in 2030, the Frank R. Bowerman Landfill will reach capacity in 2053, and the Prima Deshecha Landfill will reach capacity in 2102.[1] Therefore, there is currently sufficient permitted capacity within the existing OCWR system serving Orange County to provide adequate future capacity for the County's solid waste needs. Therefore, the proposed project's contribution to solid waste impacts would not be cumulatively considerable, and no mitigation is required.

4.17.10.6 Telecommunication Facilities

The geographic area for the cumulative analysis of impacts to the provision of telecommunication facilities is the City. Telephone, cable, and internet services are provided to residents through private providers of these services. The construction and expansion of telecommunication facilities for the proposed project would occur on site and is not expected to impact any telephone, cable, or internet services offsite that serve the surrounding areas. Likewise, construction and expansion of telecommunication facilities would generally occur on site to extend through proposed related developments. Therefore, cumulative impacts associated with the relocation or construction of new or expanded telecommunication facilities would be less than significant. No mitigation is required.

[1] OCWR. 2020. Landfill Information Webpage. Website: http://www.oclandfills.com/landfill (accessed November 23, 2020).

This page intentionally left blank

5.0 ALTERNATIVES

5.1 INTRODUCTION

The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) include a discussion of reasonable project alternatives that would "feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant impacts of the project, and evaluate the comparative merits of the alternatives" (*State CEQA Guidelines*, Section 15126.6). This chapter identifies potential alternatives to the Cypress Town Center Project (proposed project), evaluates the potential impacts of each alternative, and compares the potential impacts of each alternative against the proposed project's impacts, as required by CEQA.

Key provisions of the *State CEQA Guidelines* on alternatives (Section 15126.6[b] through [f]) are summarized below to explain the foundation and legal requirements for the alternatives analysis in the EIR:

- The discussion of alternatives shall focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly (15126.6[b]).

- The specific alternative of 'no project' shall also be evaluated along with its impact (15126.6[e][1]). The 'no project' analysis shall discuss the existing conditions at the time the Notice of Preparation is published, and at the time the environmental analysis is commenced, as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (15126.6[e][2]).

- The range of alternatives required in an EIR is governed by the 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision-making. Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent) (15126.6[f]).

- For alternative locations, only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR (15126.6[f][2][A]).

- If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR. For example, in some cases there may be no feasible alternative locations for a geothermal plant or mining project which must be in close proximity to natural resources at a given location (15126.6[f][2][B]).

- An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative (15126.6[f][3]).

Pursuant to the guidelines stated above, a range of alternatives to the proposed project is considered and evaluated in this EIR. These alternatives were developed in the course of project planning and environmental review. The discussion in this section provides:

1. A description and analysis of impacts for each of the alternatives considered;

2. Comparative analysis of each alternative that focuses on the potentially significant environmental impacts of the proposed project (the purpose of this analysis is to determine whether alternatives are capable of further reducing the significant environmental impacts of the project to a less than significant level); and

3. Conclusions regarding the alternative's: (1) ability to avoid or substantially lessen the potentially significant impacts of the project; (2) ability to attain the project objectives (as stated below); and (3) merits compared to the merits of the proposed project.

5.2 PROPOSED PROJECT

5.2.1 Project Objectives

As discussed in Section 3.4.1, Project Objectives, in Chapter 3.0, Project Description, of this EIR, the following project objectives have been established to aid decision-makers in their review of the proposed project and its associated environmental impacts:

1. Provide new high-quality housing allowed under the Cypress Town Center and Commons Specific Plan 2.0 (Specific Plan).

2. Develop housing in close proximity to existing and future commercial, retail, and medical uses.

3. Provide uses that meet the City of Cypress' (City) General Plan balanced development goals and objectives to locate higher-density housing adjacent to commercial and employment opportunities to encourage pedestrian access and provide a consumer base for commercial uses and to help meet the existing and future housing needs of all Cypress residents.

4. Expand the City's housing supply by developing high-quality housing in the City to alleviate the housing crisis and help the City meet its Regional Housing Needs Assessment (RHNA) allocations.

5. Implement the Specific Plan, which will permit the development of new parks and multi-family residential units that are attainable housing for local families.

6. Provide pedestrian connections to adjacent parcels to provide connectivity and convenient access to the nearby existing and future commercial and retail uses.

7. Provide landscaped areas that provide passive and active recreation opportunities.

8. Provide landscaped areas to enhance the Specific Plan Area along with green infrastructure to improve stormwater quality.

5.3 ALTERNATIVES INITIALLY CONSIDERED BUT REJECTED FROM FURTHER CONSIDERATION

Section 15126.6(c) of the *State CEQA Guidelines* suggests that EIRs identify any alternatives that were considered by the Lead Agency but were rejected during the scoping process and briefly explain the reasons underlying the Lead Agency's determination. In evaluating an appropriate range of alternatives to the proposed project, a number of alternatives were considered and rejected for differing reasons by the City of Cypress.

The following is a discussion of the development alternatives considered during the environmental review process and the reasons they were not selected for detailed analysis in this Draft EIR.

5.3.1 Alternative Sites

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant impacts of the project. The key question and first step in the analysis is whether any of the significant impacts of the project would be avoided or substantially lessened by relocating the project. Only locations that would avoid or substantially lessen any of the significant impacts of the project need be considered for inclusion in the EIR (*State CEQA Guidelines*, Section 15126.6[f][2][A]). Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, General Plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the Applicant/Developer can reasonably acquire, control, or otherwise have access to the alternative site (*State CEQA Guidelines*, Section 15126.6[f][1]). If it is determined that no feasible alternative locations exist, the EIR must disclose the reasons for this conclusion (*State CEQA Guidelines*, Section 15126.6[f][2][B]).

No alternative locations where the proposed project could be undertaken are analyzed in the Draft EIR. As discussed further below, there is no other property in the City that would support a development similar to the proposed project. The surrounding area is highly urbanized, and no land is currently available for development that is large enough (approximately 7 acres) to develop the proposed project in an area that would be compatible with the proposed residential uses. In addition, the Applicant/Developer does not own or control any other property within the City or in the vicinity of the project site that would be suitable for development of the proposed project. Moreover, the Applicant/Developer cannot reasonably acquire or control an alternative site in a timely fashion that would allow for the implementation of a project with similar uses and square footage.

The following alternative sites were considered as potential alternatives to the project site, but eliminated for the reasons discussed above and below:

1) **Alternative Site within the Specific Plan Area**: The districts within the Specific Plan Area are primarily designated for single-family residential, senior housing, or public parks. The residential uses of the proposed project would be compatible with the uses intended in other districts by the Specific Plan, including the Mixed-Use Town Center/MDR District and Residential District. Although additional property may be available (such as the property west of the project site) within the same district as the proposed project (Town Center District [TCD]), relocating the proposed project west of the project site would not reduce any of the project's impacts. Additionally, one of the mixed-use districts would be too small (4.2 acres) to accommodate the proposed project. Although the second mixed-use district, located to the southwest of the project site, would be large enough (15 acres) to accommodate the proposed project, the existing Seventh-Day Adventist Church would be displaced. In addition, according to the Cypress Town Center and Commons Specific Plan 2.0, it is anticipated that no development would occur within the mixed-use districts and the Residential District until the Los Alamitos Race Course ceases operation. At this time, there is no indication that the owners of Los Alamitos Race Course intend to close this facility. Therefore, development of the proposed project within another portion of the Cypress Town Center and Commons Specific Plan 2.0 is not a feasible option.

2) **Cypress School District Property**. In July 2019, the Cypress School District (District) released a Request for Proposal (RFP) seeking proposals from qualified parties who were interested in purchasing or leasing approximately 6.2 acres of real estate at the northeast corner of Moody Street and Orange Avenue that is owned by the District and is currently used as the District's main business office and maintenance and operations facility.[1] The District has purchased an office building elsewhere in the City where it will relocate its central office and is developing plans to relocate its maintenance facilities to another site.[2] Although the Applicant/Developer participated in the District's RFP process and has expressed an interest in the reuse of the District's property, this site is infeasible for two reasons. First, the 6.2-acre District property is too small to accommodate the proposed project, which would require approximately 7 acres. Second, the current zoning classification and General Plan land use designation for the District property would not allow for the proposed project's uses. Thus, a General Plan Amendment and Zone Change would be required to accommodate the proposed project's uses. The District's property is also subject to Measure D, a land use ordinance ratified in November 1987 that requires the approval of a majority of the voters to change the zoning of the property. In summary, development of the proposed project on the District's property is not a feasible option.

---

[1] Cypress School District. 2019. Request for Proposals for the Purchase or Lease of School District Surplus Real District Property. July 17. Website: https://4.files.edl.io/6f81/07/29/19/142046-cad7a329-2195-4051-8685-a73209f28dbd.pdf (accessed December 15, 2020).

[2] Orange County Department of Education. 2019. Cypress School District Looks to Acquire New Administrative Headquarters. September 17. Website: https://newsroom.ocde.us/cypress-school-district-moves-to-acquire-new-administrative-headquarters/#:~:text=The%20Cypress%20School%20District%20has,more% 20than%2050%20years%20ago (accessed December 15, 2020).

3) **Lincoln Avenue Specific Plan**. The Lincoln Avenue Specific Plan covers the area along Lincoln Avenue between Buena Park on the east and Hawaiian Gardens on the west. The Lincoln Avenue Specific Plan established a comprehensive master plan and regulatory framework to guide development in this specific plan area. The majority of the available parcels within this plan area are not large enough to accommodate the proposed project. Of the large parcels that would be of sufficient size to allow for a residential development of the proposed project's size and density, all are currently developed and not for sale. Therefore, the Applicant/Developer does not own or control any of the properties in the Lincoln Avenue Specific Plan. The property site is designated for residential uses in the Lincoln Avenue Specific Plan. However, this site is not a viable alternative site for the proposed project.

4) **Potential Candidate Housing Sites for the City's Housing Element Update.** The City is currently in the process of preparing an update to the Housing Element of its General Plan. The Housing Element is the City's chief housing policy document and is required to identify sufficient land with the ability to accommodate the number of new housing units included in the City's Sixth Cycle Regional Housing Needs Assessment (RHNA) allocation for the 2021 through 2029 planning period. The Southern California Association of Governments (SCAG) has assigned a draft RHNA allocation of 3,927 units to Cypress for the 2021–2029 planning period; however, this allocation is under appeal. Because the City's Sixth Cycle RHNA allocation is more than ten times larger than its Fifth Cycle RHNA allocation, rezoning and upzoning would be required. While the Housing Element update will identify candidate sites for rezoning/upzoning and discuss why such sites may be appropriate, the City is still developing a list of these candidate sites. Without knowing the specific locations of the candidate sites and the housing densities that would be included in the Housing Element Update, it would be purely speculative to evaluate the development of the proposed project on any other potential sites in the City.

Development of the proposed project at an alternative site (assuming one was available) could potentially result in some environmental impacts that would be similar to or greater than those of the proposed project's environmental impacts, depending on the proximity of the alternative site to sensitive uses. Conversely, given that the project site is located in a highly urbanized area, it is unlikely that relocating the proposed project to another site would substantially lessen any of its impacts.

As such, no alternative sites were considered feasible because, as discussed above, the Applicant/Developer does not own or control another project site in the City, no suitable alternative site is available that would achieve the underlying purpose and objectives of the proposed project, and development of the proposed project on an alternative site would likely result in many of the same environmental impacts as development of the proposed project on the project site. For these reasons, the alternative sites option was rejected from further consideration.

5.4 ALTERNATIVES UNDER CONSIDERATION

Section 21100 of the Public Resources Code (PRC) and Section 15126 of the *State CEQA Guidelines* require an EIR to identify and discuss a No Project Alternative and a reasonable range of alternatives to the proposed project that would feasibly attain most of the basic objectives of the project and

would avoid or substantially lessen any of the significant environmental impacts. Based on the criteria listed above, the following two alternatives have been determined to represent a reasonable range of alternatives that have the potential to feasibly attain most of the basic objectives of the proposed project but that may avoid or substantially lessen any of the significant impacts of the proposed project. Therefore, the alternatives considered in this EIR include the following:

- **Alternative 1: No Project Alternative:** CEQA requires analysis of a "No Project" Alternative. The purpose of describing and analyzing a no project alternative is to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. According to *State CEQA Guidelines* Section 15126.6(e)(3)(C), the lead agency should proceed to analyze the impacts of the no project alternative by projecting what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. The No Project Alternative assumes that the project site would remain in the same condition as it was at the time the Notice of Preparation (NOP) was published and no new development of any kind would occur on the project site. The project site would remain a paved parking lot that would continue to be used for vehicle parking during events at the nearby Los Alamitos Race Course.

- **Alternative 2: Reduced Project Alternative.** The Reduced Project Alternative includes a residential development on the project site with the same multi-family residential uses as the proposed project, but with a 30 percent reduction in the number of units. The Reduced Project Alternative includes the construction of 94 residential units at a density of 13.42 dwelling units per acre (du/acre) on the approximately 7-acre project site. The residential units would include a combination of two-story condominium buildings arranged around motor courts and three-story row townhomes, similar to the proposed project. The Reduced Project Alternative would have the same basic building footprint, architecture, open space areas, and vehicular access as the proposed project. The Reduced Project Alternative would include 232 total private community parking spaces, exceeding the minimum number of parking spaces set forth by the Specific Plan.

For the purpose of this analysis, it is assumed that all of the alternatives would comply with applicable federal, State, and local regulations, policies, and ordinances. The alternatives are further described below and their potential impacts compared to those of the proposed project.

5.5 ALTERNATIVES ANALYSIS

5.5.1 Aesthetics

The City is almost entirely developed and there are no designated scenic corridors, scenic vistas, or scenic highways within the City. The project site is also located within an urbanized area. The proposed project would be consistent with the Specific Plan design guidelines for the project site. No Specific Plan Amendment, General Plan Amendment, or zone change would be required for project implementation. Additionally, the proposed project's building heights are similar to and compatible with the commercial, office, and business park uses that surround the project site. Therefore, impacts related to degradation of existing visual character or quality would be less than significant. Construction-related illumination during evening and nighttime hours would be used for

safety and security purposes only. In addition, although the proposed project would increase the overall intensity of on-site land uses and associated lighting, lighting would comply with all applicable lighting standards in the Cypress Zoning Ordinance and would not result in substantial increases in light intensity at off-site locations. The materials of the proposed buildings would primarily be non-reflective to minimize glare. Therefore, impacts related to light and glare would be less than significant. No mitigation would be required.

5.5.1.1 Alternative 1: No Project Alternative

The No Project Alternative would not require any grading, site work, or removal of vegetation because no new development would occur on the project site. In addition, no buildings would be constructed on the project site. As such, the proposed project would result in no impacts to scenic vistas or scenic highways. The project site is currently developed with a parking lot, which produces light and glare from the on-site light poles and vehicles utilizing the parking lot in the evenings. However, because the No Project Alternative would not include construction activities, construction of new buildings, or intensification of the on-site lighting sources, the No Project Alternative would not result in impacts related to visual character or quality or light and glare. Therefore, aesthetic impacts would be less than for the proposed project.

5.5.1.2 Alternative 2: Reduced Project Alternative

The Reduced Project Alternative would develop the project site with a residential development similar to the proposed project, but with a reduced density. There are no scenic corridors, scenic vistas, or scenic highways within the City; therefore, like the proposed project, the Reduced Project Alternative would not result in impacts to scenic vistas or scenic highways. Similar to the proposed project, the Reduced Project Alternative would be consistent with the Specific Plan design guidelines for the project site and no Specific Plan Amendment, General Plan Amendment, or zone change would be required for project implementation. Additionally, the building heights would be similar to and compatible with the commercial, office, and business park uses that surround the project site. The Reduced Project Alternative would reduce the overall scale of the proposed project. Therefore, impacts related to degradation of existing visual character or quality would be less than significant and less than the proposed project. Like the proposed project, construction-related illumination during evening and nighttime hours would be used for safety and security purposes only. In addition, similar to the proposed project, lighting would comply with all applicable lighting standards in the Cypress Zoning Ordinance and would not result in substantial increases in light intensity at off-site locations. The materials of the proposed buildings would primarily be non-reflective to minimize glare. Therefore, impacts related to light and glare would be less than significant. However, the Reduced Project Alternative would result in a smaller project overall compared to the proposed project and would therefore result in aesthetic impacts that are less than the proposed project.

5.5.2 Air Quality

Air quality emissions associated with construction and operation of the proposed project would not exceed South Coast Air Quality Management District (SCAQMD) significance thresholds. Therefore, impacts of the proposed project related to the cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under applicable National Ambient Air Quality Standards (NAAQS) or California Ambient Air Quality Standards (CAAQS) would be less than

significant. The proposed project would not exceed SCAQMD localized significance thresholds (LSTs); therefore, impacts related to exposure of sensitive receptors would be less than significant. The proposed project is consistent with the SCAQMD Final 2016 Air Quality Management Plan (AQMP) because (1) the construction and operation emissions of the proposed project would not exceed the regional significance thresholds or cause or contribute to NAAQS or CAAQS violations, and (2) increases in population and housing resulting from the proposed project would not represent a substantial increase in population growth. Therefore, impacts related to conflict or obstruction of implementation of the applicable air quality plan would be less than significant. Finally, odors would be limited to odors generated during construction and operational odors from trash receptacles, which would be confined to the immediate vicinity of the project site and minimized by SCAQMD odor regulations and lids on trash receptacles. Therefore, impacts related to odors would be less than significant. No mitigation is required.

5.5.2.1 Alternative 1: No Project Alternative

The No Project Alternative would not require grading or construction and would not change the existing on-site use or increase vehicle trips to and from the project site. Therefore, no additional air pollutant emissions related to grading, construction, additional vehicle trips, and operational uses would be generated under this alternative, and no air quality impacts would occur. During operation, fewer emissions would be generated (primarily from the reduced vehicle trips) compared to the proposed project, and no construction emissions would occur. As such, the No Project Alternative's impacts on air quality would be less than the air quality impacts associated with the proposed project.

5.5.2.2 Alternative 2: Reduced Project Alternative

The Reduced Project Alternative would develop the project site with a residential development similar to the proposed project, but at a reduced density. A similar grading footprint but less construction would be required for the Reduced Project Alternative compared to the proposed project; therefore, construction emissions would be less than the proposed project and less than significant. The Reduced Project Alternative would generate fewer vehicle trips than the proposed project because there would be fewer residential units on the project site. Therefore, this alternative would result in fewer residents and guests to the project site. As a result, emissions generated during operation of the Reduced Project Alternative would be less than the proposed project and would not exceed the SCAQMD thresholds. As such, air quality impacts of the Reduced Project Alternative would be less than significant and less than the proposed project.

5.5.3 Biological Resources

The project site only contains a small amount of ornamental vegetation along the existing segment of Vessels Circle to the east of the project site and along the northern edge of the project site adjacent to the Los Alamitos Race Course parking lot. The project site is developed with an asphalt-paved parking lot and does not support special-status species, riparian habitat, or wetlands and is not subject to a Natural Communities Conservation Plan/Habitat Conservation Plan (NCCP/HCP). Therefore, the proposed project would not result in impacts to special-status species, riparian habitat, wetlands, or NCCP/HCPs. The proposed project would avoid impacts on nesting resident and/or migratory birds either by avoiding vegetation removal during the avian nesting season or by

implementing a regulatory compliance measure, which addresses any impacts to nesting resident and/or migratory birds should it be necessary to conduct vegetation removal during the nesting season and nests are present. Therefore, impacts to wildlife movement and wildlife corridors would be less than significant. None of the trees on the project site are designated as Landmark Trees. In addition, work on street trees would be done in accordance with the City Council's adopted Parkway Tree Policy; therefore, impacts to local street trees would be less than significant. No mitigation is required.

5.5.3.1 Alternative 1: No Project Alternative

The No Project Alternative would not require any grading, site work, or removal of vegetation because no new development would occur on the project site. In addition, no buildings would be constructed on the project site. Because the No Project Alternative would not involve construction activities or removal of the on-site vegetation, no impacts to biological resources would occur. Therefore, impacts to biological resources would be less than significant and less than that of the proposed project.

5.5.3.2 Alternative 2: Reduced Project Alternative

The Reduced Project Alternative would develop the project site with a residential development similar to the proposed project, but at a reduced density. As stated above, the project site is developed with an asphalt-paved parking lot and does not support special-status species, riparian habitat, or wetlands and is not located within an NCCP/HCP. Therefore, the Reduced Project Alternative would not result in impacts to special-status species, riparian habitat, wetlands, or NCCP/HCPs. Similar to the proposed project, the Reduced Project Alternative would avoid impacts on nesting resident and/or migratory birds either by avoiding vegetation removal during the avian nesting season (February 1 through August 31) or by implementing the same regulatory compliance measure, which would address any impacts to nesting resident and/or migratory birds should it be necessary to conduct vegetation removal during the nesting season and nests are present. Therefore, impacts to wildlife movement and wildlife corridors would be less than significant. None of the trees on the project site are designated as Landmark Trees. In addition, work on street trees would be done in accordance with the City Council's adopted Parkway Tree Policy; therefore, impacts to local street trees would be less than significant. Because the same grading footprint would be required compared to the proposed project, and construction would occur on the same project site footprint, impacts to biological resources would be similar to the proposed project.

5.5.4 Cultural Resources

The South Central Coastal Information Center (SCCIC) record search results identified no previously recorded cultural resources on or in soils on the project site. Therefore, the proposed project would not cause a substantial adverse change in the significance of a historical resource. The majority of project grading/over-excavation would occur in artificial fill and only trenching activities for utilities would take place entirely in previously undisturbed sediments with potential to encounter subsurface archaeological resources from either the pre-contact or historic periods. Implementation of mitigation would reduce any potential impacts of the proposed project on the significance of cultural resources to a less than significant level by requiring monitoring by a qualified archaeologist during trenching activities for utilities and prescribing procedures for treatment of cultural resources

during grading and or excavation activities. No human remains are known to be on the project site or are anticipated to be discovered during project construction. However, there is always a possibility of encountering unanticipated cultural resources, including human remains. Compliance with the State's Health and Safety Code for the treatment of human remains would address the impact of the proposed project on human remains, and any impact would be considered less than significant.

5.5.4.1 Alternative 1: No Project Alternative

The No Project Alternative would not require any grading or site work because no new development would occur on the project site. In addition, no buildings would be constructed on the project site. Therefore, the proposed project would not cause a substantial adverse change in the significance of a historical resource. Further, the No Project Alternative would not have the potential to disrupt human remains or result in the discovery of previously unknown archaeological resources. No impacts related to cultural resources would occur; therefore, the impacts of the No Project Alternative would be less than that of the proposed project.

5.5.4.2 Alternative 2: Reduced Project Alternative

Similar to the proposed project, the Reduced Project Alternative would not cause a substantial adverse change in the significance of a historical resource as defined by CEQA because no previously recorded historical resources were identified in the project site. The Reduced Project Alternative would develop the project site with a residential development similar to the proposed project, but with a reduced density, and would require similar ground-disturbing construction activities. Similar to the proposed project, under the Reduced Project Alternative, the majority of project grading/over-excavation would occur in artificial fill and only trenching activities for utilities would take place entirely in previously undisturbed sediments with potential to encounter subsurface archaeological resources from either the pre-contact or historic periods. The Reduced Project Alternative would be required to implement the same mitigation measure to reduce any potential impacts of the proposed project on the significance of cultural resources to a less than significant level by requiring monitoring by a qualified archaeologist during trenching activities for utilities and prescribing procedures for treatment of cultural resources during grading and or excavation activities. The Reduced Project Alternative would also be required to comply with Health and Safety Code Section 7050.5, which would reduce potentially significant impacts to previously undiscovered buried human remains. Implementation of this mitigation and adherence to regulatory standards would address potential impacts related to cultural resources. Because the Reduced Project Alternative would result in similar ground disturbing construction activities, impacts to cultural resources would be similar to the proposed project.

5.5.5 Energy

Project construction would consume diesel fuel and gasoline. Additionally, project operation would increase electricity usage, natural gas demand, and would increase fuel used for vehicle trips associated with the proposed project. Although project construction and operation would require using energy, the proposed project would comply with the Title 24 building energy efficiency standards. Additionally, the proposed project would develop housing in close proximity to existing and future commercial and retail uses. The nearby transit facilities and proposed improvements to

the pedestrian network would support public transit use and walking and bicycling. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources, or conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Therefore, energy impacts would be less than significant, and no mitigation is required.

5.5.5.1 Alternative 1: No Project Alternative

The No Project Alternative would not require any grading or site work because no new development would occur on the project site. In addition, no buildings would be constructed on the project site. Existing energy usage levels for on-site lighting would remain the same as for existing conditions. Therefore, the No Project Alternative would not increase energy demand on the project site. No energy impacts would occur; therefore, energy impacts of the No Project Alternative would be less than that of the proposed project.

5.5.5.2 Alternative 2: Reduced Project Alternative

The Reduced Project Alternative would develop the project site with a residential development similar to the proposed project, but at a reduced density. A similar grading footprint but less construction would be required for the Reduced Project Alternative compared to the proposed project; therefore, energy use during construction would be less than the proposed project. Like the proposed project, the Reduced Project Alternative would meet the Title 24 building energy efficiency standards. Like the proposed project, the Reduced Project Alternative would develop housing in close proximity to existing and future commercial and retail uses and would be supported by the pedestrian network and nearby transit facilities, which would reduce dependency on personal vehicles. Therefore, the Reduced Project Alternative would not result in the wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a state or local plan for renewable energy or energy efficiency; therefore, impacts related to energy use would be less than significant. However, because the Reduced Project Alternative includes less development than the proposed project and would generate fewer vehicle trips compared to the proposed project, consumption of natural gas, electricity, and fuel during operation would be less than the proposed project. Therefore, energy impacts would be less than significant and less than the proposed project.

5.5.6 Geology and Soils

The proposed project would not result in any impacts related to rupture of a known earthquake fault, landslides, subsidence, or septic tanks and alternative wastewater disposal systems. Potential impacts related to landslides and unstable slopes, lateral spreading, and expansive soils would be less than significant, and no mitigation is required. Impacts related to strong seismic ground shaking, liquefaction, compressible/collapsible soils, and wet soils are considered potentially significant, and mitigation is required. The proposed project would be designed and constructed to conform to the current seismic design provisions of the California Building Code and the City's Municipal Code. Additionally, mitigation measures require compliance with the recommendations in the project's Geotechnical Assessment and stipulate appropriate seismic design provisions that shall be implemented with project design and construction. Ground stabilization recommendations in the Geotechnical Assessment would be implemented during grading and construction to address soft ground conditions due to shallow groundwater. With implementation of mitigation, all potentially

significant impacts related to soils and geology would be less than significant. During project construction activities, soil would be exposed and disturbed, and drainage patterns would be temporarily altered during grading and other construction activities; however, Erosion Control Best Management Practices (BMPs) and Sediment Control BMPs would be implemented during construction in compliance with the requirements of the Construction General Permit to ensure that impacts related to erosion would be less than significant.

Soils on the project site have no or low paleontological sensitivity from the surface to a depth of 10 feet (ft) and high sensitivity below a depth of 10 ft; with a maximum depth of less than 10 ft for excavation, the proposed project is expected to remain in deposits with no or low paleontological sensitivity. However, the proposed project requires implementation of mitigation, which requires work in the immediate area of the discovery to be halted and a qualified paleontologist contacted to assess the discovery in the event that paleontological resources are encountered during construction. These measures would reduce potentially significant impacts to paleontological resources to less than significant.

5.5.6.1 Alternative 1: No Project Alternative

The No Project Alternative would not require any grading or site work because no new development would occur on the project site. In addition, no buildings would be constructed on the project site. Therefore, the No Project Alternative would have no impacts related to geology and soils, and this alternative would have less geology and soils impacts than the proposed project.

5.5.6.2 Alternative 2: Reduced Project Alternative

The Reduced Project Alternative would develop the project site with a residential development similar to the proposed project, but at a reduced density. A similar grading footprint would be required compared to the proposed project. The required grading and construction activities would result in similar impacts related to geology and soils as the proposed project because the Reduced Project Alternative would require similar construction activities. As with the proposed project, the Reduced Project Alternative would be designed and constructed to conform to the current seismic design provisions of the California Building Code and the City's Municipal Code. In addition, this alternative would implement the same mitigation measures as the proposed project, which requires compliance with the recommendations in the project's Geotechnical Assessment and compliance with procedures for unexpected paleontological resource discoveries. Therefore, like the proposed project, the Reduced Project Alternative would have less than significant impacts related to geology and soils with implementation of mitigation. Given the similar footprint and construction activities, the geology-related impacts of the Reduced Project Alternative would be similar to the proposed project.

5.5.7 Greenhouse Gas Emissions

The proposed project would be designed in compliance with adopted regulations aimed at reducing greenhouse gas (GHG) emissions. Specifically, the project would meet the latest Title 24 standards of the California Code of Regulations. The proposed project is estimated to result in GHG emissions of 1,513.3 metric tons of carbon dioxide equivalent per year (MT of CO_2e/yr), which would not exceed the SCAQMD Tier 3 GHG numerical screening threshold of 3,500 MT CO_2e/yr. Thus, project-

related emissions would have a less than significant impact related to the generation of GHG emissions. The proposed project would also be consistent with applicable plans adopted for the purpose of reducing GHG emissions including the California Air Resources Board's (CARB) Scoping Plan and the Southern California Association of Governments' (SCAG) 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Therefore, the proposed project would not conflict with an adopted plan, policy, or regulation pertaining to GHG emissions, and impacts would be considered less than significant. No mitigation is required.

5.5.7.1 Alternative 1: No Project Alternative

The No Project Alternative would not require any grading or site work because no new development would occur on the project site. In addition, no buildings would be constructed on the project site. Therefore, the No Project Alternative would not increase GHG emissions from new on-site uses or additional vehicle trips. No impacts related to GHG emissions would occur; therefore, GHG emission impacts of the No Project Alternative would be less than that of the proposed project.

5.5.7.2 Alternative 2: Reduced Project Alternative

The Reduced Project Alternative would develop the project site with a residential development similar to the proposed project, but at a reduced density. A similar grading footprint but less construction would be required for the Reduced Project Alternative compared to the proposed project; therefore, GHG emissions during construction would be less than the proposed project. Because the Reduced Project Alternative includes less development and would generate fewer vehicle trips than the proposed project, GHG emissions during operation would be less than the proposed project. Therefore, similar to the proposed project, the Reduced Project Alternative's GHG emissions would not exceed the SCAQMD's Tier 3 GHG numerical screening threshold of 3,500 MT CO_2e/yr. Additionally, because the Reduced Project Alternative would be similar to the proposed project, the Reduced Project Alternative would also be consistent with applicable plans adopted for the purpose of reducing GHG emissions. Therefore, the Reduced Project Alternative would not conflict with an adopted plan, policy, or regulation pertaining to GHG emissions, and impacts are considered less than significant. Because the Reduced Project Alternative includes less development and would generate fewer vehicle trips than the proposed project, impacts related to GHG emissions would be less than the proposed project.

5.5.8 Hazards and Hazardous Materials

The proposed project would result in no impacts related to the physical interference with an adopted emergency response plan or related to the risk of loss, injury, or death involving wildland fires. Impacts related to upset of hazardous materials, emission or handling of hazardous materials in the vicinity of a school, hazardous materials sites, and safety hazards within airport land use plans would be less than significant, and no mitigation is required. Construction and operation activities on the project site would involve transport, use, and disposal of small quantities of hazardous materials or wastes. Adopted regulations and procedures are in place to minimize impacts related to use and disposal of household hazardous waste associated with project construction and operation. During construction, BMPs would be implemented to reduce risk of spills of hazardous materials. Conditions of approval, which specify that the Orange County Fire Authority (OCFA) would review the project, would be applied to the proposed project to reduce operational hazardous material

impacts and ensure that any hazardous waste that is generated on site would be transported to an appropriate disposal facility by a licensed hauler in accordance with State and federal law. Additionally, the proposed project would comply with all appropriate Federal Aviation Administration (FAA) standards and requirements and the FAA would review the height of the proposed buildings to ensure that no aviation hazards would occur. Adherence to regulatory standards would ensure that impacts related to the transport, use, and disposal of hazardous materials would be less than significant, and no mitigation is required.

5.5.8.1 Alternative 1: No Project Alternative

The No Project Alternative would not require any grading or site work because no new development would occur on the project site. In addition, no buildings would be constructed on the project site. Because no construction activities would occur, no construction impacts related to hazardous materials would occur. The project site would remain a paved parking lot that would continue to be used for temporary uses, such as vehicle parking. Small amounts of hazardous materials may be used on the project site and parked vehicles may release small amounts of oil due to engine leaks; however, the No Project Alternative would not increase the use of hazardous materials because the on-site use would remain the same. In addition, hazardous materials, including any leaked engine oil, would be handled in accordance with State and federal law. The No Project Alternative would not require transport or handling of hazardous materials during construction and operational use of hazardous materials would continue to be limited due to the lack of development and temporary use of the project site. Therefore, no impacts related to hazardous materials would occur, and impacts related to hazardous materials would be less than that of the proposed project.

5.5.8.2 Alternative 2: Reduced Project Alternative

The Reduced Project Alternative would develop the project site with a residential development similar to the proposed project, but at a reduced density. The Reduced Project Alternative would involve demolition of the existing parking lot and construction of new buildings that would result in similar impacts related to hazardous waste and materials compared to the proposed project. Construction and operation activities on the project site would involve transport, use, and disposal of small quantities of hazardous materials or wastes. Adopted regulations and procedures are in place to minimize impacts related to use and disposal of household hazardous waste associated with construction and operational activities. During construction, BMPs would be implemented to reduce risk of spills of hazardous materials. Conditions of approval specifying that OCFA review would be required would be applied, similar to the proposed project, to reduce operational hazardous material impacts and ensure that any hazardous waste that is generated on site would be transported to an appropriate disposal facility by a licensed hauler in accordance with State and federal law. Similar to the proposed project, the Reduced Project Alternative would comply with all appropriate FAA standards and requirements and the FAA would review the height of the proposed buildings to ensure that no aviation hazards would occur. Adherence to regulatory standards would ensure that impacts related to the transport, use, and disposal of hazardous materials would be less than significant and similar to that of the proposed project.

5.5.9 Hydrology and Water Quality

Construction of the proposed project would disturb soil and increase erosion and the risk of spills, which would increase the potential for pollutants to be transported via stormwater runoff into receiving waters. The proposed project would comply with the Construction General Permit and implement a Stormwater Pollution Prevention Plan (SWPPP) and BMPs during construction to address pollutants of concern and to ensure protection of beneficial uses of receiving waters. A comprehensive Water Quality Management Plan (WQMP) and BMPs would be implemented during operation to address pollutants of concern and to ensure protection of beneficial uses of receiving waters. The water quality impacts of the proposed project would be less than significant upon compliance with existing plans, programs, and policies in place to ensure compliance with National Pollutant Discharge Elimination System (NPDES) regulations. No mitigation is required.

The proposed project would not increase impervious area on the project site and would therefore not result in a net increase in stormwater runoff. An on-site detention system would restrict runoff from the proposed site to 0.3 cubic-foot per second per acre (cfs/acre) (or 2.1 cfs for the project site), a substantial reduction from the existing condition. The project would also install bioswales adjacent to the off-site Vessels Circle extension, which would allow for stormwater infiltration and reduce runoff in comparison to existing conditions. Additionally, downstream receiving waters are not susceptible to hydromodification. Therefore, the proposed project would not increase downstream erosion or siltation impacts. For these reasons, impacts related to substantial on-site, off-site, or downstream erosion or siltation would be less than significant, and no mitigation is required. Groundwater dewatering during construction would be localized and temporary, and the volume of groundwater removed would not be substantial. Project operation would not require groundwater extraction and would not substantially change infiltration. The groundwater impacts of the proposed project would be less than significant, and no mitigation is required.

Although the project would construct new structures in an inundation zone, the proposed project would not increase the chance of inundation from failure of Carbon Canyon Dam or Prado Dam. Therefore, project impacts related to the exposure of people and structures to significant risk associated with flooding as a result of dam failure would be less than significant. The proposed project would result in no impacts related to increases in impervious surface area, environmentally sensitive areas, or aquatic, wetland, or riparian habitat, and no mitigation is required.

5.5.9.1 Alternative 1: No Project Alternative

The No Project Alternative would not require any grading or site work because no new development would occur on the project site. Therefore, no soil disturbance would occur under this alternative, and there would be no construction impacts on water quality. The No Project Alternative would not change impervious surface areas, add new uses or structures, or change stormwater runoff on the project site compared to existing conditions. However, no operational BMPs would be implemented, and the drainage improvements and reduction in runoff that would occur under the proposed project would not occur under the No Project Alternative. Although the No Project Alternative would have no hydrology and water quality impacts compared to existing conditions, this alternative would have similar impacts to the proposed project because it would not include implementation of BMPs, drainage infrastructure, or detention systems.

5.5.9.2 Alternative 2: Reduced Project Alternative

The Reduced Project Alternative would develop the project site with a residential development similar to the proposed project, but at a reduced density. Because the Reduced Project Alternative would be constructed on the same project site as the proposed project, the same soil disturbance would occur during construction. In addition, the impervious surface area on the project site would be similar to the proposed project. Also similar to the proposed project, the implementation of BMPs during the construction and operation phases would ensure that this alternative would not generate significant water quality impacts. The Reduced Project Alternative would also implement drainage infrastructure and detention systems to reduce peak flow from the peak discharges from the project site in compliance with City discharge requirements for the project site. The Reduced Project Alternative would have less than significant impacts on hydrology and water quality, and this alternative would have similar impacts to those associated with the proposed project.

5.5.10 Land Use and Planning

The proposed project would not divide an existing community. The proposed project would be consistent with the development requirements outlined in the Specific Plan. The Specific Plan does not include any applicable goals or policies. The proposed project would be consistent with all applicable policies in the 2020–2045 RTP/SCS and the City's General Plan. The project site's zoning designation was amended to "PC (Planned Community)" with the approval of the Cypress Town Center and Commons Specific Plan 2.0 ballot measure, which allows for development as permitted under the Specific Plan. The project does not propose any amendments to the City's General Plan, the Specific Plan, or the City's Zoning Ordinance. Therefore, the proposed project would result in less than significant impacts related to potential conflicts with applicable land use plans, policies, and regulations, and no mitigation is required.

5.5.10.1 Alternative 1: No Project Alternative

No development would occur on the project site under the No Project Alternative. The project site would remain a paved parking lot. The No Project Alternative would not be consistent with the Specific Plan land use designation of Town Center District (TCD) or the zoning designation of PC (Planned Community). Additionally, the No Project Alternative would not be consistent with the City's goals or the Specific Plan, which envisions buildout of the Specific Plan area with a mixed-use, sustainable community. Therefore, impacts to land use would be greater than those of the proposed project.

5.5.10.2 Alternative 2: Reduced Project Alternative

The Reduced Project Alternative would develop the project site with a residential development similar to the proposed project but at a reduced density. Like the proposed project, the Reduced Project Alternative would not divide an existing community and would be consistent with the development requirements outlined in the Specific Plan. Because of the similar proposed use, the Reduced Project Alternative would be consistent with the goals and policies of the 2020–2045 RTP/SCS and the City's General Plan, for the same reasons as the proposed project. Therefore, the Reduced Project Alternative would result in less than significant impacts related to potential conflicts with applicable land use plans, policies, and regulations. Land use impacts of the Reduced Project Alternative would be similar to the proposed project.

5.5.11 Noise

The construction noise, construction vibration, or off-site operational traffic noise levels would not exceed City noise level standards or the Federal Transit Administration (FTA) community annoyance thresholds for vibration. Therefore, construction noise impacts would be less than significant, and no mitigation is required. Long-term off-site traffic noise levels would remain lower than applicable noise standards. Therefore, the proposed project's long-term off-site traffic noise impacts would be less than significant. Operation of the proposed project would require the use of rooftop heating, ventilation, and air conditioning (HVAC) units for the proposed buildings. Noise generated from HVAC units could impact sensitive receptors within the vicinity of the project site by exceeding the City's daytime and nighttime exterior noise standard. However, noise levels from HVAC equipment would be minimized with compliance with Section 3.11.100(b) in the City's Municipal Code, which requires that mechanical equipment in residential, commercial, and industrial zoning districts be enclosed within a structure or completely screened from the view of surrounding properties by the use of a fence or wall, as well as compliance with the noise standards stated in Sections 13-68 and 13-69 of the City's Municipal Code. Therefore, noise and vibration impacts would be less than significant, and no mitigation is required. Additionally, aircraft noise generated from the two closest airports, which are located 0.5 mile and 5.5 miles from the project site, would not expose people residing or working on the project site to excessive noise levels due to the proximity of a public airport because the project site is located outside the 65 A-weighted decibel community noise equivalent level (dBA CNEL) noise contours for those airports. Airport noise impacts would be less than significant.

5.5.11.1 Alternative 1: No Project Alternative

The No Project Alternative would not involve any grading, construction, vehicle, or truck trips. Therefore, the noise impacts that are typically associated with grading and construction would not occur under this alternative. Because no development would be constructed under the No Project Alternative and vehicle trips would not increase, there would be no increase in noise levels. Therefore, the No Project Alternative would have no noise impacts, and this alternative would have less noise impacts than the proposed project.

5.5.11.2 Alternative 2: Reduced Project Alternative

The Reduced Project Alternative would involve a grading footprint and construction activities similar to the proposed project; however, the Reduced Project Alternative would require less construction due to the reduced number of units. Therefore, this alternative would result in less construction noise impacts associated with construction than the proposed project. In addition, the construction period may be a shorter duration due to the decreased density. Construction noise impacts would be less than significant and less than the proposed project.

Under this alternative, like the proposed project, operational noise would include vehicular noise associated with traffic related to the occupancy and operation of the new residential development. However, because fewer residential units would be constructed under the Reduced Project Alternative, these operational noise levels would be reduced. Additionally, the Reduced Project Alternative would result in fewer vehicle trips than then proposed project due to the reduced number of units. Therefore, operational noise associated with vehicle trips would be reduced. The

Reduced Project Alternative would also include HVAC units on the buildings, which could impact sensitive receptors within the vicinity of the project site by exceeding the City's daytime and nighttime exterior noise standard, and they would be required to comply with the same sections in the City's Municipal Code as the proposed project. Therefore, the Reduced Project Alternative would have less than significant noise impacts with adherence to regulations and standard conditions, and this alternative would have less impacts than the proposed project.

5.5.12 Population and Housing

The project site is currently a paved parking lot; therefore, the proposed project would not displace any existing housing or populations on the project site. The proposed project includes the development of 135 dwelling units, which is estimated to generate approximately 408 new residents. The addition of 408 new residents represents an increase of approximately 0.83 percent over the City's existing population of 49,272 as of January 2020. The additional 135 units represent an increase of approximately 0.81 percent over the number of existing households of 16,631 as of January 2020. Because the Specific Plan had already been approved by Cypress voters by the time SCAG developed its growth forecast, the proposed project's population and housing increases have already been included in the 2020–2045 RTP/SCS Final Growth Forecasts. The estimated increase in population from the proposed project accounts for 24 percent of the City's projected population growth from 2016 to 2045 and 16.9 percent of the City's projected household growth from 2016 to 2045. The increases in population and housing resulting from the proposed project would be less than significant because they have already been accounted for in SCAG's growth forecast and would, therefore, not represent a substantial unplanned increase in population.

Additionally, according to the RHNA Draft Allocations sent on September 4, 2020, the City of Cypress has a total estimated RHNA of 3,927 units (1,147 Very Low Income, 656 Low Income, 622 Moderate Income, and 1,502 Above Moderate Income). Therefore, the total RHNA for the City of Cypress would be substantially larger than the projected housing growth included in the Connect SoCal plan growth forecasts that indicate the City's housing is projected to increase by 800 units from 2016 to 2045. The market-rate housing units included in the proposed project would help the City meet the need for the Above Moderate Income units included in the 6th cycle RHNA allocation. Because there is a need for additional housing over SCAG projections and the City is required by State law (Government Code Section 65580, et seq.) to plan for its fair share of the projected housing construction needs in the region, the population growth as a result of the proposed project would not constitute substantial unplanned population growth in the area. Therefore, the proposed project's impact on population growth would be less than significant, and no mitigation is required.

5.5.12.1 Alternative 1: No Project Alternative

No development would occur on the project site under the No Project Alternative. The project site would remain a paved parking lot, and no housing or populations would be displaced. The No Project Alternative would not include housing and would not increase the population in the City, so it would not induce substantial population growth. In comparison, the proposed project would result in a direct, though not substantial, increase in population within the project area. Therefore, the No Project Alternative would have less impact than the proposed project. However, unlike the

proposed project, the No Project Alternative would not help the City meet the need for above moderate-income units included in its RHNA allocation.

5.5.12.2 Alternative 2: Reduced Project Alternative

The Reduced Project Alternative would develop the project site with a residential development similar to the proposed project, but at a reduced density. The Reduced Project Alternative would include 94 residential units, which would generate approximately 284 new residents. The 284 new residents represent a 0.58 percent increase over the City's existing population as of January 2020 and the 94 new residential units would represent a 0.57 percent increase over the number of existing households in the City as of January 2020. Similar to the proposed project, the increases in population and housing resulting from the Reduced Project Alternative would have already been included in the 2020–2045 RTP/SCS Final Growth Forecasts because the Specific Plan had already been approved by Cypress voters by the time SCAG developed its growth forecast and the increase in population and housing growth would be within growth projections.

Additionally, the housing units included in the Reduced Project Alternative would help the City meet the need for above moderate-income units included in the City's RHNA allocation. Because there is a need for additional housing over SCAG projections as the City is required by State law to plan for its fair share of the region's projected housing construction needs, the population growth as a result of the Reduced Project Alterative would not constitute substantial unplanned population growth in the area. Therefore, like the proposed project, the Reduced Project Alternative's direct impact on population growth would be less than significant. However, because the Reduced Project Alternative would include less housing than the proposed project, and would therefore result in less population growth, impacts would be less than the proposed project. In comparison to the proposed project, the Reduced Project Alternative would result in fewer residential units and would therefore contribute less to helping the City meet its need for above moderate-income units included in its RHNA allocation.

5.5.13 Public Services

The proposed project would incrementally increase demand for fire protection and emergency service calls. However, the OCFA requests that the Applicant/Developer enter into a Secured Fire Protection Agreement with the OCFA to ensure that adequate fire protection service is available for the project site. In addition, the OCFA would review and comment on the site plan prior to approval and impose standard conditions of approval that would reduce operational impacts to less than significant. The population and housing growth anticipated as a result of the proposed project would also incrementally increase demand for police protection and emergency service calls. Although there may be an incremental increase in calls for service related to new residents, the related population growth would not be considered substantial. Therefore, impacts related to police protection services would be less than significant. The proposed project's 135 residential units could generate approximately 68 elementary school students and 27 middle/high school students, which would increase the demand for school services. However, the Applicant/Developer would be required to pay school fees to reduce any impacts on school services. With payment of the required fees, impacts to schools would be less than significant. The incremental increase in demand for park facilities created by the proposed project's 135 residential units would result in limited use of

existing recreation facilities in the project vicinity. However, per City requirements, the Applicant/Developer would be required to pay fees and/or dedicate parkland. With the payment of in-lieu park fees and/or the dedication of parkland, impacts related to parks would be less than significant. Finally, the Cypress Branch Library has sufficient capacity to accommodate the additional population growth associated with the proposed project and library impacts would be less than significant. In conclusion, impacts to public services would be less than significant. No mitigation is required.

5.5.13.1 Alternative 1: No Project Alternative

No development would occur on the project site under the No Project Alternative. The No Project Alternative would not result in an increase in demand for fire protection and emergency services or police protection services because no new housing would be developed on the project site. In addition, the No Project Alternative would not increase the demand for parks, libraries, schools, or other public facilities because there would be no new residents on the project site. Therefore, the No Project Alternative would have no impacts on public services, and this alternative would have less impacts than the proposed project.

5.5.13.2 Alternative 2: Reduced Project Alternative

The Reduced Project Alternative would develop the project site with a residential development similar to the proposed project, but at a reduced density. Compared to the proposed project, under the Reduced Project Alternative, the demand for fire protection and emergency services and police protection services would decrease because fewer residential units would be developed on the project site. Similar to the proposed project, the OCFA would request that the Applicant/Developer enter into a Secured Fire Protection Agreement with the OCFA to ensure that adequate fire protection service is available for the project site. The OCFA would also review and comment on the site plan prior to approval and impose standard conditions of approval that would reduce operational impacts. In addition, the Reduced Project Alternative would decrease the demand for parks, libraries, schools, and other public facilities because there would be fewer residents on the project site. Like the proposed project, the Applicant/Developer would be required to pay school fees and pay in-lieu park fees and/or or dedicate parkland to reduce any impacts on schools and parks. Therefore, the Reduced Project Alternative would have less than significant impacts on public services, and this alternative would have less impacts than the proposed project.

5.5.14 Recreation

The proposed project includes the construction of a 135 housing units, which would add approximately 408 new residents. The proposed project would include private open space/ recreational amenities, including a pool and landscaped areas for active and passive recreation uses. The proposed project's additional residents would require 1.22 acres of parkland based on the standard of 3.0 acres for each 1,000 residents in City Municipal Code Section 25-43. Per City requirements, the Applicant/Developer would be required to pay fees and/or dedicate parkland. With the payment of in-lieu park fees and/or the dedication of parkland, impacts related to recreation would be less than significant, and no mitigation is required.

5.5.14.1 Alternative 1: No Project Alternative

The No Project Alternative would not require any grading or site work because no new development would occur on the project site. In addition, no buildings would be constructed on the project site. Because no residential uses would be constructed on the project site, the No Project Alternative would not increase demand for City parkland. No impacts to recreational facilities would occur, and impacts would be less than the proposed project.

5.5.14.2 Alternative 2: Reduced Project Alternative

The Reduced Project Alternative would develop the project site with a residential development similar to the proposed project, but at a reduced density. The Reduced Project Alternative would include 94 residential units, which would serve 284 residents, based on the average household size in the City of 3.02 persons per household. The 284 additional residents would require approximately 0.85 acre of parkland based on the standard of 3.0 acres for each 1,000 residents in City Municipal Code Section 25-43. Per City requirements, the Applicant/Developer would be required to pay fees and/or dedicate parkland. With the payment of in-lieu park fees and/or the dedication of parkland, impacts related to recreation would be less than significant. Because the Reduced Project Alternative would result in less residents than the proposed project, the increased use and impacts to parks and recreational facilities would also be less than the proposed project.

5.5.15 Transportation

The new residential uses on the project site have the potential to generate approximately 988 average daily trips (ADT), including 62 trips (14 inbound and 48 outbound) in the a.m. peak hour and 76 trips (48 inbound and 28 outbound) in the p.m. peak hour. With the addition of the project, all study area intersections would continue to operate at satisfactory level of service (LOS) during both peak hours. The proposed project would not conflict with the *Orange County Congestion Management Program* (CMP) or the City's General Plan Circulation Element. Impacts related to conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities would be less than significant.

The proposed project is estimated to generate a vehicle miles traveled (VMT) per capita that would be approximately 26.1 percent below the project baseline (2020) VMT per capita of 13.6. Therefore, the proposed project's VMT per capita would not exceed the regional VMT threshold recommended in the OPR Technical Advisory[1]. Vehicle trips associated with a residential use on the project site have already been incorporated into the land use and growth assumptions included in the 2020–2045 RTP/SCS. In addition, the proposed project would be consistent with applicable goals in the 2020–2045 RTP/SCS. Therefore, the proposed project is consistent with the SCAG RTP/SCS. Therefore, the proposed project would result in a less than significant impact related to consistency with *State CEQA Guidelines* Section 15064.3, subdivision (b). The proposed project does not include any land uses that would be incompatible with surrounding land uses. In addition, all new driveways at the project site would be subject to the provisions of the City design standards to alleviate design feature and safety hazards. Therefore, impacts related to hazards due to a geometric feature or

[1] Governor's Office of Planning and Research (OPR). 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR Technical Advisory). December.

incompatible uses and inadequate emergency access would be less than significant, and no mitigation is required.

5.5.15.1 Alternative 1: No Project Alternative

The No Project Alternative would not require any grading or site work because no new development would occur on the project site. In addition, no buildings would be constructed on the project site and the project site would remain a parking lot. The No Project Alternative would not increase vehicle trips to and from the project site. Therefore, no traffic impacts would occur, and the No Project Alternative's impacts would be less than the proposed project.

5.5.15.2 Alternative 2: Reduced Project Alternative

The Reduced Project Alternative would develop the project site with a residential development similar to the proposed project, but at a reduced density. The Reduced Project Alternative would result in less of an increase in vehicle trips to and from the project site because of the reduced residential uses. Like the proposed project, all study area intersections would continue to operate at satisfactory LOS during both peak hours under the Reduced Project Alternative. The Reduced Project Alternative would not conflict with the *Orange County Congestion Management Program* (CMP), the City's General Plan Circulation Element, or the 2020-2045 RTP/SCS. Impacts related to conflicts with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities would be less than significant. The Reduced Project Alternative would also generate fewer VMT compared to the proposed project due to a decrease in the number of residential units. Therefore, the Reduced Project Alternative would also result in a less than significant impact related to consistency with *State CEQA Guidelines* Section 15064.3, subdivision (b). Similar to the proposed project, the Reduced Project Alternative would not include any land uses that would be incompatible with surrounding land uses. In addition, all new driveways would be subject to the provisions of the City design standards to alleviate design feature and safety hazards. Therefore, impacts related to hazards due to a geometric feature or incompatible uses and inadequate emergency access would be less than significant, and no mitigation is required. Because the Reduced Project Alternative would result in less vehicle trips compared to the proposed project, traffic impacts would be less than the proposed project.

5.5.16 Tribal Cultural Resources

The proposed project would develop the project site, which would require ground-disturbing construction activities. No previously recorded cultural resources were identified in the project site. Native American consultation was conducted by the City in compliance with Assembly Bill (AB) 52. As part of the consultation process, a review of the Sacred Lands File (SLF) by the Native American Heritage Commission (NAHC) yielded negative results. Subsequently, Native American representatives were contacted by the City to determine their desire to consult on the proposed project. No requests for AB 52 consultation were received for the proposed project, and no information regarding specific known tribal cultural resources on the project site was provided to the City. Therefore, the proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource as defined by CEQA that is listed or eligible for listing in the California Register of Historical Resources (California Register) or a local register.

Although no human remains are known to be on the project site or are anticipated to be discovered during project construction, there is always a possibility of encountering unanticipated human remains. If human remains are Native American in origin, the remains may be considered a tribal cultural resource. However, compliance with the State's Health and Safety Code for the treatment of human remains would address impacts to tribal cultural resources, which would be considered less than significant. No mitigation is required.

5.5.16.1 Alternative 1: No Project Alternative

The No Project Alternative would not require any grading, site work, or removal of vegetation because no new development would occur on the project site. In addition, no buildings would be constructed on the project site. Therefore, the No Project Alternative would not cause a substantial adverse change in the significance of a tribal cultural resource as defined by CEQA that is listed or eligible for listing in the California Register or a local register. Further, the No Project Alternative would not have the potential to disrupt human remains or result in the discovery of previously unknown tribal cultural resources. No impacts related to tribal cultural resources would occur; therefore, the impacts of the No Project Alternative would be less than that of the proposed project.

5.5.16.2 Alternative 2: Reduced Project Alternative

The Reduced Project Alternative would develop the project site with a residential development similar to the proposed project, but at a reduced density. Similar to the proposed project, the Reduced Project Alternative would require ground-disturbing construction activities during development. Similar to the proposed project, the Reduced Project Alternative would not cause a substantial adverse change in the significance of a tribal cultural resource as defined by CEQA that is listed or eligible for listing in the California Register or a local register because no previously recorded cultural resources were identified in the project site. The Reduced Project Alternative would also be required to comply with the State's Health and Safety Code for the treatment of human remains. Adherence to regulatory standards would address potential impacts related to tribal cultural resources, which would be considered less than significant. The Reduced Project Alternative would result in similar impacts to unknown tribal cultural resources compared to the proposed project because it would result in similar ground-disturbing activities.

5.5.17 Utilities and Service Systems

Utilities and service systems include water, wastewater, electricity, natural gas, telecommunications, solid waste, and storm drain facilities. The proposed project would include on-site water distribution, wastewater conveyance, stormdrain systems, electrical lines, natural gas lines, and telecommunication lines that would connect to the existing utility systems in the City. The proposed project would increase demand for these services as well as solid waste disposal and wastewater treatment; however, there are sufficient supplies and capacity available to service the increased demand. Impacts related to utilities and service systems would be less than significant, and no mitigation is required.

5.5.17.1 Alternative 1: No Project Alternative

The No Project Alternative would not include any new development on the project site so it would not increase demand for or require any enhancement or new construction of public facility

infrastructure for electricity, natural gas, water, or telecommunications. Additionally because no construction would occur and there would be no residential uses added to the site, no increase in solid waste or wastewater generation would occur. Therefore, the No Project Alternative would have no impacts on utilities and service systems, and this alternative would have less impacts than the proposed project.

5.5.17.2 Alternative 2: Reduced Project Alternative

The Reduced Project Alternative would develop the project site with a residential development similar to the proposed project, but at a reduced density. The Reduced Project Alternative would also include on-site water distribution, wastewater conveyance, stormdrain systems, electrical lines, natural gas lines, and telecommunication lines that would connect to the existing utility systems in the City. Compared to the proposed project, the Reduced Project Alternative would result in less demand for electricity, natural gas, water, or telecommunications because of the reduced residential uses on the project site. Additionally, the Reduced Project Alternative would generate less solid waste and wastewater. Therefore, the Reduced Project Alternative would have less than significant impacts on utilities. This alternative would have less impacts related to utilities and service systems than the proposed project.

5.5.18 Project Objectives

The Project Objectives include:

Objective 1: Provide new high-quality housing allowed under the Specific Plan.

Objective 2: Develop housing in close proximity to existing and future commercial, retail, and medical uses.

Objective 3: Provide uses that meet the City's General Plan balanced development goals and objectives to locate higher density housing adjacent to commercial and employment opportunities to encourage pedestrian access and provide a consumer base for commercial uses and to help meet the existing and future housing needs of all Cypress residents.

Objective 4: Expand the City's housing supply by developing high-quality housing in the City to alleviate the housing crisis and help the City meet its Regional Housing Needs Assessment allocations.

Objective 5: Implement the Cypress Town Center and Commons Specific Plan 2.0, which will permit the development of new parks and multi-family residential units that are attainable housing for local families.

Objective 6: Provide pedestrian connections to adjacent parcels to provide connectivity and convenient access to the nearby existing and future commercial and retail uses.

Objective 7: Provide landscaped areas that provide passive and active recreation opportunities.

Objective 8: Provide landscaped areas to enhance the Specific Plan Area along with green infrastructure to improve stormwater quality.

5.5.18.1 Alternative 1: No Project Alternative

Under the No Project Alternative, the project site would remain a paved parking lot that would continue to be used for vehicle parking during events at the nearby Los Alamitos Race Course. No residential uses would be developed on the project site. The No Project Alternative would not develop housing in close proximity to commercial and employment opportunities, expand the City's housing supply, or implement the Cypress Town Center and Commons Specific Plan 2.0. Additionally, the No Project Alternative would not provide pedestrian connections to adjacent parcels, provide landscaped areas that provide passive and active recreation opportunities, or provide green infrastructure to improve stormwater quality. Therefore, the No Project Alternative would not be consistent with any of the project objectives.

5.5.18.2 Alternative 2: Reduced Project Alternative

The Reduced Project Alternative would develop the project site with a residential development similar to the proposed project, but at a reduced density. The Reduced Project Alternative would develop housing in close proximity to commercial and employment opportunities, expand the City's housing supply, and implement the Cypress Town Center and Commons Specific Plan 2.0. Additionally, the Reduced Project Alternative would provide pedestrian connections to adjacent parcels, provide landscaped areas that provide passive and active recreation opportunities, and provide green infrastructure to improve stormwater quality. The Reduced Project Alternative would be consistent with all of the project objectives. However, the Reduced Project Alternative would meet the goals of providing new high-quality housing and expanding the City's housing supply to a lesser extent than the proposed project due to the reduced number of residential units. Therefore, the Reduced Project Alternative would meet all of the project objectives, but to a lesser extent than the proposed project. This assumes, however, that a developer would be willing and able to purchase the project site and feasibly develop it at the reduced density.

5.6 IDENTIFICATION OF ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires the identification of an Environmentally Superior Alternative among the proposed project and the alternatives evaluated in an EIR. *State CEQA Guidelines* Section 15126.6(e)(2) provides that, if the No Project Alternative is the Environmentally Superior Alternative, then the EIR shall also identify an Environmentally Superior Alternative among the other alternatives and the proposed project. Table 5.A provides, in summary format, a comparison of the level of impacts of each alternative to the proposed project.

The No Project Alternative would have the least impact on the environment because the project site would remain a paved parking lot and would thereby avoid most of the proposed project's environmental impacts. However, the No Project Alternative cannot be the only Environmentally Superior Alternative. Therefore, according to Section 15126.6(e)(2) of the *State CEQA Guidelines*, because the No Project Alternative has been identified as the Environmentally Superior Alternative, the EIR shall also identify the proposed project or one of the other alternatives as the Environmentally Superior Alternative.

Putting aside the No Project Alternative, the Reduced Project Alternative is the Environmentally Superior Alternative. As shown in Table 5.A, below, all impacts under the Reduced Project Alternative would be similar to or less than the proposed project. The Reduced Project Alternative would result in reduced impacts on the environment because the project site would be developed at a reduced density, thereby reducing most of the proposed project's environmental impacts. The Reduced Project Alternative would also meet all of the project objectives, but to a lesser extent than the proposed project. Accordingly, it is determined that the Reduced Project Alternative is the Environmentally Superior Alternative because it would meet all of the project's objectives and would result in reduced environmental impacts as compared to the proposed project.

Table 5.A: Comparison of the Environmental Impacts of the Proposed Project and Project Alternatives

Impact Area	Proposed Project Impact with Mitigation (if any)	Alternative 1: No Project Alternative	Alternative 2: Reduced Project Alternative
Aesthetics	Less than Significant	Less	Less
Air Quality	Less than Significant	Less	Less
Biological Resources	Less than Significant	Less	Similar
Cultural Resources	Less than Significant[1]	Less	Similar
Energy	Less than Significant	Less	Less
Geology and Soils	Less than Significant[1]	Less	Similar
Greenhouse Gas Emissions	Less than Significant	Less	Less
Hazards and Hazardous Materials	Less than Significant	Less	Similar
Hydrology and Water Quality	Less than Significant	Similar	Similar
Land Use and Planning	Less than Significant	Greater	Similar
Noise	Less than Significant	Less	Less
Population and Housing	Less than Significant	Less	Less
Public Services	Less than Significant	Less	Less
Recreation	Less than Significant	Less	Less
Transportation	Less than Significant	Less	Less
Tribal Cultural Resources	Less than Significant	Less	Similar
Utilities and Service Systems	Less than Significant	Less	Less

[1] Mitigation identified.

6.0 OTHER CEQA CONSIDERATIONS

6.1 SUMMARY OF SIGNIFICANT UNAVOIDABLE IMPACTS

Section 15126.2(c) of the *State CEQA Guidelines* requires that an Environmental Impact Report (EIR) describe any significant impacts that cannot be avoided. Specifically, Section 15126.2(c) states that an EIR shall:

> "Describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the project is being proposed, notwithstanding their effect, should be described."

The Executive Summary of this document (Chapter 1.0) contains a detailed summary that identifies the proposed project's environmental impacts as compared to existing conditions, proposed mitigation measures, and the level of significance of any impacts after mitigation. Implementation of the proposed project would not result in any impacts that are considered significant, adverse, and unavoidable. All environmental issues analyzed in this Draft EIR were determined to result in less than significant impacts, or can be reduced to less than significant levels with the incorporation of mitigation measures.

6.2 ENERGY IMPACTS

According to Section 15126.2(b) of the *State CEQA Guidelines*, "[i]f analysis of the project's energy use reveals that the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary consumption use of energy, or wasteful use of energy resources, the EIR shall mitigate that energy use."

As described in Section 4.5, Energy, of this Draft EIR, the proposed project would not result in significant impacts related to energy use. Therefore, no mitigation is required.

6.3 GROWTH-INDUCING IMPACTS

Sections 15126(d) and 15126.2(e) of the *State CEQA Guidelines* require that an EIR analyze growth-inducing impacts and discuss the ways in which a proposed project could foster economic or population growth or construction of additional housing, either directly or indirectly, in the surrounding environment. This section examines ways in which the proposed project could foster economic or population growth, or the construction of additional housing either directly or indirectly in the surrounding environment. *State CEQA Guidelines* Section 15126.2(d) also requires a discussion of the characteristics of projects that may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. To address these issues, potential growth-inducing effects were examined through analysis of the following questions:

- Would the project remove obstacles to, or otherwise foster, population growth (e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development)?

- Would the project foster economic growth?

- Would approval of the project involve some characteristic that may encourage and facilitate other activities that could significantly affect the environment?

Growth-inducing effects are not to be construed as necessarily beneficial, detrimental, or of little significance to the environment (*State CEQA Guidelines*, Section 15126.2(e)). This issue is presented to provide additional information on ways in which the proposed project could contribute to significant changes in the environment beyond the direct consequences of developing the proposed land uses as described in earlier sections of this Draft EIR.

6.3.1 Removal of Obstacles to, or Otherwise Foster, Population Growth

The area surrounding the project site is already highly urbanized and developed with a variety of residential, business park, racetrack, and commercial land uses, so limited population growth is feasible within the vicinity of the project site. In any event, the proposed project would not remove impediments to population growth in the area surrounding the project site. While the proposed project may require water, sewer, drainage, electricity, and natural gas lines on site and in the immediate vicinity of the project site, such improvements would be intended primarily to meet project-related demand and would not necessitate substantial utility infrastructure improvements. In addition, all roadway improvements planned with respect to the proposed project are intended to provide for better circulation flows within the project site or allow vehicular access to the existing segment of Vessels Circle to the east of the project site, and would not foster off-site population growth.

The construction of the proposed project would generate a substantial number of construction-related jobs. However, the proposed project would not promote construction workers relocating their places of residence as a direct consequence of working on the proposed project because it is expected that local and regional construction workers would be available to meet the proposed project's construction needs. The work requirements of most construction projects are highly specialized so construction workers remain at a job site only for the limited time in which their specific skills are needed to complete a particular phase of the construction process. Therefore, the proposed project would not induce material population growth from a short-term employment perspective.

Upon completion of the proposed project, the 135 residential housing units are estimated to generate a total of approximately 408 new residents on the project site. While this direct population growth would increase the demand for neighborhood-serving commercial uses in the area surrounding the project site, the proposed project would be located in a built out area of the City of Cypress that is already served by neighborhood-serving retail and service uses. Although some local businesses that provide goods and services to nearby residents may hire a small number of additional employees to accommodate the minor increase in clientele associated with the proposed

project, this additional hiring is not expected to induce material population growth because most of these new employees are not expected to change their places of residence.

Therefore, given that the employment opportunities generated by the construction and operation of the proposed project would be filled by people who would commute to the project site, the potential population growth associated with project employees would be minimal.

6.3.2 Foster Economic Growth

In its existing condition, the project site is a paved and underutilized parking lot that generates a nominal amount of property tax revenue for the City and very little economic activity. The proposed project would trigger a reassessment of the project site, which would increase the local property tax base. The proposed project would also introduce new residents that would invigorate the local economy by spending on goods and services at local businesses. As previously discussed, the construction of the proposed project would generate a substantial number of construction-related jobs and new employment opportunities in the City during the construction period. Therefore, the proposed project would foster economic growth.

6.3.3 Other Characteristics

The proposed project includes the development of up to 135 residential units on the project site. Because the proposed project would not modify the existing General Plan land use designations or zoning classifications on any off-site properties, the proposed project would not directly increase the City's population beyond the number of residents who would live in the 135 on-site residential units. While it is conceivable that the project's approval could attract the interest of new housing developers to Cypress who may seek the approval of Specific Plan or General Plan Amendments on other undeveloped or underutilized properties in the City for the purpose of developing new housing, it is highly unlikely, given that the City of Cypress has very little land that would be able to accommodate new housing development that has not already been designated for housing. Any future growth in the City is likely to occur regardless of whether or not the project is approved.

6.4 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126.2(d) of the *State CEQA Guidelines* requires that an EIR consider and discuss significant irreversible changes that would be caused by implementation of a proposed project. The *State CEQA Guidelines* specify that the use of nonrenewable resources during the initial and continued phases of a project should be discussed because a large commitment of such resources makes removal or non-use thereafter unlikely. Primary and secondary impacts (e.g., a highway improvement that provides access to a previously inaccessible area) should also be discussed because such changes generally commit future generations to similar uses. Irreversible damage can also result from environmental accidents associated with a project and should be discussed.

The types and level of development associated with the proposed project would consume limited, slowly renewable, and nonrenewable resources. This consumption would occur during construction of the proposed project and would continue throughout the operational lifetime of the proposed project. The development of the proposed project would require a commitment of resources that

would include (1) building materials, (2) fuel and operational materials/resources, and (3) the transportation of goods and people to and from the project site.

Construction of the proposed project would require consumption of resources that are not replenishable or that may renew so slowly as to be considered nonrenewable. These resources would include certain types of lumber and other forest products (e.g., hardwood lumber), aggregate materials used in concrete and asphalt (e.g., sand, gravel, and stone), metals (e.g., steel, copper, and lead), petrochemical construction materials (e.g., plastics), and water. Fossil fuels (e.g., gasoline and oil) would also be consumed in the use of construction vehicles and equipment. Water, which is a limited, slowly renewable resource, would also be consumed during construction of the proposed project. However, given the temporary nature of construction activities, water consumption during construction would result in a less than significant impact on water supplies. Furthermore, the use of construction vehicles and equipment would require the consumption of nonrenewable fossil fuels such as natural gas and oil. As with other resources consumed during construction, the consumption of nonrenewable fossil fuels for energy use would occur on a temporary basis during construction of the proposed project.

Operation of the proposed project would continue to expend similar nonrenewable resources that are currently consumed within Cypress and on site. These include energy resources such as electricity, petroleum-based fuels, fossil fuels, and water. Energy resources would be used for heating and cooling buildings, transportation within the project site, and building lighting. Fossil fuels are primary energy sources for project construction and operation. This existing, finite energy source would thus be incrementally reduced. Under Title 24, Part 6 of the California Code of Regulations (CCR), conservation practices limiting the amount of energy consumed by the proposed project would be required during operation. Nevertheless, the use of such resources would continue to represent a long-term commitment of essentially nonrenewable resources.

The proposed project would result in the limited use of potentially hazardous materials contained in typical cleaning agents and pesticides for landscaping on the project site. Such materials would be used, handled, stored, and disposed of in accordance with applicable government regulations and standards that would serve to protect against a significant and irreversible environmental change resulting from the accidental release of hazardous materials.

In summary, construction and operation of the proposed project would commit the use of slowly renewable and nonrenewable resources and would limit the availability of these resources on the project site for future generations or for other uses during the life of the proposed project. However, the continued use of such resources during operation would be on a relatively small scale and consistent with regional and local urban design and development goals for the area. As a result, the use of nonrenewable resources in this manner would not result in significant irreversible changes to the environment under the proposed project.

7.0 MITIGATION MONITORING AND REPORTING PROGRAM

7.1 MITIGATION MONITORING REQUIREMENTS

California Public Resources Code (PRC) Section 21081.6, which is part of the California Environmental Quality Act (CEQA) statute, mandates that the following requirements shall apply to all reporting or mitigation monitoring programs:

- The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes that have been required or incorporated into the project at the request of a responsible agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the lead agency or a responsible agency, prepare and submit a proposed reporting or monitoring program.

- The lead agency shall specify the location and custodian of the documents or other materials that constitute the record of proceedings upon which its decision is based.

- The lead agency shall provide measures to mitigate or avoid potentially significant effects on the environment that are fully enforceable through permit conditions, agreements, or other measures. Conditions of project approval may be set forth in referenced documents that address required mitigation measures or, in the case of the adoption of a plan, policy, regulation, or other project, by incorporating the mitigation measures into the plan, policy, regulation, or project design.

- Prior to the close of the public review period for a draft environmental impact report, a responsible agency, or a public agency having jurisdiction over natural resources affected by the project, shall either (1) submit to the lead agency complete and detailed performance objectives for mitigation measures that would address the significant effects on the environment identified by the responsible agency or agency having jurisdiction over natural resources affected by the project, or (2) refer the lead agency to appropriate, readily available guidelines or reference documents. Any mitigation measures submitted to a lead agency by a responsible agency or an agency having jurisdiction over natural resources affected by the project shall be limited to measures that mitigate impacts to resources that are subject to the statutory authority of, and definitions applicable to, that agency. Compliance or noncompliance with that requirement by a responsible agency or agency having jurisdiction over natural resources affected by a project shall not limit the authority of the responsible agency or agency having jurisdiction over natural resources affected by a project, or the authority of the lead agency, to approve, condition, or deny projects as provided by this division or any other provision of law.

7.2 MITIGATION MONITORING PROCEDURES

The mitigation monitoring and reporting program for the proposed Cypress Town Center Project (proposed project) has been prepared in compliance with PRC Section 21081.6. It describes the requirements and procedures to be followed by the City of Cypress, as the Lead Agency, to ensure that all mitigation measures adopted as part of the proposed project will be carried out as described in this Draft Environmental Impact Report (EIR).

Table 7.A sets forth the proposed mitigation monitoring and reporting program. It lists each of the mitigation measures specified in this Draft EIR and identifies the party or parties responsible for implementation and monitoring of each measure.

Table 7.A: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures/Standard Conditions/ Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
4.2: Air Quality					
Regulatory Compliance Measure AQ-1: **SCAQMD Rule 403.** During clearing, grading, earth moving, or excavation operations, excessive fugitive dust emissions shall be controlled by regular watering or other dust preventative measures by using the following procedures, in compliance with South Coast Air Quality Management District (SCAQMD) Rule 403 during construction. ● All material excavated or graded shall be sufficiently watered to prevent excessive amounts of dust. Watering shall occur at least twice daily with complete coverage, preferably in the late morning and after work is done for the day. ● All material transported on-site or off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust. ● The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized so as to prevent excessive amounts of dust. ● These control techniques shall be indicated in project specifications. Compliance with this measure shall be subject to periodic site inspections by the City of Cypress (City). ● Visible dust beyond the property line emanating from the project shall be prevented to the maximum extent feasible.	During ground-disturbing activities	Applicant/Developer and City of Cypress Director of Community Development Department, or designee			
Regulatory Compliance Measure AQ-2: All trucks that are to haul excavated or graded material shall comply with State Vehicle Code Section 23114, with special attention to Sections 23114(b)(F), (e)(2) and (e)(4) as amended, regarding the prevention of such material spilling onto public streets and roads.	During construction	Applicant/Developer and City of Cypress Director of Community Development Department, or designee			

Table 7.A: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures/Standard Conditions/ Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
Regulatory Compliance Measure AQ-3: Prior to approval of the project plans and specifications, the Planning Division shall confirm that the construction bid packages specify: ● Contractors shall use high-pressure-low-volume paint applicators with a minimum transfer efficiency of at least 50 percent; ● Coatings and solvents that will be utilized have a volatile organic compound content lower than required under South Coast Air Quality Management District Rule 1113; and ● To the extent feasible, construction/building materials shall be composed of pre-painted materials.	Prior to approval of project plans	Applicant/Developer and City of Cypress Director of Community Development Department, or designee			
Regulatory Compliance Measure AQ-4: The project shall comply with SCAQMD Rule 402. Rule 402 prohibits the discharge of air contaminants or other material from any type of operations which can cause nuisance or annoyance to any considerable number of people or to the public or which endangers the comfort or repose of any such persons, or the public.	During construction and operation	Applicant/Developer and City of Cypress Director of Community Development Department, or designee			
Regulatory Compliance Measure AQ-5: **California Code of Regulations (CCR), Title 24.** Prior to the issuance of building permits, the City of Cypress (City) Chief Building Official, or designee, shall confirm that the project design complies with the 2019 Building Energy Efficiency Standards (CCR Title 24) energy conservation and green building standards, as well as those listed in Part 11 (California Green Building Standards Code [CALGreen Code]). The City's Chief Building Official shall confirm that the project complies with the mandatory measures listed in the CALGreen Code for residential building construction.	During construction	Applicant/Developer and City of Cypress Director of Community Development Department, or designee			

Table 7.A: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures/Standard Conditions/ Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
4.3: Biological Resources					
Regulatory Compliance Measure BIO-1: **Nesting Bird Survey and Avoidance.** If vegetation removal, construction, or grading activities are planned to occur within the active nesting bird season (February 1 through August 31), the City of Cypress, or designee, shall confirm that the Applicant/Developer has retained a qualified biologist who shall conduct a preconstruction nesting bird survey no more than 3 days prior to the start of such activities. The nesting bird survey shall include the work area and areas adjacent to the site (within 500 feet, as feasible) that could potentially be affected by project-related activities such as noise, vibration, increased human activity, and dust, etc. For any active nest(s) identified, the qualified biologist shall establish an appropriate buffer zone around the active nest(s). The appropriate buffer shall be determined by the qualified biologist based on species, location, and the nature of the proposed activities. Project activities shall be avoided within the buffer zone until the nest is deemed no longer active, as determined by the qualified biologist.	Three days prior to commencement of grading activities	Applicant/Developer and City of Cypress Community Development Director, or designee			
4.4: Cultural Resources					
Regulatory Compliance Measure CUL-1: **Human Remains.** If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County of Orange (County) Coroner has made a determination of origin and disposition pursuant to State Public Resources Code (PRC) Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American, the County Coroner would notify the Native American Heritage Commission (NAHC), which would determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall	During construction activities	Construction supervisor/ Applicant/Developer			

Table 7.A: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures/Standard Conditions/ Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
complete the inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The MLD recommendations may include scientific removal and nondestructive analysis of human remains and items associated with Native American burials, preservation of Native American human remains and associated items in place, relinquishment of Native American human remains and associated items to the descendants for treatment, or any other culturally appropriate treatment.					
Mitigation Measure 4.4-1: **Cultural Resources Monitoring and Accidental Discovery.** Prior to the issuance of grading permits, and in adherence to the recommendations of the Record Search Results for the Cypress Town Center Project in Cypress, Orange County, California (LSA Project No. CCP1603.08) (November 2020), the Applicant/ Developer shall retain a qualified archaeological monitor with approval of the City of Cypress (City) Community Development Director or designee. A monitoring plan shall be prepared by the archaeologist and implemented upon approval by the City. The monitor shall be present full-time during trenching activities for utilities only, not during over excavation or building footing excavations or during demolition or clearing/grubbing of existing landscape. If cultural materials are discovered during grading or excavation, the construction contractor shall divert all earthmoving activity within and around the immediate discovery area until a qualified archaeologist can assess the nature and significance of the find. Project personnel shall not collect or move any archaeological materials or human remains and associated materials. To the extent feasible, project activities shall avoid these deposits. Where avoidance is not feasible, the archaeological deposits shall be evaluated for their eligibility for listing on the California Register of	Prior to the issuance of a grading permit and during construction activities	Applicant/Developer and/or construction supervisor/City of Cypress Director of Community Development Department, or designee			

Table 7.A: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures/Standard Conditions/ Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
Historical Resources. If the deposits are not eligible, avoidance is not necessary. If the deposits are eligible, adverse effects on the deposits must be avoided, or such effects must be mitigated. Mitigation can include, but is not necessarily limited to: excavation of the deposit in accordance with a data recovery plan (see California Code of Regulations [CCR] Title 4(3) Section 5126.4(b)(3)(C)) and standard archaeological field methods and procedures; laboratory and technical analyses of recovered archaeological materials; production of a report detailing the methods, findings, and significance of the archaeological site and associated materials; curation of archaeological materials at an appropriate facility for future research and/or display; an interpretive display of recovered archaeological materials at a local school, museum, or library; and public lectures at local schools and/or historical societies on the findings and significance of the site and recovered archaeological materials. The City Community Development Director, or designee, shall be responsible for reviewing any reports produced by the archaeologist to determine the appropriateness and adequacy of the findings and recommendations.					
4.6: Geology and Soils					
Regulatory Compliance Measure GEO-1: **California Building Code Compliance Seismic Standards.** All structures shall be designed in accordance with the seismic parameters presented in the Geotechnical Assessment prepared for this project (GeoTek, Inc., 2019) and applicable sections of the most current California Building Code (CBC). Prior to the issuance of building permits for planned structures, the Project Soils Engineer and the City of Cypress Chief Building Official, or designee, shall review building plans to verify that the structural design conforms to the requirements of the Geotechnical Assessment and the City of Cypress Municipal Code.	Prior to issuance of building permits	Applicant/Developer and City of Cypress Chief Building official, or designee			

Table 7.A: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures/Standard Conditions/ Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
Mitigation Measure 4.6-1: **Compliance with the Recommendations in the Project Geotechnical Assessment.** The Applicant/Developer's construction contractor shall implement the recommendations of the Geotechnical Evaluation for Proposed Multi-Family Residential Development South of Vessels Circle and West or Walker Street, City of Cypress, Orange County, California (Geotechnical Assessment) (GeoTek, Inc. [GeoTek], August 12, 2019) Geotechnical Assessment) prepared for the proposed project, as applicable to the satisfaction of the City of Cypress' (City) Chief Building Official or designee, including, but not limited to: 1. To address potential liquefaction potential and seismically induced settlement, at a minimum, the upper 4 ft of soil shall be completely removed within the structural grading limits. The depth of removals should be extended, where needed, to eliminate any undocumented fill. Additional removals may be recommended if unsuitable materials are exposed. As a minimum, removals shall extend down and away from foundation elements at a 1:1 (h:v) projection to the recommended removal depth, or a minimum of 5 ft laterally. 2. A minimum 24 inches of engineered fill shall be provided below the bottom of the proposed foundations. The Project Geotechnical Consultant and the City of Cypress Director of Public Works/City Engineer, or designee, shall observe the bottom of all excavations. A minimum of 12 inches of engineered fill should be provided below asphaltic concrete pavement and Portland cement concrete hardscape areas. The horizontal extent of removals should extend at least 2 ft beyond the edge. 3. The bottom of removals may encounter very moist/soft soils that may require stabilization. If required, to address shallow	Prior to issuance of grading permits	Applicant/Developer and City of Cypress Director of Public Works and Chief Building Official, or designee(s)			

Table 7.A: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures/Standard Conditions/ Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
groundwater and wet soil, some type of ground stabilization, such as cement treatment or aggregate or a combination of both shall be used. Geofabric or geogrid is recommended in combination with aggregate to reduce the required depth of treatment, amount of aggregate and time required to backfill the excavations. 4. Concrete slabs shall be used for all foundations and slabs on grade and shall a minimum bearing capacity of 2,000 pounds per square foot (psf). 5. A moisture and vapor retarding system shall be placed below slabs-on-grade where moisture migration through the slab is undesirable. The system shall be designed per 2016 California Green Building Standards Code (CALGreen) Section 4.505.2 and the 2016 CBC Section 1910.1. Additional site testing and final design evaluation shall be conducted by the Project Geotechnical Consultant to refine and enhance these requirements. The Applicant/Developer shall require the Project Geotechnical Consultant to assess whether the requirements in that report need to be modified or refined to address any changes in the project features that occur prior to the start of grading. If the Project Geotechnical Consultant identifies modifications or refinements to the requirements, the Applicant/ Developer shall require appropriate changes to the final project design and specifications. Design, grading, and construction shall be performed in accordance with the requirements of the City of Cypress Municipal Code and the California Building Code (CBC) applicable at the time of grading, appropriate local grading regulations, and the requirements of the Project Geotechnical Consultant as summarized in a final written report, subject to review by the City of Cypress Director of Public Works, or designee, prior to commencement of grading activities.					

Table 7.A: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures/Standard Conditions/ Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
Grading plan review shall also be conducted by the Director of Public Works, or designee, prior to the start of grading to verify that the requirements developed during the geotechnical design evaluation have been appropriately incorporated into the project plans. Design, grading, and construction shall be conducted in accordance with the specifications of the Project Geotechnical Consultant as summarized in a final report based on the CBC applicable at the time of grading and building, and the City's Building Code. On-site inspection during grading shall be conducted by the Project Geotechnical Consultant and the City of Cypress Director of Public Works/City Engineer, or designee, to ensure compliance with geotechnical specifications as incorporated into project plans. Prior to the final grading permits, the Project Geotechnical Consultant shall submit a Final Testing and Observation Geotechnical Report for Rough Grading to the City of Cypress Director of Public Works/City Engineer, or designee.					
Mitigation Measure 4.6-2: **Procedures for Unexpected Paleontological Resources Discoveries.** In the event that paleontological resources are encountered, work in the immediate area of the discovery shall be halted and the Applicant/Developer shall retain a professional Paleontologist who meets the qualifications established by the Society of Vertebrate Paleontology to assess the discovery. The qualified, professional Paleontologist shall make recommendations regarding the treatment and disposition of the discovered resources, as well as the need for subsequent paleontological mitigation, which may include, but not be limited to, paleontological monitoring; collection of observed resources; preservation, stabilization, and identification of collected resources; curation of resources into a museum repository; and preparation of a monitoring report of findings. The City of Cypress shall ensure that the recommendations from the qualified, professional Paleontologist shall be followed by the Applicant/	During ground-disturbing activities	Applicant/Developer and/or construction supervisor/City of Cypress Director of Community Development Department, or designee			

Table 7.A: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures/Standard Conditions/ Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
Developer.					
4.8: Hazards and Hazardous Materials					
Regulatory Compliance Measure HAZ-1: Federal Aviation Regulation Title 14 Part 77**.** The Applicant/ Developer shall notify the Federal Aviation Administration (FAA) of any proposed structure(s) that would penetrate the 100 to 1 imaginary surface that surrounds the runway at Joint Forces Training Base Los Alamitos at least 45 days prior to beginning construction	45 days prior to beginning construction	Applicant/Developer and Federal Aviation Administration			
4.9: Hydrology and Water Quality					
Regulatory Compliance Measure HYD-1: **Construction General Permit.** Prior to commencement of construction activities, the Applicant/Developer shall obtain coverage under the *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit),* NPDES No. CAS000002, Order No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ, or any other subsequent permit. This shall include submission of Permit Registration Documents (PRDs), including permit application fees, a Notice of Intent (NOI), a risk assessment, a site plan, a Stormwater Pollution Prevention Plan (SWPPP), a signed certification statement, and any other compliance-related documents required by the permit, to the State Water Resources Control Board via the Stormwater Multiple Application and Report Tracking System (SMARTS). Construction activities shall not commence until a Waste Discharge Identification Number (WDID) is obtained for the project from the SMARTS and provided to the Director of the City of Cypress Community Development Department, or designee, to demonstrate that coverage under the Construction General Permit has been obtained. Project construction shall comply with all	Prior to and during construction activities	Applicant/Developer and City of Cypress Director of Community Development Department, or designee			

Table 7.A: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures/Standard Conditions/ Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
applicable requirements specified in the Construction General Permit, including, but not limited to, preparation of a SWPPP and implementation of construction site best management practices (BMPs) to address all construction-related activities, equipment, and materials that have the potential to impact water quality for the appropriate risk level identified for the project. The SWPPP shall identify the sources of pollutants that may affect the quality of stormwater and shall include BMPs (e.g., Sediment Control, Erosion Control, and Good Housekeeping BMPs) to control the pollutants in stormwater runoff. Construction Site BMPs shall also conform to the requirements specified in the latest edition of the Orange County Stormwater Program *Construction Runoff Guidance Manual for Contractors, Project Owners, and Developers* to control and minimize the impacts of construction and construction-related activities, materials, and pollutants on the watershed. Upon completion of construction activities and stabilization of the project site, a Notice of Termination shall be submitted via SMARTS.					
Regulatory Compliance Measure HYD-2: **Groundwater Dewatering Permit.** If groundwater dewatering is required during excavation activities, the Applicant/Developer shall obtain coverage under the *General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (De Minimis) Threat to Water Quality (*Order No. R8-2009-0003, NPDES No. CAG998001) (*De Minimis* Permit). This shall include submission of a Notice of Intent (NOI) for coverage under the permit to the Santa Ana Regional Water Quality Control Board (RWQCB) at least 45 days prior to the start of dewatering. Groundwater dewatering activities shall comply with all applicable provisions in the permit, including water sampling, analysis, treatment (if required), and reporting of dewatering-related discharges. Upon completion of groundwater dewatering activities, a Notice of Termination shall be submitted to the Santa	Prior to and during construction activities	Applicant/Developer and City of Cypress Director of Community Development Department, or designee			

Table 7.A: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures/Standard Conditions/ Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
Ana RWQCB.					
Regulatory Compliance Measure HYD-3: **Best Management Practices.** The Applicant/Developer shall implement the BMPs identified in Section IV of the On-Site and Off-Site Water Quality Management Plans and the drainage improvements identified in the Hydrology and Hydraulics Study. In addition, the Property Owners Association shall be the responsible party for inspection and maintenance of the on-site BMPs as identified in Section V of the On-Site Water Quality Management Plan. The City shall be the responsible party for inspection and maintenance of the off-site BMPs as identified in Section V of the Off-Site Water Quality Management Plan.	During construction and operation	Applicant/Developer and Property Management Association			
4.11: Noise					
Regulatory Compliance Measure NOI-1: The construction contractor shall limit all construction-related activities to between the hours 7:00 a.m. and 8:00 p.m. on weekdays and between the hours of 9:00 a.m. and 8:00 p.m. on Saturdays. No construction shall be permitted outside of these hours or on Sundays or a federal holiday.	During construction	Applicant/Developer and City of Cypress Director of Community Development Department, or designee			
Regulatory Compliance Measure NOI-2: Mechanical equipment, including air conditioning units in residential, commercial, and industrial zoning districts, shall be enclosed within a structure or completely screened from view from surrounding properties by the use of a fence or wall consistent with Section 3.11.100(b) of the City of Cypress Municipal Code. Additionally, prior to the issuance of building permits, the Applicant/Developer shall demonstrate, to the satisfaction of the City of Cypress Director of Community Development, or designee, that on-site stationary noise sources, such as air conditioners, shall not exceed City noise standards as stated within the City's Municipal Code Sections 13-68 and 13-69.	During operation	Applicant/Developer and City of Cypress Director of Community Development Department, or designee			

Table 7.A: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures/Standard Conditions/ Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
Standard Condition NOI-1: Prior to the issuance of a grading permit, the construction contractor shall demonstrate, to the satisfaction of the City of Cypress Director of Community Development, or designee, the following: ● Construction contracts shall specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other State required noise attenuation devices. ● Construction noise reduction methods such as shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and use of electric air compressors and similar power tools, rather than diesel equipment, shall be used where feasible. ● During construction, stationary construction equipment shall be placed such that emitted noise is directed away from noise-sensitive receptors. All construction entrances shall clearly post construction hours, allowable workdays, and the phone number of the job superintendent. This will allow surrounding owners and residents to contact the job superintendent with concerns. If the Applicant/ Developer receives a noise-related complaint, appropriate corrective actions shall be implemented and a report taken indicating the action with a copy of the report provided to the reporting party upon request.	Prior to issuance of any grading permits	Applicant/Developer and City of Cypress Director of Community Development Department, or designee			

Table 7.A: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures/Standard Conditions/ Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
4.13: Public Services					
Regulatory Compliance Measure PS-1: **Payment of School Fees.** Prior to issuance of any building permits, the Applicant/Developer shall provide proof to the Director of the City of Cypress Community Development Department, or designee, that payment of school fees to the Anaheim Union High School District has been made in compliance with Section 65995 of the California Government Code.	Prior to issuance of any building permits	Applicant/Developer and City of Cypress Director of Community Development Department, or designee			
4.14: Recreation					
Regulatory Compliance Measure REC-1: **Dedication of Parkland and/or Payment of Park Fees.** Prior to issuance of any building permits, the Applicant/Developer shall provide proof of compliance with the applicable provisions of Chapter 25 (Subdivisions), Article 6, Park and Recreational Facilities, of the City of Cypress (City) Municipal Code, or other fees as determined by the City, to the Director of the City Community Development Department, or designee.	Prior to issuance of any building permits	Applicant/Developer and City of Cypress Director of Community Development Department, or designee			
4.17: Utilities and Service Systems					
Regulatory Compliance Measure UTIL-1: **Sewer Improvement Standards.** All required sewer improvements shall be designed and constructed to City of Cypress (City) and Orange County Sanitation District (OCSD) standards and shall be approved by the City Engineer prior to development. These improvements may be constructed in a phased sequence depending upon the development process. Facilities shall be dedicated to the City and/or OCSD at the completion of construction.	Prior to issuance of building permits Completion of applicable facilities	Applicant/Developer and City of Cypress Engineer, or designee			

Table 7.A: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures/Standard Conditions/ Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
Regulatory Compliance Measure UTIL-2: **Drainage Improvement Standards.** Drainage system improvements shall be designed and constructed to City and Orange County Flood Control District (OCFCD) standards, if applicable, and will be approved by those agencies prior to development. Improvements may be constructed in a phased sequence depending upon the development process. Facilities shall be dedicated to the City at completion of construction to the extent required by the City (Source: Mitigation Measure No. 64, page 151, Cypress Business and Professional Center Specific Plan EIR).	Prior to issuance of grading permits Completion of applicable facilities	Applicant/Developer and City of Cypress Engineer, or designee			

8.0 LIST OF PREPARERS AND PERSONS CONSULTED

8.1 CITY OF CYPRESS

The following individuals from the City of Cypress (City) were involved in the preparation of this Draft Environmental Impact Report (EIR):

- Jeff Zwack, City Planner
- Alicia Velasco, Planning Director

8.2 EIR PREPARERS

The following individuals were involved in the preparation of this Draft EIR. The nature of their involvement is summarized below.

8.2.1 LSA

The following individuals were involved in the preparation of this Draft EIR:

- Deborah Pracilio, Principal in Charge
- Ryan Bensley, AICP, Associate/Project Manager
- Amy Fischer, Principal/Air Quality, Noise and Global Climate Change Specialist
- Ken Wilhelm, Principal/Traffic
- Sarah Rieboldt, PH.D., Associate/Senior Paleontological Resources Manager
- Kelly McDonald, Assistant Biologist
- Nicole West, CPSWQ, QSD/QSP, Associate
- Dean Arizabal, Associate/Senior Transportation Planner
- J.T. Stephens, Associate/Senior Noise Specialist
- Kerrie Collison, Senior Cultural Resources Manager
- Shelby Cramton, Senior Environmental Planner
- Jonathan Hidalgo, Senior Environmental Planner
- Cara Carlucci, Senior Environmental Planner
- Marlene Watanabe, Environmental Planner
- Abby Annicchiarico, Environmental Planner
- Jazmine Estores, Assistant Environmental Planner
- Gary Dow, Associate, Graphics
- Matt Phillips, Graphics Technician
- Lauren Johnson, Technical Editor
- Chantik Virgil, Senior Word Processor

8.3 TECHNICAL REPORT PREPARERS

The following individuals were involved in the preparation of the technical reports in support of this Draft EIR. The nature of their involvement is summarized below.

8.3.1 Fuscoe Engineering, Inc.

The following individual was involved in the preparation of the *Preliminary Water Quality Management Plan (PWQMP) – Cypress Town Center (June 2020)*:

- Shelby Shirlock, P.E., Project Manager

The following individual was involved in the preparation of the *Preliminary Hydrology Analysis – Cypress Town Center (June 2020)*:

- Shelby Shirlock, P.E., Project Manager

8.3.2 Ganddini Group, Inc.

The following individuals were involved in the preparation of the *Cypress Town Center 7-AC Residential Project Traffic Operations Assessment (November 2020)*:

- Giancarlo Ganddini, T.E., P.T.P., Principal
- Bryan Crawford, Senior Transportation Analyst

The following individuals were involved in the preparation of the *Cypress Town Center 7-AC Residential Project Vehicle Miles Traveled (VMT) Memorandum (September 2020)*:

- Giancarlo Ganddini, T.E., P.T.P., Principal
- Bryan Crawford, Senior Transportation Analyst

8.3.3 GeoTek, Inc.

The following individuals were involved in the preparation of the *Geotechnical Evaluation for Proposed Multi-Family Residential Development West of Walker Street – City of Cypress, Orange County, California (August 2019*):

- Edward H. LaMont, C.E.G., Principal Geologist
- Gaby M. Bogdanoff, P.E., Project Engineer

8.3.4 Partner Engineering and Science, Inc.

The following individuals were involved in the preparation of the *Phase I Environmental Site Assessment Report – Los Alamitos Race Course: 7 Acres [Portion of Parking Lot] (July 2019)*:

- Brooke Hasty, Environmental Scientist
- Amy Rudegeair, Senior Author
- Robert Vaughn, National Client Manager

8.4 PROJECT APPLICANT/DEVELOPER

8.4.1 Melia Homes

The Applicant/Developer was consulted during the preparation of this Draft EIR:

- Chad Brown, Vice President of Planning and Development

8.5 PERSONS CONSULTED

The following individuals were consulted during the preparation of this Draft EIR:

- Anaheim Union High School District
  - Patricia Neely, Director of Facilities, Planning/Design & Construction
- Cypress Police Department (CPD)
  - Scott Ausmus, Lieutenant
- Golden State Water Company (GSWC)
  - Robert N. Hanford, P.E., Manager of Engineering
- Orange County Fire Authority (OCFA)
  - Tamera Rivers, Management Analyst

This page intentionally left blank

9.0 REFERENCES

CHAPTER 2.0: INTRODUCTION

City of Cypress. General Plan. Website: https://www.cypressca.org/government/departments/community-development/planning-division/city-plans (accessed December 2020).

City of Cypress Municipal Code. Website: https://qcode.us/codes/cypress/ (accessed December 2020).

Cypress Town Center and Commons Specific Plan 2.0. Website: https://www.cypressca.org/home/showpublisheddocument?id=9683 (accessed December 2020).

CHAPTER 4.0: EXISTING SETTING, ENVIRONMENTAL ANALYSIS, IMPACTS, AND MITIGATION MEASURES

California Department of Forestry and Fire Protection (CAL FIRE). 2011. Very High Fire Hazard Severity Zones in LRA as Recommended by CALFIRE. Website: https://osfm.fire.ca.gov/media/6739/fhszl_map30.pdf (accessed December 3, 2020).

Section 4.1: Aesthetics

California Department of Transportation (Caltrans). 2015, last modified July 2019. List of Eligible and Officially Designated State Scenic Highways. Website: https://dot.ca.gov/-/media/dot-media/programs/design/documents/desig-and-eligible-aug2019_a11y.xlsx (accessed November 11, 2020).

United States Census Bureau. 2010a. Census Urban Area FAQs. Website: https://www.census.gov/programs-surveys/geography/about/faq/2010-urban-area-faq.html (accessed November 11, 2020).

_____. 2010b. Los Angeles—Long Beach—Anaheim, CA Urbanized Area No. 51445. Website: https://www2.census.gov/geo/maps/dc10map/UAUC_RefMap/ua/ua51445_los_angeles--long_beach--anaheim_ca/DC10UA51445_000.pdf (accessed November 11, 2020).

Section 4.2: Air Quality

California Air Pollution Control Officers Association (CAPCOA). 2017. California Emissions Estimator Model. Version 2016.3.2. Website: http://www.caleemod.com/ (accessed November 2020).

California Air Resources Board (CARB). 2000. Stationary Source Division and Mobile Source Control Division. Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. October.

_____. 2005a. *2005 South Coast Carbon Monoxide Plan (CO Plan).* Website: https://ww2.arb.ca.gov/resources/documents (accessed December 2020).

_____. 2005b. *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB Handbook). April.

_____. 2016. Ambient Air Quality Standard. Website: https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards (accessed December 2020).

_____. 2019a. EMFAC2014 Web Database: 2017 Web Database. Website: https://www.arb.ca.gov/emfac/2014 (accessed November 2020).

_____. 2019b. Off Road Mobile Source Emission Factors. Website: https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-modeling-tools (accessed November 2020).

_____. 2020a. Common Air Pollutants. Website: https://ww2.arb.ca.gov/resources/common-air-pollutants (accessed November 2020).

_____. 2020b. Top Four. Website: https://www.arb.ca.gov/adam/topfour/topfour1.php (accessed November 2020).

Ganddini Group, Inc., 2020. *Traffic Operations Assessment*. September 16, 2020.

South Coast Air Quality Management District (SCAQMD). 2003. *2003 Air Quality Management Plan*. Website: https://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/2003-aqmp (accessed November 2020).

_____. 2008. *Final Localized Significance Threshold Methodology.* July.

_____. 2015. *Amicus Curiae Brief of South Coast Air Quality Management District*, April. Website: www.courts.ca.gov/documents/9-s219783-ac-south-coast-air-quality-mgt-dist-041315.pdf (accessed November 2020).

_____. 2017. *Final 2016 Air Quality Management Plan*. March.

_____. 2018a. Air Quality Significance Thresholds. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf (accessed November 2020).

_____. 2018b. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) Attainment Status for South Coast Air Basin. Website: http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf (accessed November 2020).

Southern California Association of Governments (SCAG). 2020. *Connect SoCal 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy.* Website: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176 (accessed October 2, 2020).

United States Environmental Protection Agency (USEPA). 2014. Criteria Pollutants.

_____. 2020. Outdoor Air Quality Data, Monitor Values Report. Website: https://www.epa.gov/outdoor-air-quality-data/monitor-values-report (accessed November 2020).

Section 4.3: Biological Resources

City of Cypress. 1996. *Inventory of Landmark Trees*. July.

United States Fish and Wildlife Service (USFWS). 2020a. Critical Habitat for Threatened and Endangered Species. GIS Mapping Website: https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77 (accessed October 5, 2020). (

_____. 2020b. IPaC Information for Planning and Consultation. Website: https://ecos.fws.gov/ipac/ (accessed October 5, 2020).

_____. 2020c. Wetlands. The National Wetlands Inventory. Website: https://www.fws.gov/wetlands/ (accessed October 2020).

Section 4.4: Cultural Resources

City of Cypress. 2000. City of Cypress General Plan, Conservation/Open Space/Recreation Element (COSR).

Geotek, Inc. 2019. *Geotechnical Evaluation for Proposed Multi-family Residential Development South of Vessels Circle and West of Walker Street, City of Cypress, Orange County, California* (Geotechnical Evaluation).

LSA Associates, Inc. (LSA). 2020. *Record Search Results for the Cypress Town Center Project in Cypress, Orange County, California* (LSA Project No. CCP1603.08).

Nationwide Environmental Title Research (NETR). 2020. Historic Aerials. Website: https://www.historicaerials.com/viewer (accessed October 30, 2020).

Section 4.5: Energy

California Energy Commission (CEC). 2018. *California Energy Demand, 2018–2030 Revised Forecast*. Publication Number: CEC-200-2018-002-CMF. February. Website: https://efiling.energy.ca.gov/getdocument.aspx?tn=223244 (accessed October 2020).

_____. 2019. *2019 Integrated Energy Policy Report.* California Energy Commission. Docket #19-IEPR-01.

_____. 2020a. *2019 Total System Electric Generation*. Website: https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2019-total-system-electric-generation (accessed November 20, 2020).

_____. 2020b. Electricity Consumption by County and Entity. Website: http://www.ecdms.energy.ca.gov/elecbycounty.aspx; and http://www.ecdms.energy.ca.gov/elecbyutil.aspx (accessed October 2020).

_____. 2020c. Gas Consumption by County and Entity. Website: http://www.ecdms.energy.ca.gov/gasbycounty.aspx; and http://www.ecdms.energy.ca.gov/gasbyutil.aspx (accessed October 2020).

_____. 2020d. Supply and Demand of Natural Gas in California. Website: https://www. energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california (accessed October 2020).

California Public Utilities Commission (CPUC). 2020. Renewables Portfolio Standard (RPS) Program. Website: https://www.cpuc.ca.gov/rps/ (accessed October 2020).

Southern California Edison (SCE). 2020. About Us. Website: https://www.sce.com/about-us/who-we-are (accessed October 2020).

Southern California Gas Company (SoCalGas). 2020. About SoCalGas. Website: https://www3.socalgas.com/about-us/company-profile (accessed October 2020).

United States Energy Information Administration (EIA). 2020a. California State Profile and Energy Estimates. Table F3: Motor Gasoline Consumption, Price, and Expenditure Estimates, 2018. Website: eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_mg.html&sid=CA (accessed October 2020).

_____. 2020b. Electricity Explained. Website: https://www.eia.gov/energyexplained/electricity/ (accessed November 30, 2020).

_____. 2020c. Natural Gas Explained- Use of Natural Gas. Website: https://www.eia.gov/energy explained/index.php?page=natural_gas_use (accessed October 2020).

Section 4.6: Geology and Soils

American Society of Testing and Materials (ASTM). 2019. Standard Test Method for Expansion Index of Soils. ASTM D4829 – 21. ASTM International, West Conshohocken, PA. Website: www.astm.org (accessed December 2020).

Bell, Christopher J., Ernest L. Lundelius, Jr., Anthony D. Barnosky, Russell W. Graham, Everett H. Lindsay, Dennis R. Ruez, Jr., Holmes A. Semken, Jr., S. David Webb, and Richard J. Zakrzewski. 2004. *The Blancan, Irvingtonian, and Rancholabrean Mammal Ages*. Chapter 7 in Michael O. Woodburne, ed., Late Cretaceous and Cenozoic Mammals of North America. pp. 232–314.

Bryant, W.A., and Hart, E.W., 2007, Fault Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps, California Geological Survey: Special Publication 42.

California Department of Conservation (DOC). 1998a. *Historically Highest Groundwater Map,* published within the *Seismic Hazard Zone Report for the Los Alamitos 7.5-Minute Quadrangle.*

_____. 1998b*. Seismic Hazard Zone Report for the Los Alamitos 7.5 Minute Quadrangle, Los Angeles and Orange Counties, California.*

_____. 2010. Fault Activity Map of California. Website: https://www.conservation.ca.gov/cgs/publications/fault-activity-map-of-california (accessed December 2020).

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

_____. 2008. Special Publication 117A. Guidelines for Evaluating and Mitigating Seismic Hazards in California.

City of Cypress. 2000. City of Cypress General Plan, Conservation/Open Space/Recreation Element.

_____. 2001. Cypress General Plan EIR, Section 4.6: Geologic and Seismic Hazards. Website: https://www.cypressca.org/home/showdocument?id=678 (accessed June 24, 2020).

Cohen, K.M., S.C. Finney, P.L. Gibbard, and J.X. Fan. 2020. The ICS International Chronostratigraphic Chart. Updated March 2020. Episodes 36: 199-204.

GeoTek, Inc. 2019. *Geotechnical Evaluation for Proposed Multi-family Residential Development South of Vessels Circle and West of Walker Street, City of Cypress, Orange County, California*. Prepared for Melia Homes. August 12, 2019. GeoTek, Inc. Project No. 2155-CR.

Jefferson, George T. 1991a. A Catalogue of Late Quaternary Vertebrates from California: Part One: Non-marine Lower Vertebrate and Avian Taxa. Natural History Museum of Los Angeles County Technical Reports No. 5, Los Angeles.

_____. 1991b. *A Catalogue of Late Quaternary Vertebrates from California: Part Two: Mammals.* Natural History Museum of Los Angeles County Technical Reports No. 7, Los Angeles.

Miller, W.E. 1971. *Pleistocene Vertebrates of the Los Angeles Basin and Vicinity* (*Exclusive of Rancho La Brea*)*.* Los Angeles County Museum of Natural History Bulletin, Science: No. 10.

Metropolitan Water District of Southern California. 2007. Groundwater Assessment Study, Chapter IV – Groundwater Basin Reports, Orange County Basins – Orange County Basin, September. Website: http://www.mwdh2o.com/PDF_About_Your_Water/Groundwater_Assessment_Study_Report.pdf (accessed November 12, 2020).

Norris, R.M., and R.W. Webb. 1976. *Geology of California*. New York, John Wiley & Sons, Inc. 379 pp.

Reynolds, R.E., and R.L. Reynolds. 1991. *The Pleistocene Beneath our Feet: Near-surface Pleistocene Fossils in Inland Southern California Basins*. In M.O. Woodburne, R.E. Reynolds, and D.P.

Whistler, eds., Inland Southern California: The Last 70 Million Years. San Bernardino County Museum Special Publication 38(3 and 4): 41–43.

Roffers, Peter, D and Bedrossian, T.L. 2010. Geologic Compilation of Quaternary Surficial Deposits in Southern California Onshore Portion of the Long Beach 30 x 60 Quadrangle. Scale: 1:100,000.

Sanders, A.E., R.E. Weems, and L.B. Albright. 2009. Formalization of the Middle Pleistocene "Ten Mile Beds" in South Carolina with Evidence for Placement of the Irvingtonian-Rancholabrean Boundary. Museum of Northern Arizona Bulletin 64:369–375.

Saucedo, George J., H. Harry Greene, Michael P. Kennedy, and Stephen P. Bezore. 2016. Geologic Map of the Long Beach 30-minute by 60-minute Quadrangle, California. Version 2.0. Prepared by the California Geological Survey in Cooperation with the United States Geological Survey (USGS). Map Scale 1:100,000.

Sharp, R.P. 1976. *Geology: Field Guide to Southern California*. Second Edition. Kendall/Hunt Publishing Company. p. 181.

Society of Vertebrate Paleontology (SVP). 2010. *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources.* Society of Vertebrate Paleontology. Impact Mitigation Guidelines Revision Committee, p. 1–11.

Springer, Kathleen, Eric Scott, J. Christopher Sagebiel, and Lyndon K. Murray. 2009. The Diamond Valley Lake Local Fauna: Late Pleistocene Vertebrates from Inland Southern California. In L.B. Albright, III, ed. Papers in Geology, Vertebrate Paleontology, and Biostratigraphy in Honor of Michael O. Woodburne. Museum of Northern Arizona Bulletin 65, pp. 217–236.

United States Geological Survey (USGS). Seismic Design Values for Buildings. Website: https://www.usgs.gov/natural-hazards/earthquake-hazards/design-ground-motions (accessed December 2020).

Yerkes R.F., T.H. McCulloh, J.E. Schoellhamer, and J.G. Vedder. 1965. *Geology of the Los Angeles Basin, California – An Introduction.* United States Geological Survey Professional Paper 420-A. 57 pp.

Section 4.7: Greenhouse Gas Emissions

California Environmental Protection Agency (Cal/EPA). California Air Resources Board (CARB). 2019. California Greenhouse Gas Emissions for 2000 to 2017 Trends of Emissions and Other Indicators. Website: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2017/ghg_inventory_trends_00-17.pdf (accessed November 2018).

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

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

_____. 2014. *First Update to the Climate Change Scoping Plan: Building on the Framework, Pursuant to AB 32, The California Global Warming Solutions Act of 2006*. May 15. Website: http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm (accessed October 2020).

_____. 2017. November. *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*. Website: https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/scoping_plan_2017.pdf (accessed October 2020).

_____. 2018. *Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets*. February. Website: https://ww3.arb.ca.gov/cc/sb375/staff_report_sb375_target_update_june_full_report.pdf (accessed October 2020).

_____. 2020a. California Greenhouse Gas Emissions for 2000 to 2018. Website: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2018/ghg_inventory_trends_00-18.pdf?utm_medium=email&utm_source=govdelivery (accessed October 2020).

_____. 2020b. GHGs Descriptions and Sources in California. Website: ww2.arb.ca.gov/ghg-descriptions-sources (accessed October 2020).

California Energy Commission (CEC). 2006. Emission Performance Standard - SB 1368. September 29, 2006. Website: http://www.energy.ca.gov/emission_standards/ (accessed October 2020).

_____. 2018a. *News Release: Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation*. Website: https://www.energy.ca.gov/news/2018-05/energy-commission-adopts-standards-requiring-solar-systems-new-homes-first#:~:text=First%20in%20Nation-,Energy%20Commission%20Adopts%20Standards%20Requiring%20Solar,New%20Homes%2C%20First%20in%20Nation&text=SACRAMENTO%20%2D%20Moving%20to%20cut%20energy,photovoltaic%20systems%20starting%20in%202020 (accessed October 2020).

_____. 2018b. *Building Energy and Efficiency Standards Frequently Asked Questions*. Website: https://ww2.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf (accessed October 2020).

California Environmental Protection Agency (Cal/EPA). Climate Action Team Report to Governor Schwarzenegger and the Legislature. Website: https://research.fit.edu/media/site-specific/researchfitedu/coast-climate-adaptation-library/united-states/west-coast-amp-hawaix27i/california---statewide/Bonner-et-al.--2010.--Climate-Action-Team-Report-to-State-Officials.pdf (accessed October 2020).

Ganddini Group Inc. 2020a. *Cypress Town Center 7-AC Residential Project Traffic Operations Assessment*. November 5.

Intergovernmental Panel on Climate Change (IPCC). 2013. The Physical Science Basis - Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. AR5 Climate Change 2013: The Physical Science Basis. September 2013. Website: https://www.ipcc.ch/report/ar5/wg1/ (accessed October 2020).

Southern California Association of Governments (SCAG). 2020. *Connect SoCal 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy.* Website: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176 (accessed October 2, 2020).

United Nations Framework Convention on Climate Change (UNFCCC). 2019. GHG Data from UNFCCC. Website: https://unfccc.int/process/transparency-and-reporting/greenhouse-gas-data/ghg-data-unfccc (accessed October 2020).

United States Environmental Protection Agency (USEPA). 2009. EPA: Greenhouse Gases Threaten Public Health and the Environment: Science overwhelmingly shows greenhouse gas concentrations at unprecedented levels due to human activity. December 2009. Website: http://yosemite.epa.gov/opa/admpress.nsf/0/08D11A451131BCA585257685005BF252.240 (accessed October 2020).

_____. 2010. Methane and Nitrous Oxide Emissions from Natural Sources. Website: https://nepis.epa.gov/Exe/ZyPDF.cgi/P100717T.PDF?Dockey=P100717T. PDF (accessed October 2020).

_____. 2020. Draft Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2018. April. Website: www.epa.gov/sites/production/files/2020-02/documents/us-ghg-inventory-2020-main-text.pdf (accessed October 2020).

Section 4.8: Hazards and Hazardous Materials

American Society of Testing and Materials (ASTM). Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E1527-13). ASTM International, West Conshohocken, PA. Website: www.astm.org (accessed December 2020).

California Department of Forestry and Fire Protection (CAL FIRE). 2007. Draft Fire Hazard Severity Zones in LRA. Website: https://osfm.fire.ca.gov/media/6737/fhszs_map30.pdf (accessed November 16, 2020).

City of Cypress General Plan, Safety Element, Emergency Evacuation Routes Map (Exhibit SAF-5). Website: https://www.cypressca.org/government/departments/community-development/planning-division/city-plans (accessed November 16, 2020).

Environmental Data Resources (EDR). 2019. Radius Report. June.

Orange County Airport Land Use Commission (ALUC). 2016. *Airport Environs Land Use Plan for Joint Forces Training Base Los Alamitos.* Website: http://www.ocair.com/commissions/aluc/docs/JFTB-AELUP2016ProposedFINAL.pdf (accessed November 16, 2020).

Partner Engineering and Science, Inc. (Partner). 2019. *Phase I Environmental Site Assessment Los Alamitos Race Course 7 Acres (Portion of Parking Lot), California* (Phase I ESA). July.

Section 4.9: Hydrology and Water Quality

California Department of Conservation. 2019. Orange County Tsunami Inundation Maps. Website: https://www.conservation.ca.gov/cgs/tsunami/maps/orange (accessed November 16, 2020).

California Department of Water Resources. 2004. California's Groundwater Bulletin 118. Coastal Plains of Orange County Groundwater Basin.

County of Orange. 2003. Drainage Area Management Plan (DAMP), A Cooperative Project of the County of Orange, the Cities of Orange County and the Orange County Flood Control District. July 1, 2003.

_____. 2011. Model Water Quality Management Plan (WQMP). May.

_____. 2012. *Construction Runoff Guidance Manual for Contractors, Project Owners, and Developers.* December.

_____. 2013. *Technical Guidance Document (TGD) for the Preparation of Conceptual/Preliminary and/or Project Water Quality Management Plans (WQMPs)* (Technical Guidance Document). December 20, 2013.

Federal Emergency Management Agency (FEMA). 2009. Federal Insurance Rate Map (FIRM) No. 06059C0116J. December 3, 2009.

Fuscoe Engineering, Inc. 2020a. *Preliminary Hydrology Analysis.*

_____. 2020b. *Preliminary Water Quality Management Plan* (On-Site Preliminary Water Quality Management Plan).

_____. 2020c. *Vessels Circle Offsite Improvements Preliminary Water Quality Management Plan* (Off-Site Preliminary Water Quality Management Plan).

GeoTek, Inc. 2019. *Geotechnical Evaluation for Proposed Multi-Family Residential Development South of Vessels Circle and West or Walker Street, City of Cypress, Orange County, California* (Geotechnical Assessment). August 12, 2019.

John L. Hunter and Associates, Inc. 2014. Lower San Gabriel River Watershed Management Program. Website: https://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/watershed_management/san_gabriel/lower_sangabriel/LowerSGR_WMP1.pdf (accessed November 12, 2020).

Los Angeles Regional Water Quality Control Board (RWQCB). 2018. Water Quality and Watersheds: San Gabriel River Watershed. Website: https://www.waterboards.ca.gov/rwqcb4/water_

issues/programs/regional_program/Water_Quality_and_Watersheds/san_gabriel_river_watershed/summary.shtml (accessed November 12, 2020).

Orange County Public Works. 2019. Orange County Flood Division. Santa Ana River Project. Website: https://www.ocflood.com/sarp (accessed November 18, 2020).

Orange County Water District. 2017. Basin 8-1 Alternative – OCWD Management Area. January 1, 2017.

Santa Ana Regional Water Quality Control Board (RWQCB). 1995. Water Quality Control Plan (Basin Plan) for the Santa Ana River Basin (updated June 2019).

State Water Resources Control Board (SWRCB). 2019. California's Areas of Special Biological Significance. Website: https://www.Water boards.ca.gov/water_issues/programs/ocean/asbs_map.shtml (accessed November 18, 2020).

United States Army Corps of Engineers (USACE). Los Angeles District. 2016. Carbon Canyon Dam. Website: http://resreg.spl.usace.army.mil/pages/ccyn.php (accessed November 17, 2020).

Section 4.10: Land Use and Planning

City of Cypress. 2001. General Plan, Housing Element, last updated January 2013.

_____. 2001. General Plan, Land Use Element.

_____. 2017. Cypress Town Center and Commons Specific Plan 2.0.

_____. 2020. City of Cypress Municipal Code.

Southern California Association of Governments (SCAG). 2020. *Connect SoCal 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy.* Website: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176 (accessed October 2, 2020).

Section 4.11: Noise

Airport Land Use Commission (ALUC). 2017. *Airport Environs Land Use Plan for Joint Forces Training Base Los Alamitos*. Amended August 17, 2017. Website: https://www.ocair.com/commissions/aluc/docs/JFTB,LosAlamitos-AELUP2017.pdf (accessed November 2020).

City of Cypress. 2001. General Plan Noise Element.

_____. 2001. General Plan Safety Element.

_____. 2019. Municipal Code. July.

City of Los Alamitos. 2019. Municipal Code. July.

Federal Highway Administration (FHWA). 1977. Highway Traffic Noise Prediction Model, FHWA-RD-77-108.

Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment Manual*. Office of Planning and Environment. Report No. 0123. September 2018. Website: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf (accessed November 2020).

Ganddini 2020. *Cypress Town Center 7-AC Residential Project Traffic Operations Assessment*. September 16.

Governor's Office of Planning and Research (OPR). 2017. State of California General Plan Guidelines.

Institute of Transportation Engineers (ITE). Trip Generation, 10th Edition.

Los Angeles County Airport Land Use Commission (ALUC). 2004. Los Angeles County Airport Land Use Plan. Adopted December 19, 1991, Revised December 1, 2004. Website: http://planning.lacounty.gov/assets/upl/data/pd_alup.pdf (accessed November 2020).

LSA Associates, Inc. (LSA). 2020. *Cypress City Center Project Environmental Impact Report*.

United States Environmental Protection Agency (USEPA). 1978. *Protective Noise Levels, Condensed Version of EPA Levels Document*, EPA 550/9-79-100. November.

Section 4.12: Population and Housing

California Department of Finance. E-5 Population and Housing Estimates for Cities Counties, and the State 2011–2020 with 2010 Census Benchmark. Website: http://dof.ca.gov/Forecasting/Demographics/Estimates/e-5/ (accessed November 12, 2020).

City of Cypress 2014–2021 Housing Element Technical Report (2013), Table 2-25; SCAG Regional Housing Needs Assessment 2014–2021.

_____. 2020a. Current Context, Demographics and Growth Forecast Technical Report: Adopted on September 3, 2020. Website: https://www.connectsocal.org/Documents/Adopted/0903f ConnectSoCal_Demographics-And-Growth-Forecast.pdf (accessed November 12, 2020).

_____. 2020b. Regional Housing Needs Assessment (RHNA). Website: https://scag.ca.gov/rhna (accessed November 12, 2020).

_____. 2020c. SCAG 6th Cycle Draft RHNA Allocation Based on Final RHNA Methodology and Final Connect SoCal. Website: http://www.scag.ca.gov/programs/Documents/RHNA/RHNA-DraftAllocations-090320 Updated.pdf (accessed November 12, 2020).

_____. 2020d. The *2020–2045 RTP/SCS Final Demographics and Growth Forecast*. Website: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growth-forecast.pdf?1606001579 (accessed December 3, 2020).

United States Census Bureau. 2014-2018 American Community Survey 2018 5-Year Estimate Table S0101. Website: https://data.census.gov/cedsci/table?q=S0101&g=0500000US06059_1600000US0617750&tid=ACSST5Y2018.S0101&hidePreview=true (accessed November 12, 2020).

Section 4.13: Public Services

Anaheim Union High School District (AUHSD). 2020. Response to School Services Questionnaire. Received November 13, 2020.

California Department of Education. DataQuest. Enrollment Data 2019–2020. Website: https://dq.cde.ca.gov/dataquest/ (accessed November 11, 2020).

California Department of Finance. E-5 Population and Housing Estimates for Cities Counties, and the State 2011–2020 with 2010 Census Benchmark. Website: http://dof.ca.gov/Forecasting/Demographics/Estimates/e-5/ (accessed November 11, 2020).

City of Cypress. 2015. *Barton Place Final Environmental Impact Report.* October.

_____. 2017. Cypress City Council Breaks Ground at Mackay Park. January 23. Website: http://www.cypressca.org/Home/Components/News/News/54/ (accessed November 11, 2020).

_____. 2019. Cypress Receives Donation of Over 8 Acres for New Park from Los Alamitos Race Course, May 21, 2018. Website: https://www.cypressca.org/Home/Components/News/News/1158/17?arch=1 (accessed November 11, 2020).

_____. 2020a. Cypress Park. Website: https://www.cypressca.org/how-do-i/proposed-park (accessed December 4, 2020).

_____. 2020b. Cypress Police Department Overview. Website: https://www.cypressca.org/government/departments/police/inside-cypress-pd/the-community-we-serve#overview (accessed November 10, 2020).

Cypress Police Department. Response to Police Protection Questionnaire. Received November 16, 2020.

Orange County Fire Authority (OCFA). 2020a. Fiscal Year 2019–2020 Adopted Budget. Website: https://www.ocfa.org/Uploads/Transparency/OCFA%202019-2020%20Adopted%20Budget.pdf (accessed November 10, 2020)

_____. 2020b. Member Cities. Website: https://www.ocfa.org/aboutus/PartnerCities.aspx (accessed November 10, 2020).

_____. 2020c. Operations. Website: https://www.ocfa.org/AboutUs/Departments/Operations.aspx (accessed November 10, 2020).

_____. 2020d. Operations Division 7. Website: https://www.ocfa.org/AboutUs/Departments/OperationsDirectory/Division7.aspx (accessed November 10, 2020).

_____. 2020e. 2019 Statistical Annual Report. Website: https://www.ocfa.org/Uploads/Transparency/OCFA%20Annual%20Report%202019.pdf (accessed November 10, 2020).

_____. 2020f. Response to Fire Services Questionnaire. Received November 17, 2020.

Orange County Public Libraries (OCPL). 2020. About OCPL. Website: http://www.ocpl.org/services/about (accessed November 11, 2020).

State of California, State Allocation Board. 2007. *Office of Public School Construction, School Facility Program Handbook*. April.

State of California, Office of Public School Construction. 2019. School Facility Program Handbook. January. Website: https://www.dgs.ca.gov/-/media/Divisions/OPSC/Services/Guides-and-Resources/SFP_Hdbk_ADA.ashx?la=en&hash=14D0F03EABD3AF437F3F4E2FDE1A602AFDFEE6C2 (accessed November 16, 2020).

Section 4.14: Recreation

California Department of Finance. E-5 Population and Housing Estimates for Cities Counties, and the State 2011–2020 with 2010 Census Benchmark. Website: http://dof.ca.gov/Forecasting/Demographics/Estimates/e-5/ (accessed November 12, 2020).

City of Cypress. 2001. General Plan Conservation/Open Space/Recreation Element.

_____. 2015. *Barton Place Final Environmental Impact Report*. October.

_____. 2019. Cypress Receives Donation of Over 8 Acres for New Park from Los Alamitos Race Course, May 21, 2018. Website: https://www.cypressca.org/Home/Components/News/News/1158/17?arch=1 (accessed November 11, 2020).

_____. 2020a. Facility and Park Locations. Website: https://www.cypressca.org/government/departments/recreation-community-services/facility-park-locations (accessed November 11, 2020).

_____. 2020b. Facility & Park Locations: Mackay Park Webpage. Website: https://www.cypressca.org/Home/Components/FacilityDirectory/FacilityDirectory/66/240 (accessed November 11, 2020).

Section 4.15: Transportation

California Building Industry Association v. Bay Area Air Quality Management District (2015) 62 Cal. 4th 369.

City of Cypress. 2001. General Plan, Circulation Element.

City of Los Alamitos. 2015. General Plan, Mobility and Circulation Element.

County of Orange. 2019. *Orange County Congestion Management Program* (CMP).

Ganddini Group, Inc. 2020a. *Cypress Town Center 7-AC Residential Project Traffic Operations Assessment*. November 5.

_____. 2020b. *Cypress Town Center 7-AC Residential Project Vehicle Miles Traveled Memorandum*. September 16.

Governor's Office of Planning and Research (OPR). 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR Technical Advisory). December.

Institute of Transportation Engineers (ITE). 2017. *Trip Generation Manual*, 10th Edition.

Section 4.17: Utilities and Service Systems

California Energy Commission (CEC). 2018a. 2018 Total System Electric Generation. Website: https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2019-total-system-electric-generation/2018 (accessed November 11, 2020)

_____. 2018b *California Energy Demand, 2018–2030 Revised Forecast*. Publication Number: CEC-200-2018-002-CMF. February. Website: https://efiling.energy.ca.gov/getdocument.aspx?tn=223244 (accessed October 2020).

_____. 2020a. Electricity Consumption by County. Website: https://ecdms.energy.ca.gov/elecbycounty.aspx (accessed November 11, 2020).

_____. 2020b. Electricity Consumption by Entity. Website: http://www.ecdms.energy.ca.gov/elecbyutil.aspx (accessed November 11, 2020)

_____. 2020c. Gas Consumption by Entity. Website: http://www.ecdms.energy.ca.gov/gasbyutil.aspx (accessed November 11, 2020).

_____. 2020d. Supply and Demand of Natural Gas in California. Website: https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california (accessed November 11, 2020).

Golden State Water Company (GSWC). 2016. *2015 Urban Water Management Plan, West Orange.*

_____. 2020a. Los Alamitos Customer Service Area. Website: http://www.gswater.com/los-alamitos/ (accessed November 11, 2020).

_____. 2020b. Potable Water Services Questionnaire. Received November 17, 2020.

Orange County Public Works. OC Watersheds. 2003 Drainage Area Management Plan (DAMP). Website: https://cms.ocgov.com/gov/pw/watersheds/documents/damp/mapplan.asp (accessed December 2020).

Orange County Sanitation District (OCSD). 2019a. Budget Update Fiscal Year 2019–2020. Website: https://www.ocsd.com/Home/ShowDocument?id=28411 (accessed November 20, 2020).

_____. 2019b. Western Regional Sewers Program Webpage. Website: https://www.ocsd.com/residents/future-projects/western-regional-sewers (accessed November 23, 2020).

_____. 2020a. *2019-2020 Annual Report.* Website: https://www.ocsd.com/Home/ShowDocument?id=30061 (accessed November 11, 2020).

_____. 2020b. *2019-2020 Annual Report Resource Protection Division* Pretreatment Program. Website: https://www.ocsd.com/Home/ShowDocument?id=30137 (accessed November 11, 2020).

_____. 2020c. Capital Improvement Program Fiscal Year 2019/2020. Website: https://www.ocsd.com/Home/ShowDocument?id=29999 (accessed November 11, 2020).

_____. 2020d. Facts and Key Statistics Webpage. Website: https://www.ocsd.com/services/regional-sewer-service (accessed November 11, 2020).

Orange County Waste & Recycling (OCWR). 2020. Landfill Information. Website: http://www.oclandfills.com/landfill (accessed November 11, 2020).

Southern California Edison (SCE). 2020. About Us. Website: https://www.sce.com/about-us/who-we-are (accessed November 11, 2020).

Southern California Gas Company (SoCalGas). Company Profile: About SoCalGas. Website: https://www.socalgas.com/about-us/company-profile (accessed November 11, 2020).

U.S. Energy Information Administration (EIA). 2019. Southern California Daily Energy Report. Website: https://www.eia.gov/special/disruptions/socal/winter/#commentary (accessed November 11, 2020).

Chapter 5.0: Alternatives

City of Cypress. 2000. General Plan, with associated updates.

County of Orange. 2019. *Orange County Congestion Management Program* (CMP).

Cypress School District. 2019. Request for Proposals for the Purchase or Lease of School District Surplus Real District Property. July 17. Website: https://4.files.edl.io/6f81/07/29/19/142046-cad7a329-2195-4051-8685-a73209f28dbd.pdf (accessed December 15, 2020).

Governor's Office of Planning and Research (OPR). 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR Technical Advisory). December.

Orange County Department of Education. 2019. Cypress School District Looks to Acquire New Administrative Headquarters. September 17. Website: https://newsroom.ocde.us/cypress-school-district-moves-to-acquire-new-administrative-headquarters/#:~:text=The%20Cypress%20School%20District%20has,more%20than%2050%20years%20ago (accessed December 15, 2020).

Southern California Association of Governments (SCAG). 2020. Connect SoCal 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy. Website: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176 (accessed October 2, 2020).