Draft Environmental Impact Report

SCH No. 2022060598

Brea Gaslight Square Redevelopment Project

City of Brea, California

Lead Agency:

City of Brea
1 Civic Center Circle
Brea, CA 92821

January 25, 2023

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Lead Agency
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Brea, CA 92821

CEQA Consultant
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Project Applicant
Manley Fanticola Holdings, LLC

Lead Agency Discretionary Permits
General Plan Amendment (GPA 2022-02)
Zone Change Application (ZCA 2022-02)
Plan Review (PR 2022-02)
Conditional Use Permit (CUP 2022-03)

January 25, 2023

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ACRONYMS AND ABBREVIATIONS

Acronym	Definition
§	Section
>	greater than
≥	greater than or equal to
a.m.	Ante Meridiem (between the hours of midnight and noon)
AB	Assembly Bill
AB 32	Global Warming Solutions Act of 2006
AB 52	Native Americans: California Environmental Quality Act
AB 1279	California Climate Crisis Act
AB 1493	Pavley Fuel Efficiency Standards
AB 1327	California Solid Waste Reuse and Recycling Act
AB 939	California Solid Waste Integrated Management Act
AB 1881	California Assembly Bill 1881, California Water Conservation Act of 2006
AC	Acres
ACHP	Advisory Council on Historic Preservation
ACMs	Asbestos Containing Materials
ACOE	Army Corps of Engineers
ACWM	asbestos-containing waste materials
A.D.	Anno Domini
ADT	Average daily traffic
AELUP	Airport Environs Land Use Plan
AFY	Acre Feet per Year
ALUC	Airport Land Use Commission
amsl	Above Mean Sea Level
A-P Act	Alquist-Priolo Earthquake Fault Zoning Act
APS	Alternative Planning Strategy
APSA	Aboveground Petroleum Storage Act
APN	Assessor Parcel Number
AQIA	Air Quality Impact Analysis
AQMP	Air Quality Management Plan
ATP	Active Transportation Plan
AVR	average vehicle ridership
BACM	Best Available Control Measure
BACT	Best Available Control Technology
BAU	Business as Usual

BMPs	Best Management Practices
BOUSD	Brea Olinda Unified School District
C-P	Administrative and Professional Office (zoning designation)
C_2F_6	Hexafluoroethane
C_2H_6	Ethane
CA	California
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalARP	California Accidental Release Prevention
CalEEMod™	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CalFire	California Department of Forestry and Fire Protection
CalFire-OSFM	Cal Fire – Office of the State Fire Marshall
CALGreen Code	California Green Building Standards Code
Cal OES	Governor's Office of Emergency Services
Caltrans	California Department of Transportation
Calveno	California Vehicle Noise
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CAT	Climate Action Team
CBSC	California Building Standards Code
CCR	California Code of Regulations
CCAA	California Clear Air Act
CCCC	California Climate Change Center
CCRUS	Carbon Capture, Removal, Utilization, and Storage (Program)
CCUS	carbon capture, utilization or storage
CD	Consistency Determination
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CDR	carbon dioxide removal
CDWC	California Domestic Water Company
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFCs	Chlorofluorocarbons
CFGC	California Fish and Game Code
C_2H_6	ethane

C_2F_6	Hexaflouroethane
CF_4	Tetraflouromethane
CF_3CH_2F	HFC-134a
CFS	Cubic Feet per Second
CGC	California Government Code
CGS	California Geologic Survey
C_2H_6	Ethane
CH_4	Methane
CH_3CHF_2	HFC-152a
CHF_3	HFC-23
CIWMB	California Integrated Waste Management Board
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNRA	California Natural Resources Agency
CO	Carbon Monoxide
COG	Council of Governments
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
COHb	carboxyhemoglobin
COP	Conference of Parties
CPEP	Clean Power and Electrification Pathway
CPUC	California Public Utilities Commission
CSU	California State University
CTR	California Toxics Rule
CUP	Conditional Use Permit
CUPA	California Unified Program Agencies
CWA	Clean Water Act
CWC	California Water Code
cy	Cubic Yards
dB	Decibel
dBA	A-weighted Decibels
DCV	Design Capture Volume
DIF	Development Impact Fee
DOE	Determination of Eligibility
DOSH	Division of Occupational Safety and Health
DMA	Drainage Management Area
DMV	Department of Motor Vehicles
DPM	Diesel Particulate Matter

DTSC	Department of Toxic Substances Control
E	Existing
E+P	Existing Plus Project
EIR	Environmental Impact Report
EO	Executive Order
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-To-Know Act
EPS	Emission Performance Standard
ESA	Endangered Species Act
et seq.	et sequentia, meaning "and the following"
F	Fahrenheit
FAR	floor area ratio
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone
FIRM	Flood Insurance Rate Map
FHWA	Federal Highway Administration
FICON	Federal Interagency Committee on Noise
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
FYI	For Your Information
GBV	Ground-based vibrtation
GBN	Ground-based noise
GCC	Global Climate Change
GHG	Greenhouse Gas
GIS	Geographic Information System
GPA	General Plan Amendment
GPBP	General Plan Buildout
gpd	Gallons per Day
gpm	Gallons per minute
GPS	Global Positioning System
GSA	Groundwater Sustainability Agencies
GSP	Groundwater Sustainability Plan
GWP	Global Warming Potential
H_2O	Water Vapor
HCP	Habitat Conservation Plan

HFCs	Hydrofluorocarbons
HMBEP	Hazardous Materials Business Emergency Plan
HMIS	Hazardous Materials Inventory Statements
HMMP	Hazardous Materials Management Plan
HMTA	Hazardous Materials Transportation Act
HMTAUSA	Hazardous Materials Transportation Uniform Safety Act
HSC	Health and Safety Code
HSWA	Federal Hazardous and Solid Waste Amendments
HWCL	Hazardous Waste Control Law
I	Interstate
I-5	Interstate 5
I-10	Interstate 10
I-605	Interstate 605
i.e.	that is
In	inches
In/sec	inches per second
In/yr	inches per year
IPCC	Intergovernmental Panel on Climate Change
ISO	Independent System Operator
ISTEA	Intermodal Surface Transportation Efficiency Act
ITP	Incidental Take Permit
IWMA	Integrated Waste Management Act
JPA	Joint Powers Authority
kg	kilogram
kBTU	kilo-British thermal units
kWh	kilowatt-hour
LBP	Lead based paint
lbs	pounds
lbs/day	pounds per day
LBP	lead based paints
LCA	Life-cycle analysis
LCD	Liquid crystal display
LCFS	low carbon fuel standard
LEA	Lead enforcement agency
Leq	equivalent continuous sound level

LHMP	Local Hazard Mitigation Plan
LOS	Level of Service
LRA	Local Responsibility Area
LST	Localized Significance Threshold
Lw	sound power level
M_3	Cubic Meter
MACT	Maximum achievable control technology
MBTA	Migratory Bird Treaty Act
MET	Metropolitan Water District of Southern California
mg	milligrams
MGD	million gallons per day
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Program
MMTs	million metric tons
MMTCO2e	million metric tons of carbon dioxide equivalent
MPO	Metropolitan Planning Organization
MRZ-1	Mineral Resource Zone 1
MT	metric ton
MTCO2e	Metric Tons of Carbon Dioxide Equivalent
MU-III	Mixed Use III (zoning designation)
MWDOC	Municipal Water District of Orange County
MWELO	Model Water Efficient Landscape Ordinance
N/A	Not Applicable
N_2	Nitrogen
n.d.	no date
NAHC	Native American Heritage Commission
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NCCP	Natural Community Conservation Planning
NDC	nationally determined contributions
NF_3	Nitrogen trifluoride
NHPA	National Historic Preservation Act
NIOSH	National Institute for Occupational Safety and Health
NMFS	National Marine Fisheries Service
No.	Number
NO	Nitric Oxide
NO_2	Nitrogen Dioxide

NO_X	Nitrogen Oxides
N_2	Nitrogen
N_2O	Nitrous Oxide
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NPS	non-point source
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NTR	National Toxics Rule
NVIA	Noise and Vibration Impact Assessment
O_2	Oxygen
O_3	Ozone
OCTA	Orange County Transportation Authority
OC San	Orange County Sanitation District
OCEMA	Orange County Environmental Management Agency
OCWR	Orange County Waste and Recycling
OEHHA	Office of Environmental Health Hazard Assessment
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Act
OSHA	Occupational Safety and Health Administration
OYC	Opening Year Cumulative
P-D	Precise Development (zoning designation)
Pb	Lead
PCBs	Polychlorinated biphenyls
PFCs	Perfluorocarbons
p.m.	Post Meridiem (between the hours of noon and midnight)
PM	Particulate Matter
$PM_{2.5}$	Fine Particulate Matter (2.5 microns or smaller)
PM_{10}	Fine Particulate Matter (10 microns or smaller)
ppm	parts per million
pp.	pages
PPV	peak particle velocity
PRC	Public Resources Code
PR	Plan Review
PWL	power level

RCNM	Roadway Construction Noise Model
RCRA	Resource Conservation and Recovery Act
REMEL	Reference Mean Emission Level
RHNA	Regional Housing Needs Assessment
rms	root mean square
ROGs	Reactive Organic Gasses
RPS	Renewable Portfolio Standards
RTP	Regional Transportation Plan
RTPA	Regional Transportation Planning Agency
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SF/s.f.	square foot or square feet
SAFE	Safer Avenues for Everyone
SAFER	Supporters Alliance for Environmental Responsibility
SARA	Superfund Amendments and Reauthorization Act
SB18	Tribal Cultural Places Act
SB	Senate Bill
SB 350	Clean Energy and Pollution Reduction Act of 2015
SCAB	South Coast Air Basin
SCAG	Sothern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCH	California State Clearinghouse (Office of Planning and Research)
SCS	Sustainable Communities Strategy
SCE	Southern California Edison
SDWA	Safe Drinking Water Act
SF_6	Sulfur Hexafluoride
SGMA	Sustainable Groundwater Management Act
SHA	Safe Harbor Agreement
SHMA	Seismic Hazards Mapping Act
SHPO	State Historic Preservation Officer
SHRC	State Historical Resources Commission
SIP	State Implementation Plan
SLPS	Short-Lived Climate Pollution Strategy
SNUR	Significant New Use Rule
SO_2	Sulfur Dioxide
SO_4	Sulfates
SO_X	Sulfur Oxides

SoCalGas	Southern California Gas Company
SOI	Sphere of Influence
SR	State Route
SR-57	State Route 57
SR-90	State Route 90 (Imperial Highway)
SRRE	Source Reduction and Recycling Element
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
SWRCB	Storm Water Resources Control Board
TAZ	Traffic Analysis Zones
TBD	To be determined
TEA-21	Transportation Equality Act for 21st Century
TIF	Traffic Impact Fee
Tpd	tons per day
TSCA	Toxic Substance Control Act
µg	microgram
μgm^3	microgram per cubic meter
U.S.	United States
USCB	United States Census Bureau
USDA	U.S. Department of Agriculture
USFWS	United States Fish and Wildlife Service
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	Vehicle Miles Traveled
VOCs	Volatile Organic Compounds
WDR	Waste Discharge Requirements
WQMP	Water Quality Management Plan
WMI	Water Management Initiative
WRI	World Resources Institute
WSCP	Water Shortage Contingency Plan
WRRA	Water Reuse and Recycle Act
Yr	year
ZC	Zone change
ZORI	Zones of Required Investigation

1.0 INTRODUCTION

This Environmental Impact Report (EIR) is an informational document that represents the independent judgment of the City of Brea, acting as the Lead Agency pursuant to the California Environmental Quality Act (CEQA), and evaluates the physical environmental effects that could result from constructing and operating the proposed Brea Gaslight Square Redevelopment Project (hereafter, the "Project"). To implement the Project, the Project Applicant has requested the City of Brea's approval of a General Plan Amendment (GPA No. 2022-02), Zone Change (ZC No. 2022-02), Plan Review (PR No. 2022-03), and Conditional Use Permit (CUP No. 2022-03). Other related discretionary and administrative actions that are required to construct and operate the Project also are described in this EIR.

When the term "Project" is used in this EIR with the initial letter capitalized, the term shall mean all aspects of the planning, construction, and operation of the proposed Project, including all discretionary and administrative approvals and permits required for its implementation. When the terms "Project Applicant" or "Applicant" are used, the terms shall mean Manley Fanticola Holdings, LLC, which is the entity that submitted applications to the City of Brea to entitle the Project Site as proposed and as evaluated in this EIR.

1.1 PURPOSES OF CEQA AND THIS EIR

As stated by CEQA Guidelines Section 15002(a), the basic purposes of CEQA are to:

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

Following preliminary review of the Project's application materials, the City of Brea concluded that the Project and its associated implementing actions have the *potential* to result in significant environmental effects; as such, the City proceeded with preparation of this EIR pursuant to CEQA Guidelines Section 15060(d). The City determined that a Project EIR, as described in CEQA Guidelines Section 15161, would be required. Accordingly, this document serves as a Project EIR. As required by CEQA Guidelines Section 15161, this Project EIR shall "…focus primarily on the changes in the environment that would result from the development project," and "…examine all phases of the project including planning, construction, and operation." Also, in conformance with CEQA Guidelines Section 15121(a), the purposes of this EIR are to: (1) disclose information by informing public agency decision makers and the public generally of the significant environmental effects associated with all phases of the Project, (2) identify possible ways to minimize or avoid

those significant effects, and (3) to describe a reasonable range of alternatives to the Project that would feasibly attain most of the basic Project objectives but would avoid or substantially lessen its significant environmental effects.

1.2 SUMMARY OF THE PROJECT EVALUATED BY THIS EIR

The Project Applicant proposes to redevelop the southern 0.95-acre of the 1.88-acre Project Site containing existing development located at 255 East Imperial Highway, within the City of Brea, Orange County, California. Under existing conditions, the southern 0.95-acre of the Project Site is currently developed with four commercial/office buildings, including two 2,799 square foot (s.f.) office buildings, a 3,166 s.f. office building, and a two-story office/commercial building that contains 10,109 s.f. of floor space. The Project Applicant proposes the demolition of the four existing buildings and the redevelopment of this portion of the Project Site with two new commercial buildings. A 6,000 s.f. commercial building is proposed at the northeast corner of South Orange Avenue and Imperial Highway, which would include a 2,400 s.f. sit-down restaurant and 3,600 s.f. of retail or medical office uses. In addition, an approximate 2,000 s.f. drive-through restaurant is proposed at the northwest corner of South Flower Avenue and Imperial Highway. The Project also includes the installation of associated site improvements, including drive aisles, parking areas, landscaping, utility infrastructure, exterior lighting, and walls/fencing. No tenants are yet identified to occupy the proposed new buildings.

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

- **General Plan Amendment No. 2022-02 (GPA No. 2022-02)** proposes to change the entire 1.88-acre Project Site's existing land use designation of Office/Financial to Mixed Use III. The change of General Plan designation would be required to permit the proposed Project to implement the proposed retail, medical, and restaurant uses.

- **Zone Change No. 2022-02 (ZC No. 2022-02)** proposes to change the entire 1.88-acre Project Site's existing zoning of Administrative and Professional Office (C-P) with a Precise Development (P-D) overlay to Mixed Use III (MU-III). The zone change would be required to permit the proposed Project to implement the proposed retail, medical, and restaurant uses.

- **Plan Review No. 2022-03 (PR No. 2022-03)** proposes a Plan Review (PR) for the Project Site that provides for the construction and operation of the two proposed commercial buildings and associated site improvements on the southern 0.95-acre portion of the Project Site. The proposed buildings would include one 6,000 s.f. building with a 2,400 s.f. restaurant and a 3,600 s.f. retail or medical office, and a 2,000 s.f. building with a drive-through restaurant. The PR application materials depict a conceptual layout for the proposed buildings and associated physical design features, conceptual architectural design for the buildings and a conceptual landscaping plan.

- **Conditional Use Permit No. 2022-03 (CUP No. 2022-03)** would be required to permit the proposed drive-through restaurant within the Mixed Use III zone, as codified in Section 20.258.010 of the City's Municipal Code. As described by § 20.408.030 (Conditional Use Permits) of the City's Municipal Code, conditional use permits are "for those land uses which require special consideration in a particular zone or in the city as a whole." As part of the City's review of proposed CUP No. 2022-03, the City will review the Project to evaluate the appropriateness of the proposed drive-through use with respect to adjacent uses. In approving CUP No. 2022-03, the City may impose certain safeguards to protect the health, safety, and general welfare as conditions of approval. (Brea, 2022a, §§ 20.258.010 and 20.408.030)

All components of the Project are described in more detail in EIR Section 3.0, *Project Description*.

1.3 Prior CEQA Review

The Project Site is located within the geographical limits of the City of Brea and is covered by the City's General Plan, which provides the fundamental framework to guide future decision-making about development, resource management, public safety, public services, and general community well-being. The Final Environmental Impact Report for the Brea General Plan was approved in April 2003 and the City of Brea adopted its General Plan on August 19, 2003. These two documents are herein incorporated by reference pursuant to CEQA Guidelines Section 15150 and is available for public review at the City of Brea, Planning Division, 1 Civic Center Circle, Brea, CA 92821.

1.4 Legal Authority

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

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

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

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

This EIR fulfills the CEQA environmental review requirements for the proposed General Plan Amendment (GPA No. 2022-02), Zone Change (ZC No. 2022-02), Plan Review (PR No. 2022-03), and Conditional Use Permit (CUP No. 2022-03), as well as all other governmental discretionary and administrative actions related to the Project.

1.5 Responsible and Trustee Agencies

The California Public Resource Code Section 21104 requires that all EIRs be reviewed by responsible and trustee agencies (see also CEQA Guidelines Section 15082 and Section 15086(a)). As defined by CEQA Guidelines Section 15381, "the term 'Responsible Agency' includes all public agencies other than the Lead Agency that have discretionary approval power over the project." A "Trustee Agency" is defined in CEQA Guidelines Section 15386 as "a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California." The known Responsible and Trustee Agencies for the Project are listed below. Regardless, this EIR can be used by any Trustee Agency or Responsible Agency, whether identified in this EIR or not, as part of their decision-making processes in relation to the proposed Project.

- **Santa Ana Regional Water Quality Control Board (RWQCB)** is identified as a Trustee Agency that is responsible for the protection of California's water resources and water quality. The Santa Ana RWQCB is responsible for issuance of a National Pollutant Discharge Elimination System (NPDES) Permit to ensure that during and after construction of the Project, on-site water flows do not result in siltation, other erosional actions, or degradation of surface or subsurface water quality.

- **Southern California Edison (SCE)** is identified as a Responsible Agency pertaining to approvals required for the removal of above-ground power poles and undergrounding of overhead power lines.

- **Southern California Gas Company (SoCalGas)** is identified as a Responsible Agency pertaining to approvals required for natural gas connections.

- **California Department of Transportation (Caltrans)** is identified as a Responsible Agency responsible for issuance of an encroachment permit, should S. Flower Avenue be closed to end in a cul-de-sac at Imperial Highway.

1.6 EIR Scope, Format, and Content

1.6.1 EIR Scope

The City filed a Notice of Preparation (NOP) with the California Office of Planning and Research (State Clearinghouse) to indicate that an EIR would be prepared to evaluate the Project's potential to impact the environment. The NOP was filed with the State Clearinghouse and distributed to potential Responsible Agencies, Trustee Agencies, other interested parties, and property owners within 500 feet of the Project Site on June 27, 2022, for a 30-day public review period. The NOP was distributed for public review to solicit responses that would help the City identify the full scope and range of potential environmental concerns associated with the Project so that these issues could be fully examined in this EIR.

In addition, a publicly-noticed EIR Scoping Meeting was held on June 28, 2022. The EIR Scoping Meeting provided public agencies, interested parties, and members of the general public an additional opportunity to learn about the Project, the CEQA review process, and how to submit comments on the scope and range of environmental concerns to be addressed in this EIR.

The NOP, public review distribution list, and written comments received by the City during the NOP public review period are provided in *Technical Appendix A* to this EIR. Substantive issues raised in response to the NOP and during the Scoping Meeting are summarized below in Table 1-1, *Summary of NOP and Scoping Meeting Comments*. The purpose of this table is to present a summary of the environmental topics that were expressed by public agencies, interested parties, and members of the general public to be of primary interest. Table 1-1 is not intended to list every comment received by the City during the NOP review period. Regardless of whether or not an environmental or CEQA-related comment is listed in the table, all relevant comments received in response to the NOP and during the EIR Scoping Meeting are addressed in this EIR.

Table 1-1 Summary of NOP and Scoping Meeting Comments

Commentor	Date	Comment	Section in this EIR Where Comment(s) is Addressed
Scoping Meeting Verbal Comments	June 29, 2022	• Concerns with a drive-thru located near a school	4.12, *Transportation*
		• Concerns with the evaluation of pedestrian safety and school cross walks	4.12, *Transportation*
		• Concerns with Mixed Use III land use designation and allowable uses	4.10, *Land Use and Planning*
		• Concerns with air quality impact analysis	4.2, *Air Quality*
		• Concerns with project approvals addressing unknown tenants	3.0, *Project Description*

Table 1-1 Summary of NOP and Scoping Meeting Comments

Commentor	Date	Comment	Section in this EIR Where Comment(s) is Addressed
		• Concerns with project notifications	3.0, *Project Description*
		• Concerns with off-site parking impacts	4.12, *Transportation*
Scoping Meeting Verbal Comments	June 29, 2022	• Concerns with current heavy traffic on Flower Avenue in front of elementary school	4.12, *Transportation*
		• Concerns with approval of CUP in relation to protecting the health, safety, and welfare of students, neighbors, and seniors	4.2, *Air Quality* 4.11, *Noise* 4.12, *Transportation*
		• Concerns with street paving and width (capacity)	4.12, *Transportation*
		• Concerns with maintenance of the Project Site property	3.0, *Project Description*
		• Concerns with drive-thru hours of operation	3.0, *Project Description* 4.11, *Noise* 4.12, *Transportation*
		• Concerns with the tenants of the Project being unknown	3.0, *Project Description*
		• Concerns with parking requirements	4.12, *Transportation*
		• Concerns with pedestrian safety in parking lot with drive-thru	4.12, *Transportation*
		• Concerns with traffic on Flower Avenue	4.12, *Transportation*
		• Concerns with drive-thru movements	4.12, *Transportation*
		• Concerns with traffic congestion, cut-through traffic, and potential signal at Flower and Imperial	4.12, *Transportation*
		• Concerns about vehicle queues	4.12, *Transportation*
		• Concerns about safety with pedestrian crossings from south of Imperial	4.12, *Transportation*
Scoping Meeting Verbal Comments	June 29, 2022	• Concerns with cars entering the Project Site from Orange Avenue	4.12, *Transportation*
		• Concerns with project notification of area residents	S.0, *Executive Summary* 1.0, *Introduction*
Scoping Meeting Verbal Comments	June 29, 2022	• Concerns with access off Imperial and Flower Avenue	4.12, *Transportation*
		• Concerns with parking for the drive-thru	4.12, *Transportation*
Scoping Meeting Verbal Comments	June 29, 2022	• Concerns with the drive-thru and whether the drive-thru can be on Orange Avenue instead of Flower	4.12, *Transportation*

Table 1-1 Summary of NOP and Scoping Meeting Comments

Commentor	Date	Comment	Section in this EIR Where Comment(s) is Addressed
California Department of Transportation (Caltrans) District 12	July 20, 2022	• Requests discussion of multi-modal and transit mobility connections to existing bus services and train stations	4.12, *Transportation*
		• Encourages use of transit to reduce congestion	4.12, *Transportation*
		• Requests consideration of bicycle, pedestrian, electric vehicle charging and ridesharing opportunities at the Project Site	4.12, *Transportation*
		• Requests copies of all traffic related documents for review and informs that TIA data should be less than 2 years old	4.12, *Transportation*
		• Advises that any project work in the vicinity of the State ROW would require an encroachment permit	1.0, *Introduction* 4.12, *Transportation*
Native American Heritage Commission (NAHC)	July 1, 2022	• Reminder of the SB 18 and AB 52 consultation requirements, and recommendations for cultural resource assessments	4.4, *Cultural Resources* 4.13, *Tribal Cultural Resources*
Brea Olinda Unified School District (BOUSD)	July 19, 2022	• References the Laurel Traffic Study for initial information regarding increased traffic on South Flower Avenue near the elementary school	4.12, *Transportation*
Safer Avenues for Everyone (SAFE)	July 18, 2022	• Concerns with traffic and parking	4.12, *Transportation*
		• Concerns with mid-block crossing of pedestrians	4.12, *Transportation*
		• Encourages the City to work with Caltrans, BOUSD, and the community to address traffic concerns	4.12, *Transportation*
		• Requests an in-depth analysis of the Project to ensure safety of community	4.10, *Land Use and Planning* 4.12, *Transportation*
Shute Mihaly & Weinberger, LLP	July 20, 2022	• Concerns with the safety of Laurel Elementary students and pedestrians and the intersection of Imperial Highway and South Flower Avenue	4.12, *Transportation*
		• Concerns with the Project's inconsistency with the City's zoning code and general plan	4.10, *Land Use and Planning*
		• Concerns with the adequacy of the NOP and that it fails to describe the Project, meet CEQA's mandate, include a site plan or indicate the locations of roads, public services, and infrastructure improvements	3.0, *Project Description*

Table 1-1 Summary of NOP and Scoping Meeting Comments

Commentor	Date	Comment	Section in this EIR Where Comment(s) is Addressed
		• Concerns that inadequacy of provided parking spaces will impact circulation	4.12, *Transportation*
		• Concerns with the previous traffic study occurring during the Covid-19 pandemic	4.12, *Transportation*
		• Concerns with property values of homes in the surrounding area	
		• Concerns with the traffic carrying capacity of South Orange Avenue and South Flower Avenue	4.12, *Transportation*
		• Concerns with alternatives evaluation	6.0, *Alternatives*
Anastasia Tan	July 12, 2022	• Concerns regarding the drive-thru near the elementary school	3.0, *Project Description* 4.11, *Noise* 4.12, *Transportation*
		• Concerns with traffic and parking	4.12, *Transportation*
		• Concerns with the hours of the drive-thru and vandalism	3.0, *Project Description* 4.11, *Noise* 4.12, *Transportation*
Angela Sylcott	July 3, 2022	• Concerns with drive-thru next to school and increased traffic	3.0, *Project Description* 4.11, *Noise* 4.12, *Transportation*
Becky Czerwinski	July 14, 2022	• Concerns with drive-thru located next to school	3.0, *Project Description* 4.11, *Noise* 4.12, *Transportation*
Carolyn Campbell	July 20, 2022	• Concerned with the zone change to Mixed Use III	4.10, *Land Use and Planning*
		• Concerns with a drive-thru and traffic and safety concerns	3.0, *Project Description* 4.11, *Noise* 4.12, *Transportation*
Colby Gonzalez for Supporters Alliance for Environmental Responsibility (SAFER)	July 20, 2022	• Requests notification of all actions related to the Project	S.0, *Executive Summary* 1.0, *Introduction*
Destiny Conwi	July 20, 2022	• Concerns with traffic, the drive-thru, and the safety of the students due to increased traffic	3.0, *Project Description* 4.11, *Noise* 4.12, *Transportation*

Table 1-1 Summary of NOP and Scoping Meeting Comments

Commentor	Date	Comment	Section in this EIR Where Comment(s) is Addressed
Diane Stites	July 20, 2022	• Concerns with the drive-thru located next to school	3.0, *Project Description* 4.11, *Noise* 4.12, *Transportation*
		• Concerns with traffic and parking	4.12, *Transportation*
		• Concerns with how the City reviews documents and ensures an accurate analysis process	1.0, *Introduction*
		• Concerns with the general plan and zoning	4.10, *Land Use and Planning*
		• Requests a traffic circulation and queuing analysis	4.12, *Transportation*
		• Concerns with LOS F at Flower Avenue and Imperial Highway	4.12, *Transportation*
		• Concerns with porkchop island and widening driveways	4.12, *Transportation*
		• Requests that all pertinent intersections be studied, including the Brea Boulevard and Imperial Highway intersection	4.12, *Transportation*
		• Requests the correct speed limits on South Orange Avenue and South Flower Avenue be used in the documentation	4.12, *Transportation*
		• Concerns with ingress/egress on Imperial Highway	4.12, *Transportation*
		• Concerns with communication to the public and decision makers	S.0, *Executive Summary* 1.0, *Introduction* 3.0, *Project Description*
		• Concerns with drive-thru parking credit	4.12, *Transportation*
		• Concerns with reserved and shared parking slots	4.12, *Transportation*
		• Concerned with communication with Caltrans	S.0, *Executive Summary* 1.0, *Introduction* 4.12, *Transportation*
		• Concerns with accuracy of application and the use of the correct Laurel Elementary Magnet School of Innovation & Career Exploration name on the application	S.0, *Executive Summary* 1.0, *Introduction* 3.0, *Project Description*

Table 1-1 Summary of NOP and Scoping Meeting Comments

Commentor	Date	Comment	Section in this EIR Where Comment(s) is Addressed
Susan Eichinger	July 5, 2022	• Concerns with traffic and the drive-thru located next to school	4.11, *Noise* 4.12, *Transportation*
Gloria Chen	July 19, 2022	• Concerns with change of zoning, air quality, traffic congestion, noise, crime, and safety of students	4.1, *Air Quality* 4.10, *Land Use and Planning* 4.11, *Noise* 4.12, *Transportation* 5.0, *Other CEQA Consideration*
Jon Sinko	July 15, 2022	• Concerns with the drive-thru located next to school	4.11, *Noise* 4.12, *Transportation*
Kari Windes	July 20, 2022	• Concerns with change of zoning, traffic, air pollution, and pedestrian safety	4.1, *Air Quality* 4.10, *Land Use and Planning* 4.12, *Transportation*
Kate Romeyn	July 14, 2022	• Concerns with change of zoning, the drive-thru located next to school, and traffic	4.10, *Land Use and Planning* 4.11, *Noise* 4.12, *Transportation*
Mandy Burdett	July 19, 2022	• Concerns with drive-thru located next to school, traffic, and pedestrian safety	4.10, *Land Use and Planning* 4.11, *Noise* 4.12, *Transportation*
Margaret (Margie) and James McMillan	July 12, 2022	• Concerns with safety and change in general plan land use designation and zoning	4.10, *Land Use and Planning* 4.12, *Transportation*
Mary Martinez	July 19, 2022	• Concerns with traffic, ingress/egress of South Flower Avenue and South Orange Avenue, type and hours of business operations, change in land use and zoning	3.0, *Project Description* 4.10, *Land Use and Planning* 4.11, *Noise* 4.12, *Transportation*
Max Stites	July 20, 2022	• Concerns with pedestrian safety, traffic congestion, location of a drive-thru next to school	4.11, *Noise* 4.12, *Transportation*
		• Concerns with impact analysis and alternatives	4.12, *Transportation* 6.0, *Alternatives*
Michelle Fox	July 14, 2022	• Concerns with drive-thru located next to school and pedestrian safety	4.11, *Noise* 4.12, *Transportation*
Nicole Dunn-Higashi	July 14, 2022	• Concerns with drive-thru located next to school, safety, traffic, and change of land use and zoning	4.10, *Land Use and Planning* 4.11, *Noise* 4.12, *Transportation*

Table 1-1 Summary of NOP and Scoping Meeting Comments

Commentor	Date	Comment	Section in this EIR Where Comment(s) is Addressed
Dr. Richard M. Curtis	July 19, 2022	• Concerns with student safety, parking, parking lot lighting, surface and flow pattern, landscaping, signage, waste receptacle locations and odors, drive-thru queue	3.0, *Project Description* 4.8, *Hazards and Hazardous Materials* 4.12, *Transportation*
		• Requests that the City parking lot be open for parking and that the garage be demolished for more parking	3.0, *Project Description* 4.12, *Transportation*
Roderick Conwi	July 20, 2022	• Concerns with change of zoning	3.0, *Project Description* 4.10, *Land Use and Planning*
Tae Eung Kim	July 14, 2022	• Concerns with pedestrian safety and the location of a drive-thru next to school	3.0, *Project Description* 4.11, *Noise* 4.12, *Transportation*
Terese Andres	July 19, 2022	• Concerns with traffic, pedestrian safety, location of drive-thru next to school, and zoning	4.10, *Land Use and Planning* 4.11, *Noise* 4.12, *Transportation*
Terry Christensen	July 4, 2022	• Concerns with pedestrian safety	3.0, *Project Description* 4.12, *Transportation*
Terry Christensen	July 21, 2022	• Concerns with unknown tenant, traffic circulation	3.0, *Project Description* 4.12, *Transportation*

Upon consideration of the Project's description, its geographic location, and all comments received by the City in response to the NOP and during the EIR Scoping Meeting, this EIR provides a detailed analysis of the Project's potential to cause adverse effects under the following topics:

- 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
- Transportation
- Tribal Cultural Resources
- Utilities

The topics listed above are evaluated in EIR Section 4.0, *Environmental Analysis*.

During the course of conducting research of the Project's potential environmental effects and preparing this EIR, the City concluded that the Project would clearly result in either (1) no impacts or (2) less-than-significant impacts under several environmental topic areas, including: agriculture and forestry resources, mineral resources, population and housing, public services, recreation, and wildfire. Potential effects to these topic areas are summarized in EIR Section 5.0, *Other CEQA Considerations*.

1.6.2 EIR Format and Content

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

Table 1-2 Location of CEQA Required Topics

CEQA Required Topic	CEQA Guidelines Reference	Location in this EIR
Table of Contents	Section 15122	Table of Contents
Summary	Section 15123	Section S.0
Project Description	Section 15124	Section 3.0
Environmental Setting	Section 15125	Section 2.0
Consideration and Discussion of Environmental Impacts	Section 15126	Section 4.0
Significant Environmental Effects Which Cannot be Avoided if the Project is Implemented	Section 15126.2(c)	Section 4.0 & Subsection 5.1
Significant Irreversible Environmental Changes Which Would be Caused by the Project Should it be Implemented	Section 15126.2(d)	Subsection 5.2
Growth-Inducing Impact of the Project	Section 15126.2(e)	Subsection 5.3
Consideration and Discussion of Mitigation Measures Proposed to Minimize Significant Effects	Section 15126.4	Section 4.0 & Table S-1
Consideration and Discussion of Alternatives to the Project	Section 15126.6	Section 6.0
Effects Not Found to be Significant	Section 15128	Subsection 5.4
Organizations and Persons Consulted	Section 15129	Section 7.0 & Technical Appendices
Discussion of Cumulative Impacts	Section 15130	Section 4.0
Energy Conservation	Section 15126.2(b) & Appendix F	Subsection 4.5

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

- **Section S.0, Executive Summary**, provides an overview of the EIR and CEQA process and provides a brief description of the Project, including its objectives, the location and regional setting of the Project Site, and potential alternatives to the Project as required by CEQA. The Executive Summary provides a summary of the Project's impacts, mitigation measures, and conclusions, in a table that forms the basis of the Project's MMRP.

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

- **Section 2.0, Environmental Setting**, describes the environmental setting, including descriptions of the Project Site's physical conditions and surrounding context used as the baseline for analysis in this EIR.

- **Section 3.0, Project Description**, includes a detailed Project Description that identifies the precise location and boundaries of the Project, a map showing the Project's location in a regional perspective, a statement of the Project's objectives, a general description of the Project's technical, economic, and environmental characteristics, and a statement describing the intended uses of the EIR, including a list of agencies expected to use the EIR, and a list of approvals for which the EIR will be used. The Project Description contains a level of specificity commensurate with the level of detail proposed by the Project.

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

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

  The analyses in Section 4.0 are based in part upon technical reports that are appended to this EIR. Information also is drawn from other sources of analytical materials that directly or indirectly relate to the Project and are cited in Section 7.0, *References*.

  Where the analysis identifies a significant environmental effect, feasible mitigation measures are recommended. Pursuant to CEQA and the CEQA Guidelines, an EIR must propose and describe mitigation measures to minimize the significant environmental effects identified in the EIR. The requirement that EIRs identify mitigation measures realizes CEQA's policy that Lead Agencies adopt feasible measures when approving a project to reduce or avoid its significant environmental effects. Per Public Resources Code Section 21081.6 and CEQA Guidelines Section 15126.4, mitigation measures must be enforceable through conditions of approval, contracts or other means that are legally

binding. Pursuant to Public Resources Code Section 21081.6, incorporating mitigation measures into conditions of approval is sufficient to demonstrate that the measures are enforceable. This requirement is designed to ensure that mitigation measures will actually be implemented, not merely adopted and then ignored. In light of the foregoing, the identified mitigation measures are analyzed to determine whether they would effectively reduce or avoid any significant environmental effects. In most cases, implementation of the mitigation measures would reduce an identified significant environmental effect to below a level of significance. If mitigation measures are not available or feasible to reduce an identified impact to below a level of significance, the environmental effect is identified as a significant and unavoidable adverse impact, for which a Statement of Overriding Considerations would need to be adopted by the Lead Agency pursuant to CEQA Guidelines Section 15093.

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

- **Section 6.0, Project Alternatives**, describes and evaluates alternatives to the Project that could reduce or avoid the Project's adverse environmental effects. CEQA does not require an EIR to consider every conceivable alternative to the Project but rather to consider a reasonable range of alternatives, including a "No Project" alternative, that will foster informed decision making and public participation.

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

1.6.3 Incorporation by Reference

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

This EIR relies on a number of Project-specific technical appendices that are bound separately as *Technical Appendices*. The *Technical Appendices* are available for review at the City of Brea, Planning Division, 1 Civic

Center Circle, Brea, California 92821, during the City's regular business hours or can be requested in electronic form on the City's website at https://www.ci.brea.ca.us/1546/Environmental-Documents and https://www.ci.brea.ca.us/166/Projects-in-Process, or by contacting the City Planning Division. The individual technical studies, reports, and supporting documentation that comprise the *Technical Appendices* are as follows:

A: Notice of Preparation and Written Comments on the NOP
B: Air Quality Impact Analysis
C: Energy Analysis
D: Geotechnical Investigation
E: Greenhouse Gas Analysis
F1: Hydrology Report
F2: Preliminary Water Quality Management Plan
G: Noise Analysis
H1: Trip Generation Memo
H2: VMT Screening Analysis
I: Safety Study
J: Sewer Capacity Memorandum

Other reference sources that are incorporated into this EIR by reference are listed in Section 7.0, *References*, of this EIR. In most cases, documents or websites not included in the EIR's Technical Appendices are cited by a link to the online location where the document/website can be viewed. References relied upon by this EIR will be available for public review at the City of Brea, Planning Division, 1 Civic Center Circle, Brea, California 92821.

2.0 ENVIRONMENTAL SETTING

2.1 REGIONAL SETTING AND LOCATION

The approximately 1.88-acre Project Site is located in the southwestern portion of the City of Brea, which is located in the northern portion of Orange County, California. The City of Brea is located south of Los Angeles and San Bernardino Counties, and east of Riverside County. Surrounding cities include the City of Fullerton, the City of Placentia, and the City of Yorba Linda to the south, the City of Chino Hills to the east, and the City of La Habra to the west. To the north is unincorporated Orange County and Los Angeles County, and small areas of unincorporated Orange County also occur to the south and southwest. The Project Site is located approximately 6.1 miles northeast of Interstate 5 (I-5), 10.7 miles south of Interstate 10 (I-10), and 11.7 miles east of Interstate 605 (I-605). The location of the Project Site in a regional context is shown on Figure 3-1, *Regional Map*, in EIR Section 3.0, *Project Description*.

The Southern California Association of Governments (SCAG) estimates that Orange County had a population in 2020 of 3,268,000. SACG estimates that the County's population will increase to 3,535,000 by 2045 (SCAG, 2020b, Demographics and Growth Forecast Technical Appendix, p. 29).

2.2 LOCAL SETTING AND LOCATION

The Project Site is located at the northwest corner of the Imperial Highway (SR-90) and South Flower Street intersection. The Project Site includes Accessor Parcel Numbers (APNs) 319-292-31, -33, -35, and -36. Refer to Figure 3-2, *Vicinity Map*, and Figure 3-3, *USGS Topographic Map*, for locational information.

The area immediately surrounding the Project Site contains a variety of uses including commercial, residential, and public facilities uses. The Project Site is located adjacent to SR-90 and less than 0.1-mile southeast of South Brea Boulevard, both of which are designated truck routes.

2.3 SURROUNDING LAND USES

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

- North: To the north of the Project Site is a City parking lot and residential land uses. North of the parking lot is William's Senior Apartments. Further north is East Birch Street and north of East Birch Street are more residential land uses, Crosspointe Brea Church, and commercial uses including the Old Brea Chop House, Brea Improv, Copper Blues Rock Pub & Kitchen, and Yard House.

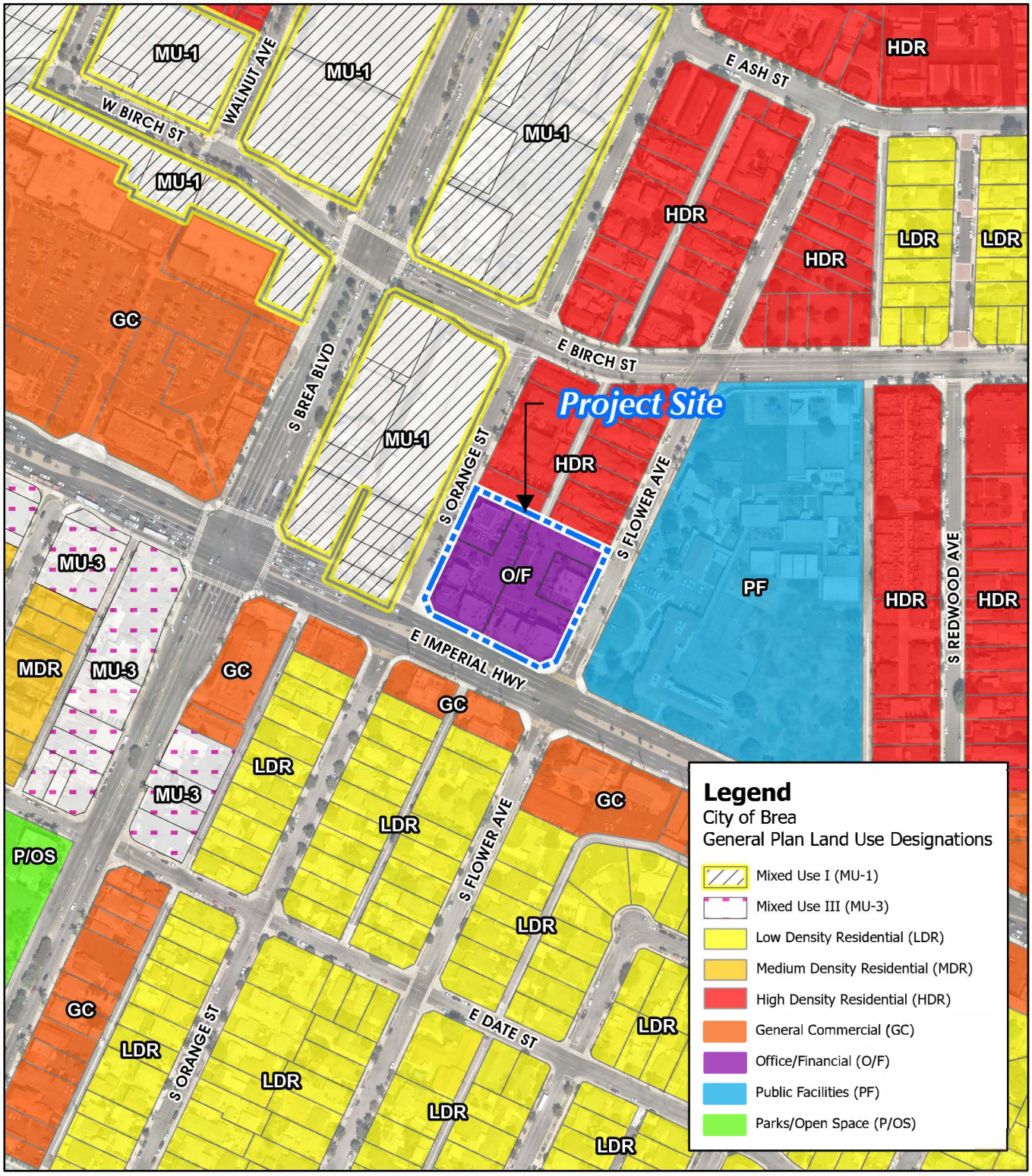
- East: South Flower Avenue is located to the east of the Project Site and on the east side of the roadway is Laurel Elementary School, within the Brea Olinda Unified School District. North of the elementary school is Lagos De Moreno Park. Residential land uses are located to the east of the elementary school.

Source(s): Esri, Nearmap Imagery (2022)

0 50 100 200 Feet

Figure 2-1

Surrounding Land Uses

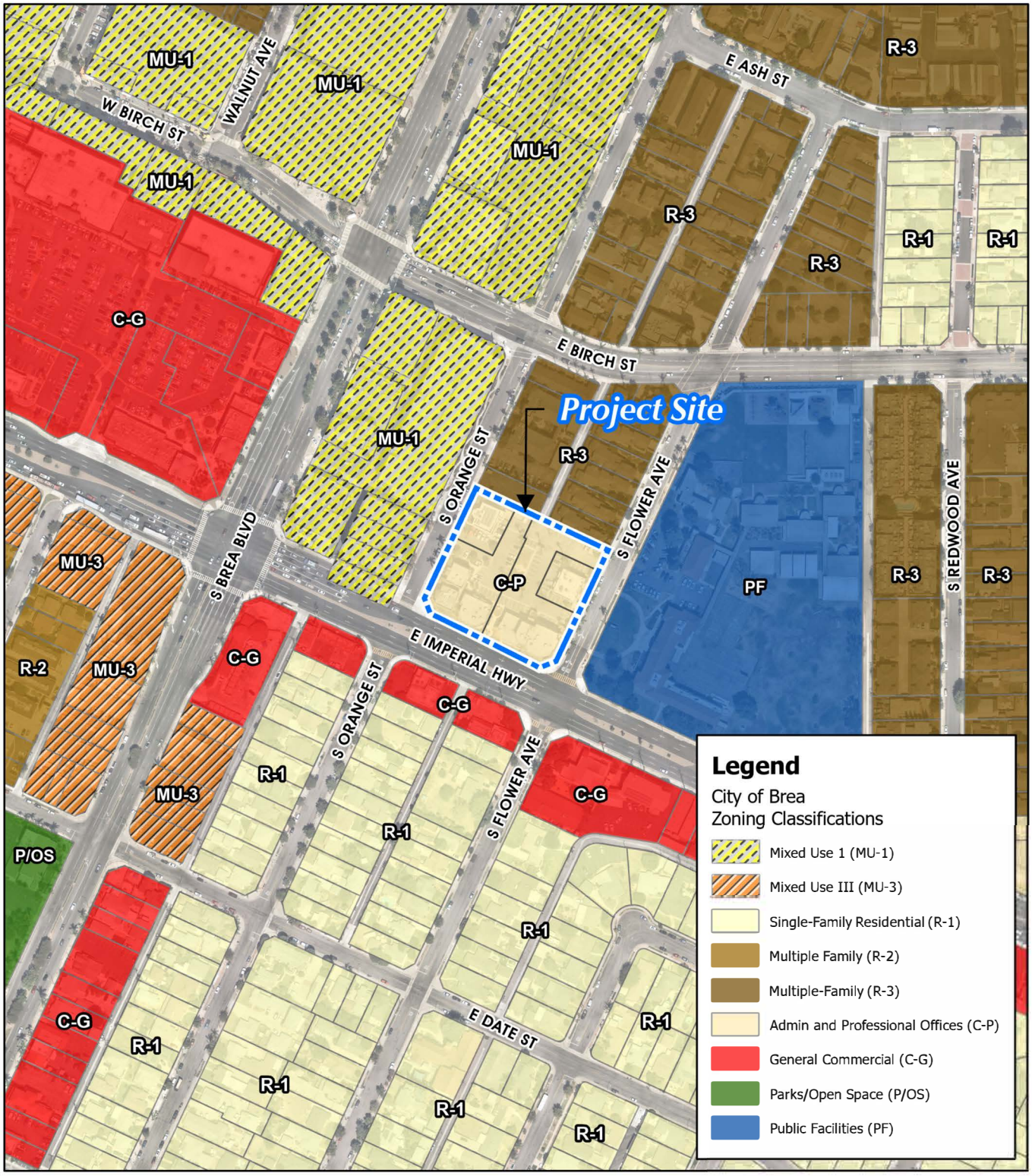


Source(s): Esri, Nearmap Imagery (2022), OC Landbase (2022)

Figure 2-2

0 75 150 300 Feet

Existing General Plan Land Use Designations



Source(s): Esri, Nearmap Imagery (2022), OC Landbase (2022)

Figure 2-3

0 75 150 300 Feet

Existing Zoning Designations

- South: Imperial Highway (SR-90) is located south of the Project Site. South of Imperial Highway are general commercial land uses, including Speedway Express, Mehta Dental Group, Garden Greeters, and Brea Congregational Church. Further south are residential land uses.

- West: West of the Project Site is South Orange Avenue and further west is a City parking garage and commercial development including AT&T, Taps Fish House and Brewery, Buffalo Wild Wings, Armed Forces Career Center, Olive Pit Grill, and Tower Bookstore.

2.4 COMMUNITY DEMOGRAPHICS AND POLLUTION BURDEN

The California Envioronmental Protection Agency (CalEPA) reports census tract demographic and socioeconomic data across the State of California and corolates that data with community health indicators. The census tract containing the Project Site (Census Tract 6059001504) is reported as being within the 94th percentile for pollution burden which, based on the census tract's demographic characteristics, results in the CalEPA's Office of Environmental Health Hazard Assessment (OEHHA) ranking the area in the 67th percentile of communities that are disproportionately burdened by multiple sources of pollution (OEHHA, 2022). OEHHA's California Communities Environmental Health Screening Tool: CalEnviroScreen 4.0, is a screening methodology used by the State to identify California communities that are disproportionately burdened by multiple sources of pollution. The CalEnviroScreen 4.0 indicators for the Project site's Census Tract are shown in Table 2-1 below.

Table 2-1 CalEnviroScreen Indicators for Census Tract 6059001504

Indicator	% Burden	Indicator	% Burden
Exposures		**Sensitive Populations**	
Ozone:	55	Asthma	33
PM 2.5:	83	Low Birth Weight	29
Diesel PM:	87	Cardiovascular Disease	55
Toxic Releases:	92	**Socioeconomic Factors**	
Traffic:	92	Education	53
Pesticides:	0	Linguistic Isolation	62
Drinking Water Contaminants:	78	Poverty	32
Lead from Housing:	62	Unemployment	66
Environmental Effects		Housing Burden	39
Cleanup Sites	65		
Groundwater Threats	11		
Hazardous Waste	95		
Impaired Waters	0		
Solid Waste	81		

(OEHHA, 2022).

Exposure indicators are based on measurements of different types of pollution that people may encounter. Environmental effects indicators are based on the locations of toxic chemicals in or near communities.

Sensitive population indicators measure the number of people in a community who may be more severely affected by pollution because of their age or health. Socioeconomic factor indicators are conditions that may increase people's stress or make healthy living difficult and cause them to be more sensitive to pollution's effects. As indicated in Table 2-1, for the Project Site's Census Tract 6059001504, the highest environmental exposure burdens (75% or more) are from fine particulate matter ($PM_{2.5}$), diesel particulate matter (DPM), toxic releases, traffic, and drinking water contaminates. The highest environmental effect burdens (75% or more) are from hazardous waste and solid waste. There are no sensitive population or socioeconomic factor indicators that are 75% or higher, indicating that the population in the Project Site's census tract is not heavily burdened by compromised health conditions or socioeconomic stresses.

The Project site is not located in a SB 535 Disadvantaged Community identified by CalEPA. The nearest SB 535 community is located west of the Project Site northwest of the Imperial Highway/N. Puente Street intersection. The State provides California Climate Investment funding appropriated by the State Legislature from the proceeds of the State's Cap-and-Trade Program for investment in disadvantaged communities. The funding is used for programs that reduce emissions of greenhouse gases with at least 25% of the funding going to projects that provide a benefit to disadvantaged communities and at least 10 percent of the funding going to projects located within those communities (CalEPA, 2022).

2.5 PLANNING CONTEXT

2.5.1 CITY OF BREA GENERAL PLAN

The City of Brea's prevailing planning document is its General Plan, initially dated August 19, 2003, with updates to the Public Safety Element in 2021 and updates to the Housing Element in 2022 (Brea, 2003a; Brea, 2021; Brea, 2022b). General Plan land use designations for the Project Site and surrounding properties are depicted on Figure 2-2, *Existing General Plan Land Use Designations*. The City's General Plan designates the Project Site as Office/Financial. The Office/Financial designation provides for single-tenant and multi-tenant offices that house professional, legal, medical, financial, administrative, research and development, corporate and general business offices, and other uses. The maximum floor area ratio (FAR) for this land use designation is 1.5 (Brea, 2003a, p. 2-15).

2.5.2 ZONING

Figure 2-3, *Existing Zoning Designations*, shows the City of Brea Zoning Map designation for the Project Site. The City's Zoning Map designates the Project Site as Administrative and Professional Office (C-P). The Administrative and Professional Office zoning classification is intended to provide for the development of administrative and professional offices and other related uses and facilities (Brea, 2022a, Chapter 20.224).

2.5.3 SCAG REGIONAL TRANSPORTATION PLAN / SUSTAINABLE COMMUNITIES STRATEGY

SCAG is a regional agency established pursuant to California Government Code Section 6500, also referred to as the Joint Powers Authority law. SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). The Project Site is within SCAG's regional authority. On September 3, 2020, SCAG's Regional Council approved and adopted

the *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy* ("*Connect SoCal*"). *Connect SoCal* is the applicable Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for the Project. The goals of *Connect SoCal* are to: 1) Encourage regional economic prosperity and global competitiveness; 2) Improve mobility, accessibility, reliability, and travel safety for people and goods; 3) Enhance the preservation, security, and resilience of the regional transportation system; 4) Increase person and goods movement and travel choices within the transportation system; 5) Reduce greenhouse gas emissions and improve air quality; 6) Support healthy and equitable communities; 7) Adapt to a changing climate and support an integrated regional development pattern and transportation network; 8) Leverage new transportation technologies and data-driven solutions that result in more efficient travel; 9) Encourage development of diverse housing types in areas that are supported by multiple transportation options; 10) Promote conservation of natural and agricultural lands and restoration of habitats. Performance measures and funding strategies also are included to ensure that the adopted goals are achieved through implementation of the RTP. (SCAG, 2020a)

2.6 EXISTING PHYSICAL SITE CONDITIONS

CEQA Guidelines Section 15125(a)(1), recommends that the physical environmental condition that existed at the time an EIR's NOP is released for public review normally be used as the comparative baseline for the EIR analysis. The NOP for this EIR was released for public review on June 27, 2022, and the following pages include a description of the Project Site's physical environmental condition ("existing conditions") as of that approximate date. More information regarding the Project's Sites' environmental setting is provided in the specific subsections of EIR Section 4.0, *Environmental Analysis*.

2.6.1 LAND USE

Pursuant to CEQA Guidelines Section 15125(d), the environmental setting should identify any inconsistencies between a proposed project and applicable general, specific, or regional plans. The principal discretionary actions required of the City of Brea to implement the Project are described in detail in Section 3.0, *Project Description*, and are listed in Table 3-3, *Project Related Approvals/Permits*. The Project entails a proposed amendment to the City's General Plan Land Use Map to change the land use designation for the 1.88-acre Project Site from "Office/Financial" to "Mixed Use III." Thus, the Project is inconsistent with the existing Brea General Plan Community Development Chapter.

The Project Site is currently fully developed with six commercial/office buildings. The building in the northeast corner of the Project Site is occupied by Brea Dentistry and the building in the northwest corner of the Project Site is occupied by Curtis Orthodontics. The two buildings located in the southeast and southcentral portion of the Project Site, along Imperial Highway, are vacant. The two buildings located in the western portion of the Project Site, along S. Orange Avenue, are Executive Suites occupied with various tenants. The Project Site includes surface parking, landscaping, lighting and signage. Access to the Project Site is provided via two driveways, one located along S. Orange Avenue and one located along S. Flower Avenue.

2.6.2 AESTHETICS AND TOPOGRAPHIC FEATURES

The Project Site slopes very gradually from northeast to southwest and is perceived to be flat. The Site's high point is approximately 368 feet above mean sea level (amsl) in the northeast corner and the Site's low point is

approximately 361 feet amsl in the southwest corner. Figure 3-3, *USGS Topographic Map*, in EIR Section 3.0, *Project Description*, depicts the Project Site's existing topographic conditions. The existing commercial/office uses contain a variety of ornamental landscaping, grass, and paved lots and pathways. There are no rock outcroppings or other unique topographic or aesthetics features present on the property under existing conditions.

2.6.3 Air Quality and Climate

The Project Site is located in the 6,745-square-mile South Coast Air Basin (SCAB), which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bound by the Pacific Ocean to the west, the San Gabriel, San Bernardino, the San Jacinto Mountains to the north and east, and San Diego County to the south. The SCAB is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD), the agency charged with bringing air quality in the SCAB into conformity with federal and State air quality standards. As documented in the Project's Air Quality Impact Analysis (*Technical Appendix B* to this EIR), although the climate of the SCAB is characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. More than 90% of the SCAB's rainfall occurs from November through April. Temperatures during the year range from an average minimum of 36°F in January to over 100°F in the summer. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Ana[s]" each year. (Urban Crossroads, 2023a, p. 5)

At the regional level, air quality in the SCAB has improved over the past several decades; however, the SCAB is currently not in attainment of State and/or federal standards established for Ozone (O_3; one-hour and eight-hour), particulate matter (PM_{10} [State standard only] and $PM_{2.5}$), and Lead (only in the Los Angeles County portion of the SCAB). No areas of the SCAB exceeded federal or State standards for nitrogen dioxide (NO_2), sulfur dioxide (SO_2), or carbon monoxide (CO). (Urban Crossroads, 2023a, p. 14)

Refer to EIR Subsections 4.3, *Air Quality*, and 4.8, *Greenhouse Gas Emissions*, for a more detailed discussion of the existing air quality and climate setting in the Project area.

2.6.4 Cultural Resources & Tribal Cultural Resources

Under existing conditions, the Project Site is fully developed with six commercial/office buildings. The buildings, developed in 1998, are surrounded by ornamental landscaping, and paved walkways, drive aisles and parking areas. Due to the less than 30-year-old age of the buildings, they are not considered to be historic resources. Two California Register of Historical Resources and one National Register of Historic Resources records were identified within a quarter-mile of the Project Site.

2.6.5 Geology

Regionally, the Project Site is located in the Peninsular Ranges geomorphic province, a prominent natural geomorphic province that extends from the Santa Monica Mountains approximately 900 miles south to the tip of Baja California, Mexico, and is bounded to the east by the Colorado Desert. The Peninsular Ranges province

is composed of plutonic and metamorphic rock, lesser amounts of Tertiary Volcanic and sedimentary rock, and Quaternary drainage in-fills and sedimentary veneers. Near the surface, the Project Site is underlain by Pleistocene older alluvium, lake, playa, and terrace deposits (CDC, 2022a).

The geologic structure of the entire southern California area is dominated mainly by northwest-trending faults associated with the San Andreas system. Similar to other properties throughout southern California, the Project Site is located within a seismically active region and is subject to ground shaking during seismic events; however, no known active or potentially active faults exist on or near the Project Site nor is the site situated within an "Alquist-Priolo" Earthquake Fault Zone. (CDC, 2022b)

The Project Site is underlain by artificial fill and alluvium, which consists of poorly graded sand, to a depth of 2.5 feet. At greater depths, the alluvium consists of interchanging layers of sand with variable amounts of clay with varying amounts of sand, the consistency of which is medium dense to dense (sand) and stiff to very stiff (clay), to a depth of 31.5 feet. (Terracon, 2022)

2.6.6 Hydrology

The Project Site is located in the Coyote Creek watershed, which drains an approximately 350-square-mile area into Coyote Creek and its tributaries. The Coyote Creek watershed extends from the flanks of the Diablo Mountain Range, at elevations of over 4,000 feet, to San Francisco Bay and encompasses all or parts of the cities of Anaheim, La Habra, Brea, Placentia, Fullerton, Buena Park, Cypress, La Palma, Los Alamitos, Stanton, and Seal Beach. The Project Site is within the purview of the Santa Ana Regional Water Quality Control Board (RWQCB). The Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Plan is the governing water quality plan for the region, which sets forth goals and objectives for protecting water quality within the region (RWQCB, 2019, p. 1.1).

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06059C0042J, the Project Site is located within FEMA Flood Zone X. Flood Zone X is correlated with areas of minimal flood hazard, determined to be less than the 0.2 percent annual chance flood (FEMA, 2009). Under existing conditions, the Project Site generally drains from northeast to southwest. Refer to EIR Subsection 4.9, *Hydrology and Water Quality*, for a more detailed discussion of the Project's Site existing hydrology and water quality setting.

2.6.7 Noise

To assess the existing noise level environment, 24-hour noise level measurements were collected at eight locations on and around the Project Site. The primary source of noise is transportation-related noise. The noise measurements are reported in decibels (dBA) as the equivalent or the energy average hourly sound levels (Leq). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Noise levels ranged from a high of 66.7 dBA (Leq)[2] during the daytime hours on the south side of Imperial Highway near Flower Avenue to a low of 49.1 dBA (Leq)[2] during nighttime hours at the Laurel Elementary School property. Noise levels also can be reported as Community Noise Equivalent Levels (CNEL) which averages noise levels throughout the day and applies a greater sensitivity to nighttime hours. CNEL levels on and around the Project Site range from at high of 70.3

CNEL on the south side of Imperial Highway near Flower Avenue to a low of 57.0 CNEL at Laurel Elementary School. (Urban Crossroads, 2023d, p. 22) Refer to EIR Subsection 4.11, *Noise*, for a more detailed discussion of the Project Site's existing noise setting.

2.6.8 Transportation

The primary regional travel routes serving the Project area are I-5, located approximately 6.1 miles southeast of the Project Site and I-605 located approximately 11.7 miles west of the Project Site. The Project Site abuts South Orange Avenue to the west, South Flower Avenue to the east, and Imperial Highway, a truck route, to the south. There is one driveway connection from the Project Site to South Orange Avenue and one driveway connection from the Project Site to South Flower Avenue. There are no driveway connections from the Project Site to Imperial Highway. Imperial Highway is a heavily traveled road and becomes congested at peak hours. Laurel Elementary School pick up and drop off uses driveways connecting with South Flower Avenue across from the Project Site.

There are no exiting bicycle facilities along the roadways that abut the Project Site. The only existing bike lanes in immediate vicinity are along Brea Boulevard, north of Birch Street. Brea Boulevard is currently striped with Class II (on-street, striped) bike lanes. Based on the City's Active Transportation Plan (ATP), Birch Street and Brea Boulevard, south of Birch Street, are proposed to have bikeway improvements in the future. Sidewalks for pedestrians are located along South Orange Avenue, South Flower Avenue, and Imperial Highway (Google Earth, 2022). During normal drop-off and pick-up hours for Laurel Elementary School there are school crossing guards positioned at the intersections of Brea Boulevard/Imperial Highway and Birch Street/South Flower Avenue. There are also crosswalks at South Orange Avenue/Imperial Highway, South Flower Avenue/Imperial Highway, and Birch Street/South Orange Avenue.

Public transit service in the region is provided by Orange County Transportation Authority (OCTA), a public transit agency that serves every city in Orange County. There is an existing bus route, Route 143, located along Brea Boulevard, northwest of the Project Site. The closet bus stop along this route on Brea Boulevard is located approximately 0.1-mile northwest of the Project Site at the intersection of Brea Boulevard and Imperial Highway. (OCTA, 2022)

Refer to EIR Subsection 4.12, *Transportation*, for a more detailed discussion of the Project Site's existing transportation setting.

2.6.9 Utilities and Service Systems

The City of Brea provides water service to the Project area, obtained from its regional wholesaler Municipal Water District of Orange County (MWDOC). Under existing conditions, water mains are installed beneath South Orange Avenue and South Flower Avenue. Wastewater treatment services for the Project area is provided by Orange County Sanitation District (OC San). The City does not own or operate wastewater treatment facilities but owns and operates the wastewater collection system in its service area that sends all wastewater to OC San for treatment and disposal. Wastewater is treated at OC San treatment plants in Fountain Valley (Plant No. 1) and Huntington Beach (Plant No. 2). Solid waste from the Project Site is expected to be disposed at the Olinda Alpha Landfill.

2.6.10 Vegetation Communities

The Project Site is entirely developed and does not support any natural vegetation. No sensitive species are anticipated to occur given the developed/disturbed condition of the Site. Vegetation on the Project Site is limited to landscaping of ornamental trees, shrubs, and grass.

Refer to EIR Subsection 4.3, *Biological Resources*, for a more detailed discussion of the Project Site's existing biological setting including a description of plant species and vegetation communities.

2.6.11 Wildlife

No sensitive animal species are anticipated to occur on the Project Site given its developed/disturbed nature.

Refer to EIR Subsection 4.3, *Biological Resources*, for a more detailed discussion of wildlife potential on and around the Project Site.

2.6.12 Rare and Unique Resources

As required by CEQA Guidelines Section 15125(c), the environmental setting should place special emphasis on resources that are rare or unique to that region and would be affected by the Project. Based on the existing conditions of the Project Site and surrounding areas described above and discussed in more detail in Section 4.0, *Environmental Analysis*, the Project Site does not contain any resources that are rare or unique to the region.

3.0 PROJECT DESCRIPTION

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

3.1 PROJECT LOCATION

The Project Site is located in the southwestern portion of the City of Brea. As shown in Figure 3-1, *Regional Map,* the City of Brea is located in the northern portion of Orange County, east of the City of La Habra, west of the City of Yorba Linda, and north of the City of Fullerton. At the local scale, the Project Site is located at the northwest corner of the Imperial Highway (SR-90) and South Flower Street intersection (see Figure 3-2, *Vicinity Map*, and Figure 3-3, *USGS Topographic Map*). The Project Site is located approximately 6.1 miles northeast of Interstate 5 (I-5), 10.7 miles south of Interstate 10 (I-10), and 11.7 miles east of Interstate 605 (I-605). The Project Site includes Accessor Parcel Numbers (APNs) 319-292-31, -33, -35, and -36. The Project Site is located within Section 14, Township 3 South, Range 10 West, San Bernardino Baseline and Meridian.

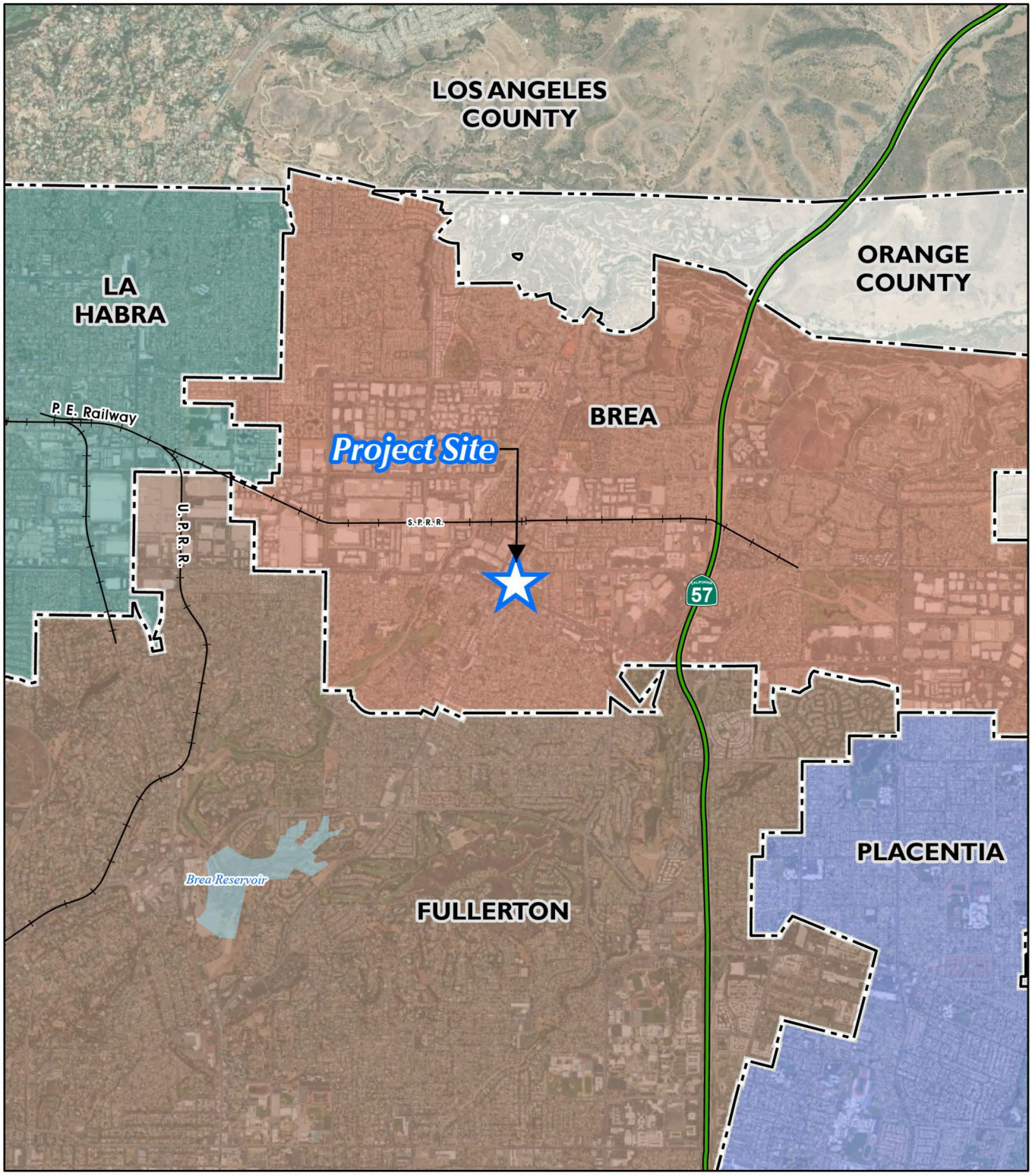
3.2 STATEMENT OF OBJECTIVES

The fundamental purpose and goal of the Project is to accomplish the orderly redevelopment of a portion of Gaslight Square with the development of two commercial buildings on approximately 0.95-acre of the 1.88-acre property. The Project would achieve this goal through the following objectives.

1. To expand economic development in the City of Brea by re-developing an underutilized property with in-demand commercial uses within a portion of the City that is planned for long-term commercial and mixed-use development.
2. Provide a mix of commercial uses that are easily accessible to local residents and passers-by on SR-90 to assist in meeting the growing and evolving shopping demands of local residents in the City of Brea.
3. Provide a gathering place for City residents and visitors that includes shopping and other retail services in an aesthetically appealing environment.
4. To develop a commercial center near the Downtown Brea area which allows for a broad range of retail, office, or service-oriented business activities.

3.3 PROJECT COMPONENTS

The Project involves the redevelopment of approximately 0.95-acre of a 1.88-acre parcel (herein, "Project Site"). The subject property is currently occupied with six commercial/office buildings. The southern 0.95-acre portion of the Project Site would be redeveloped with two proposed commercial buildings. As part of the Project, four of the existing commercial/office buildings would be demolished, including two 2,799 square

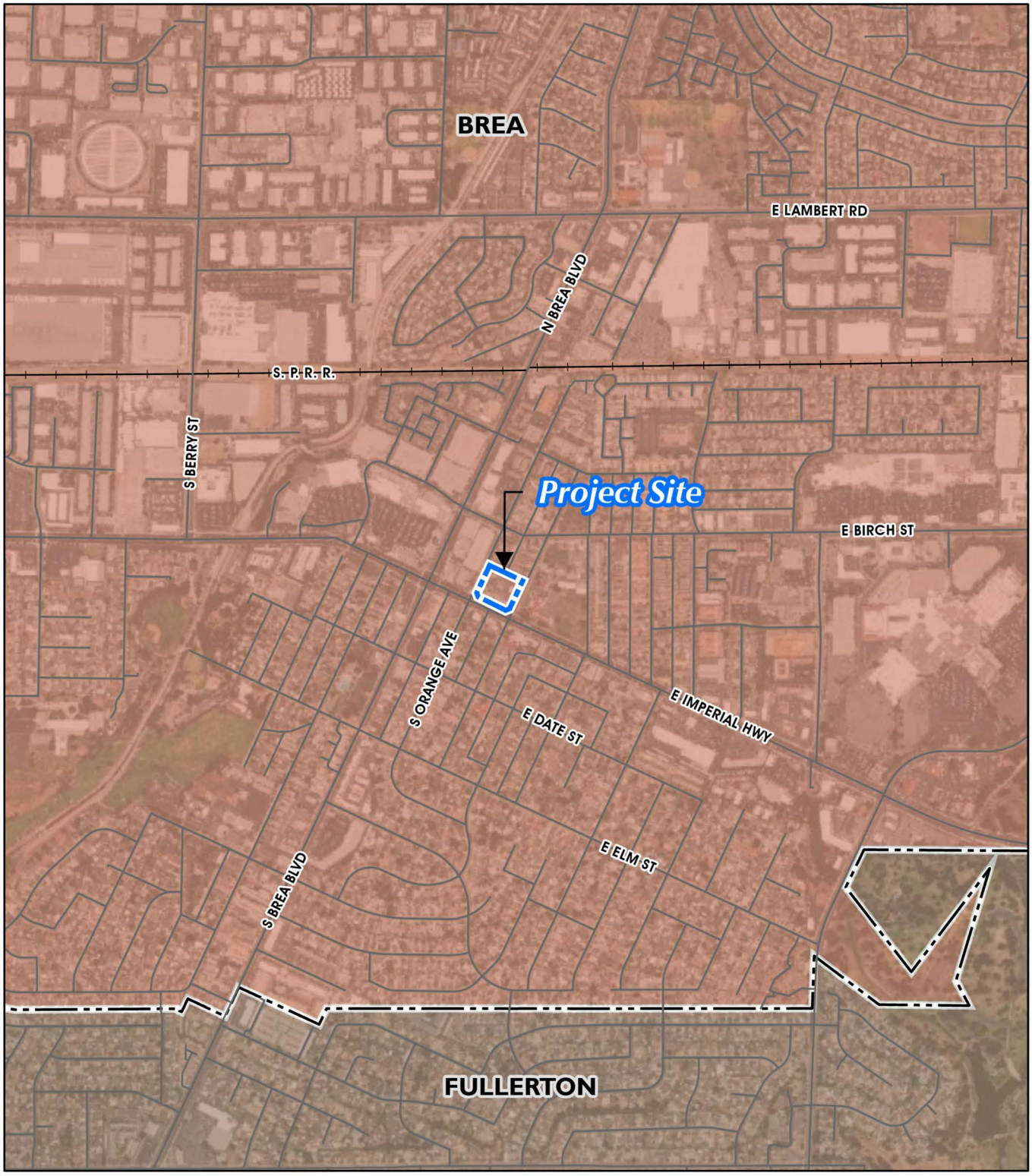


Source(s): Esri, Nearmap Imagery (2022),

0 1,000 2,000 4,000 Feet

Figure 3-1

Regional Map



Source(s): Esri, Nearmap Imagery (2022)

0 300 600 1,200 Feet

Figure 3-2

Vicinity Map

Source(s): Esri, Nearmap Imagery (2022)

0 125 250 500 Feet

Figure 3-3

USGS Topographic Map

foot (s.f.) office buildings, a 3,166 s.f. office building, and a two-story office/commercial building that contains 10,109 s.f. of floor space. Two new commercial buildings would be constructed on-site. A 6,000 s.f. commercial building is proposed at the northeast corner of South Orange Avenue and Imperial Highway, which would include a 2,400 s.f. sit-down restaurant and 3,600 s.f. of retail or medical office uses. In addition, an approximate 2,000 s.f. drive-through restaurant is proposed at the northwest corner of South Flower Avenue and Imperial Highway. Future tenants of the new, proposed buildings were unknown at the time this EIR was prepared. Discretionary approvals required to implement the proposed Project include a General Plan Amendment (GPA No. 2022-02), Zone Change (ZC No. 2022-02), Plan Review (PR No. 2022-03), and Conditional Use Permit (CUP No. 2022-03). The principal discretionary actions required of the City of Brea to implement the Project are described in detail on the following pages. Additional discretionary and administrative actions that would be necessary to implement the proposed Project are listed in Table 3-3, *Project-Related Approvals/Permits*, at the end of this Section.

3.3.2 General Plan Amendment No. 2022-02 (GPA No. 2022-02)

As shown on Figure 3-4, *Proposed GPA No. 2022-02*, GPA No. 2022-02 is proposed to amend the City's General Plan Land Use Map to change the land use designation for the Project Site from "Office/Financial" to "Mixed Use III." Pursuant to the City's General Plan, the Mixed-Use III land use designation generally provides opportunities for the revitalization of deteriorated commercial centers by allowing the development of neighborhood-serving commercial uses and very low intensity offices paired with housing, with a maximum floor-area-ration (FAR) of 1.0 (Brea, 2003a, p. 2-18).

3.3.3 Zone Change No. 2022-02 (ZC No. 2022-02)

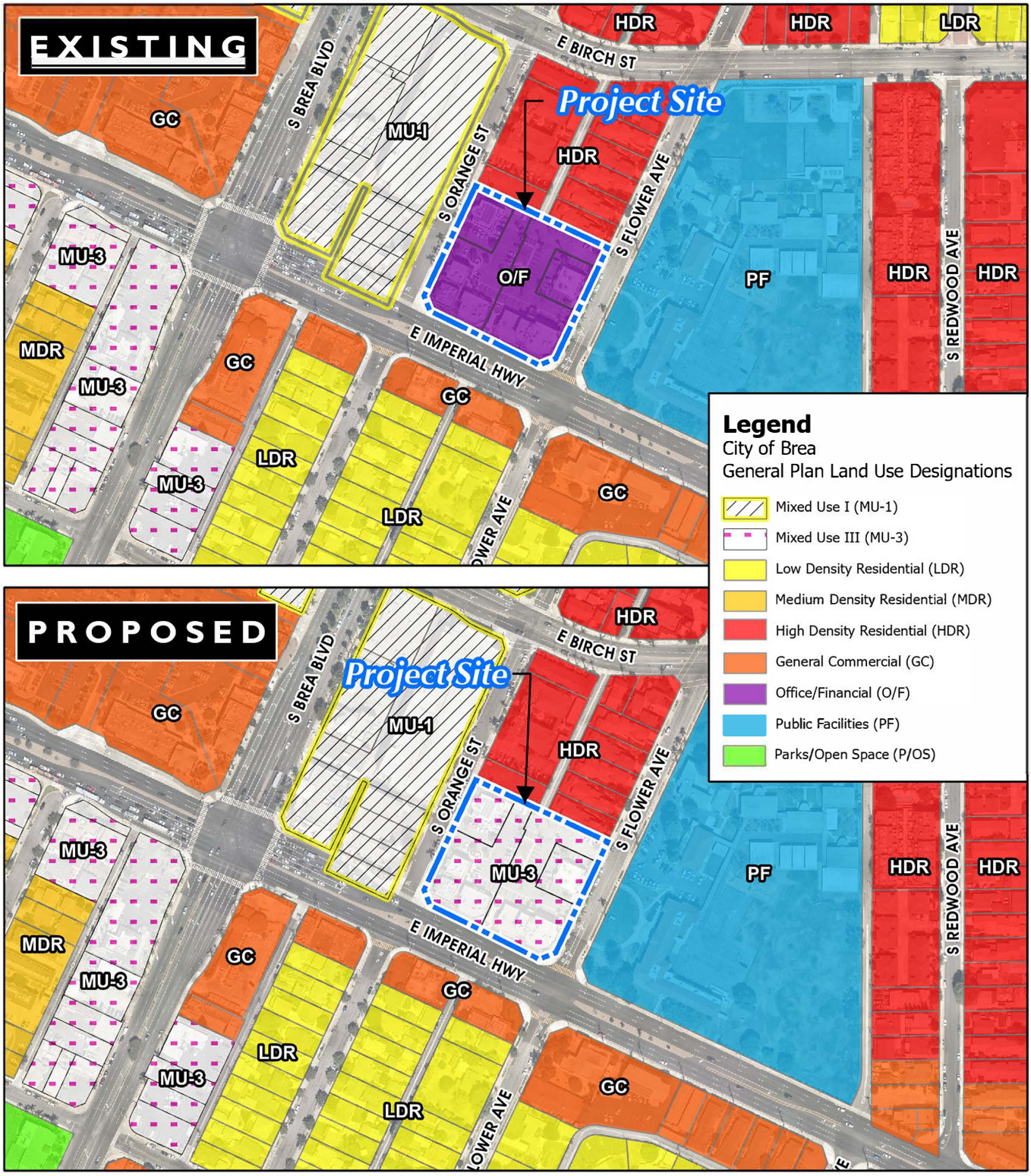
As shown on Figure 3-5, *Proposed ZC No. 2022-02*, ZC No. 2022-02 would amend the City's Zoning District Map to change the zoning classification of the Project Site from "Administrative and Professional Office (C-P)" with a "Precise Development (P-D)" overlay to "Mixed Use III." The "Mixed Use III" zoning classification is intended to provide opportunities for the revitalization of deteriorated commercial corridors and centers located on arterials by allowing the development of neighborhood-serving commercial uses and vary intensity offices paired with residential uses (Brea, 2022a, § 20.258.010).

3.3.4 Plan Review No. 2022-03 (PR No. 2022-03)

PR No. 2022-03 is required pursuant to § 20.258.010 to allow for the future construction of the two proposed commercial buildings and associated site improvements on the southern 0.95-acre portion of the Project Site. The application materials associated with PR No. 2022-03 include a conceptual layout for the proposed buildings and associated physical design features, conceptual architectural design for the buildings, and a conceptual landscaping plan. Detailed components of proposed PR No. 2022-03 are provided below.

A. Site Planning and Building Configuration

Figure 3-6, *Preliminary Site Plan*, depicts the overall site plan proposed by the Project Applicant. As shown, PR No. 2022-03 would allow for the development of the southern 0.95-acre portion of the Project Site with two commercial buildings with a total building area of approximately 8,000 s.f. A 6,000 s.f. commercial

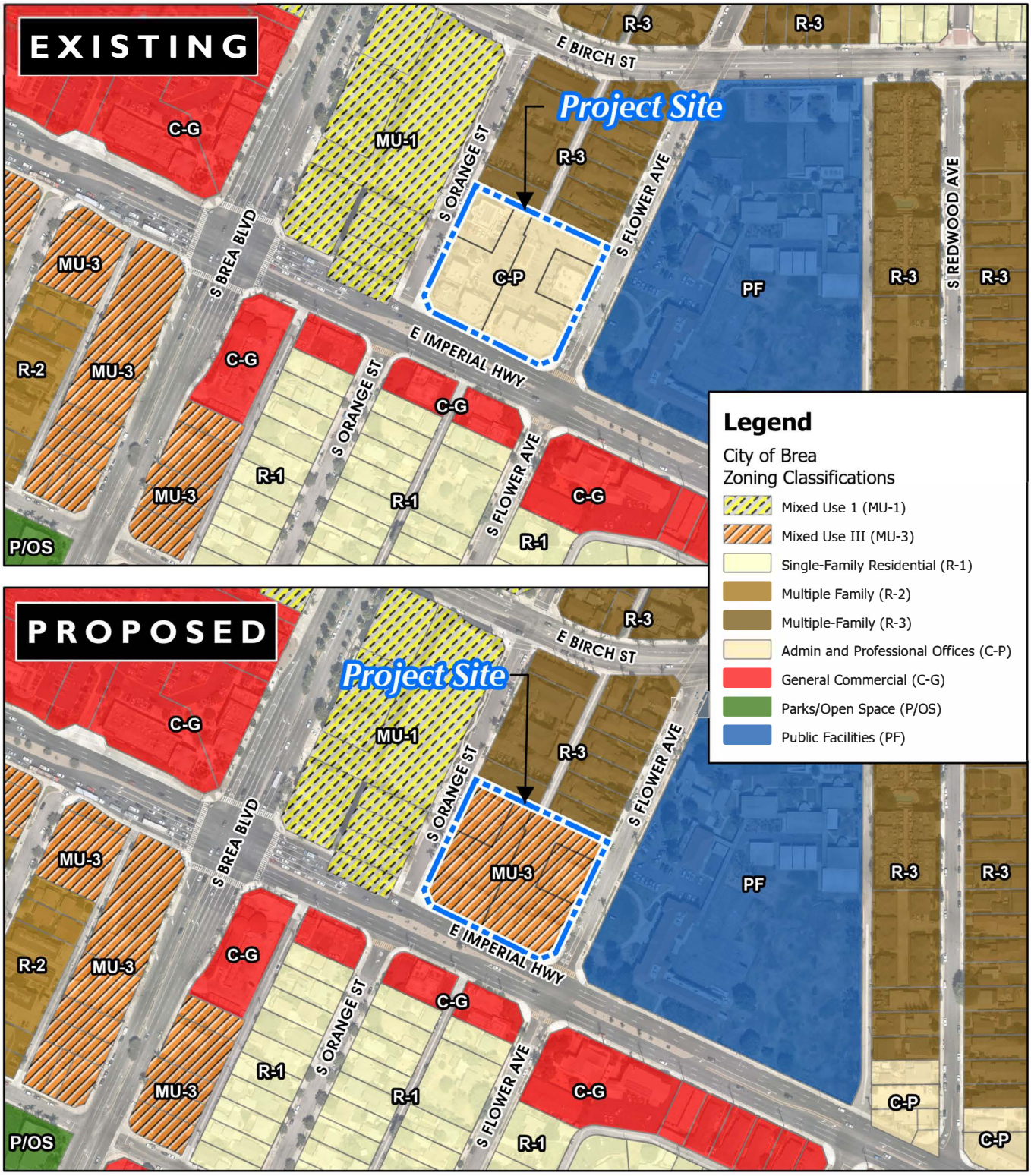


Source(s): Esri, Nearmap Imagery (2022), OC Landbase (2022)

Figure 3-4

0 75 150 300 Feet

Proposed GPA No. 2022-02

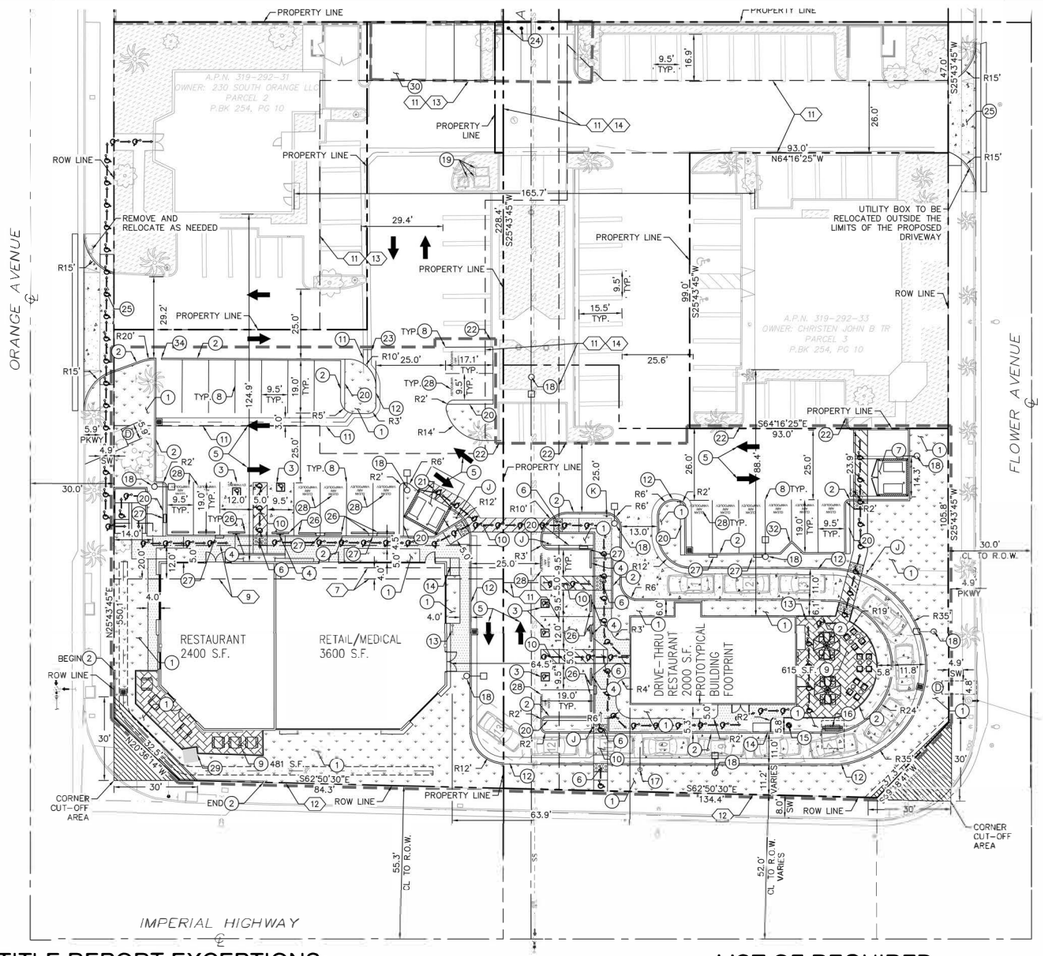


Source(s): Esri, Nearmap Imagery (2022), OC Landbase (2022)

Figure 3-5

0 25 50 100 Feet

Proposed ZC No. 2022-02



LEGEND:

- CENTER LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- EASEMENT LINE
- APPROXIMATE LIMIT OF WORK LINE
- LANDSCAPE/PLANTER AREA
- COLORED CONCRETE/ENHANCED PAVING
- EXISTING LANDSCAPE/PLANTER AREA
- STANDARD CONCRETE PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT
- CORNER CUT-OFF AREA
- ACCESSIBLE ROUTE (LOCATION PURPOSES ONLY, DO NOT PAINT)
- SIGN POST
- ACCESSIBLE PARKING SPACE

CONSTRUCTION NOTES:

1. LANDSCAPE/PLANTER AREA
2. CONCRETE CURB
3. ACCESSIBLE PARKING STALL STRIPING
4. ACCESSIBLE PARKING STALL SIGN
5. DIRECTIONAL MARKING PER PLAN
6. ACCESSIBLE RAMP WITH DETECTABLE WARNING (TRUNCATED DOMES)
7. COVERED CMU WALL TRASH ENCLOSURE AND RECYCLING BIN STORAGE
8. STANDARD 90° PARKING STALL STRIPING.
9. OUTDOOR COVERED PATIO TO BE STAINED STANDARD DUTY CONCRETE PAVEMENT
10. ACCESSIBLE PATH OF TRAVEL STRIPING.
11. PROPOSED 3' WIDE VALLEY GUTTER
12. CURB AND GUTTER
13. SHORT TERM BIKE RACK. HOURLY USE.
14. LONG TERM BIKE LOCKER. DAY USE (EMPLOYEES).
15. PREVIEW BOARD
16. ORDER BOARD
17. HEADACHE BAR
18. SITE LIGHTING
19. EXISTING TRANSFORMER AND ELECTRICAL APPURTENANCES TO REMAIN
20. 18" WALK-OFF CURB
21. PROPOSED TRASH ENCLOSURE.
22. EXISTING CURB TO REMAIN
23. EXISTING VALLEY GUTTER TO REMAIN
24. PROPOSED BOLLARDS.
25. EXISTING DRIVEWAY APPROACH TO BE DEMOLISHED AND RECONSTRUCTED PER CITY OF BREA STD. PLAN NO. 105-0.
26. WHEELSTOPS
27. E/V CHARGING STATION. CONDUIT TO BE RAN TO STALL.
28. "CLEAN AIR/VAN POOL/EV" IN 12" HIGH WHITE LETTERS AT THE END OF PARKING STALL
29. EXISTING SCULPTURE TO REMAIN. A PROTECTIVE FENCE, STRUCTURE, OR OTHER ACCEPTABLE METHOD SHALL BE REQUIRED DURING CONSTRUCTION FOR THE PROTECTION OF THE SCULPTURE. A COMPREHENSIVE MAINTENANCE PLAN SHALL BE RECORDED AS AN EXHIBIT TO THE PROPERTY'S CC&R'S, AS A CONDITION OF APPROVAL.
30. EXISTING GARAGE TO REMAIN.
31. EXISTING STREET LIGHT TO REMAIN
32. PROPOSED DIAMOND PLANTER.
33. PROPOSED COMPACT 90° PARKING.
34. PROPOSED CURB CUT

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN IS SITUATED IN CITY OF BREA IN THE COUNTY OF ORANGE, STATE OF CALIFORNIA, AND DESCRIBED AS FOLLOWS:

PARCEL A:
PARCELS 1 AND 4 OF PARCEL MAP NO. 88-324, IN THE CITY OF BREA, COUNTY OF ORANGE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 254, PAGES 10, 11 AND 12, OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, AS AMENDED BY CERTIFICATE OF CORRECTION RECORDED JULY 30, 1991 AS INSTRUMENT NO. 91-401275 OF OFFICIAL RECORDS.

EXCEPT THOSE PORTIONS OF PARCELS 1 AND 4 AS CONVEYED TO THE CITY OF BREA BY THE DEED RECORDED NOVEMBER 29, 1990 AS INSTRUMENT NO. 90-629407 OF OFFICIAL RECORDS.

ALSO EXCEPT ALL COAL, LIGNITE, COAL OIL, PETROLEUM, NAPTHA, ASPHALTUM, BREA, BITUMEN, NATURAL GAS AND OTHER HYDROCARBONS AND LIKE SUBSTANCES WHICH NOW EXIST UPON, IN OR UNDER SAID LOTS, BUT WITH NO RIGHT OF ENTRY UPON THE SURFACE OF SAID LOTS FOR THE TAKING AND DEVELOPING OF SAID SUBSTANCES, AS RESERVED AND EXCEPTED IN DEEDS OF RECORD.

PARCEL B:
A RECIPROCAL NON-EXCLUSIVE EASEMENT FOR PEDESTRIAN AND VEHICULAR TRAFFIC AND FOR THE PARKING OF AUTOMOBILES OVER AND ACROSS THOSE PORTIONS OF PARCELS 2 AND 3 OF SAID PARCEL MAP NO. 88-324 SHOWN AS PARKING AREAS ON EXHIBIT NO. 2 ATTACHED TO DOCUMENT ENTITLED "RECIPROCAL COVENANTS, CONDITIONS, RESTRICTIONS AND EASEMENT FOR PARKING" RECORDED JANUARY 17, 1991 AS INSTRUMENT NO. 91-24934 OF OFFICIAL RECORDS OF THE COUNTY OF ORANGE, AND AN AMENDMENT TO RECIPROCAL COVENANTS, CONDITIONS AND RESTRICTIONS AND EASEMENT FOR PARKING, RECORDED MARCH 5, 1991 AS INSTRUMENT NO. 91-099351, OF OFFICIAL RECORDS (BLANKET IN NATURE OVER ALL PARKING AREAS)

PARCEL C:
A RECIPROCAL NON-EXCLUSIVE PRIVATE DRAINAGE EASEMENT AS SHOWN ON SAID PARCEL MAP 88-324, OVER THOSE PORTIONS OF PARCELS 2 AND 3 DESIGNATED THEREON.

SITE DATA

PROJECT DESCRIPTION:	DEMOLITION OF EXISTING PARKING LOT AND BUILDING. NEW CONSTRUCTION OF ONE (1) DRIVE THRU RESTAURANT BUILDING, ONE (1) RESTAURANT AND RETAIL/MEDICAL USE BUILDING, AND ASSOCIATED PARKING AREA.
ADDRESS:	255 EAST IMPERIAL HIGHWAY, BREA, CA 92821
APN:	319-292-35 & 319-292-36
ZONING DISTRICT:	C-P(PD) (COMMERCIAL, ADMINISTRATIVE, AND PROFESSIONAL OFFICE) (EXISTING) MU-III - MIXED USED 3 (PROPOSED)
ADJACENT ZONING DISTRICTS:	N: R-3 - RESIDENTIAL NE: R-3 - RESIDENTIAL E: PF - PUBLIC FACILITIES S: C-O - GENERAL COMMERCIAL W: MU-I - MIXED USE I
EXISTING LAND USE: PROPOSED LAND USE:	COMMERCIAL COMMERCIAL
ADJACENT LAND USE:	E: FACILITIES S: COMMERCIAL W: COMMERCIAL N: RESIDENTIAL NW: CITY-OWNED PARKING LOT
BUILDING DEMO SQUARE FOOTAGE:	BUILDING 1: 2799 S.F. BUILDING 3: 3166 S.F. BUILDING 2: 2799 S.F. BUILDING 4: 10109 S.F.
TOTAL BUILDING DEMO SQUARE FOOTAGE:	18,873 S.F.
FLOOD ZONE:	ZONE X - AREAS DETERMINED TO BE OUTSIDE THE 0.02% ANNUAL CHANCE FLOODPLAIN.

TOTAL PARCEL AREA:	62,843 S.F.	(1.44 AC)	100%
TOTAL DISTURBED AREA:	41,576 S.F.	(0.95 AC)	66.1%
FLOOR AREA RATIO (FAR):	14,422 S.F.	(0.33 AC)	22.9%
TOTAL PAD AREA:	8,000 S.F.	(0.18 AC)	
TOTAL COMMERCIAL CENTER AREA:	82,083 S.F.	(1.88 AC)	

SITE COVERAGE

TOTAL DISTURBED AREA:	41,576 S.F.	(0.95 AC)	100%
BUILDING AREA:	8,000 S.F.	(0.18 AC)	19.2%
IMPERVIOUS AREA:	23,714 S.F.	(0.54 AC)	57.0%
LANDSCAPE AREA:	9,862 S.F.	(0.23 AC)	23.8%

PARKING SUMMARY:

DRIVE-THRU RESTAURANT, RESTAURANT, & RETAIL/MEDICAL: 2,615 S.F. (1 STALL/75 S.F.) + 2,925 S.F. (1 STALL/75 S.F.) + 3,500 S.F. (5.5 STALLS/1,000 S.F.) + 2,256 S.F. (5.5 STALLS/1,000 S.F.) + 2,718 S.F. (5.5 STALLS/1,000 S.F.) = 123 STALLS REQUIRED PER CITY CODE. 12 CARS REMOVED FOR DRIVE THRU CREDIT. 111 = PARKING REQUIRED

- ADA PARKING FOR 101-150 PARKING STALLS = 5 ADA PARKING STALLS REQUIRED, PER 2019 CBC.
- FUTURE EV FOR 101-150 PARKING STALLS = 13 FUTURE EV STALLS REQUIRED PER 2021 CALGREEN
- NUMBER OF REQUIRED DESIGNATED STALLS FOR LOW-EMITTING, FUEL-EFFICIENT, CARPOOL/VANPOOL, AND ELECTRIC VEHICLES (PER 2021 CALIFORNIA GREEN BUILDING STANDARDS) = 18.

TOTAL NUMBER OF PARKING SPACES PROVIDED = 104

DRIVE-THRU RESTAURANT, RESTAURANT, & RETAIL/MEDICAL

PARKING TABLE:	REQUIRED	PROVIDED
STANDARD	88	87
COMPACT (C)	–	–
MOTORCYCLE	–	–
DESIGNATED	18	18
EV CHARGING	13	13 (EV STALLS ARE ALSO DESIGNATED FOR VANPOOL)
ACCESSIBLE	5	6
TOTAL:	111	111**

*266' OF CAR STACK BEHIND THE PICK UP WINDOW HAS BEEN PROVIDED PER THE CITY'S CODE REQUIREMENTS.
**REFER TO THE PARKING EXHIBIT FOR A BREAKDOWN OF SHARED PARKING AVAILABLE.
- 12 CAR QUEUE PROVIDED FROM PICK-UP WINDOW TO DRIVE THRU ENTRANCE.
- 19 OFFSITE PARKING STALLS AVAILABLE AT 245 S ORANGE AVENUE, BREA, CA 92821 PARKING STRUCTURE.
-5 BIKE RACK CAPACITY PROVIDED FOR SHORT TERM.
-BICYCLE STORAGE LOCKER PROVIDED AT EACH BUILDING.

ZONING CONFORMANCE TABLE

	REQUIRED	PROPOSED
PARKING SPACES	111	111 92 STALLS 19 OFFSITE PARKING
LOT AREA	7,000 SF (0.16 AC) MIN.	1.44 AC
LOT DIMENSIONS	50 FT X 120 FT MIN.	300 FT X 275 FT
HEIGHT	30 FT	22.5 FT
SETBACKS	BUILDING/LANDSCAPE FRONT: 10'/8' REAR: 10'/0' SIDE (W): 0'/8' SIDE (E): 0'/8'	BUILDING/LANDSCAPE FRONT: 15'/8' REAR: 10'/0' SIDE (W): 15'/8' SIDE (E): 15'/8'

TITLE REPORT EXCEPTIONS

BASED UPON TITLE REPORT NO. 19000090277, DATED NOVEMBER 21, 2019 AS PREPARED BY STEWART TITLE COMPANY.

(7) AN EASEMENT FOR PUBLIC UTILITIES AND RIGHTS INCIDENTAL THERETO IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY RECORDED OCTOBER 8, 1985 AS INSTRUMENT NO. 85-385428 OF OFFICIAL RECORDS (PLOTTED HEREON). TO BE QUITCLAIMED.

(9) AN EASEMENT FOR PUBLIC UTILITIES AND RIGHTS INCIDENTAL THERETO IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY RECORDED AUGUST 9, 1988 AS INSTRUMENT NO. 88-390076; THE TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED "QUITCLAIM OF EASEMENT" RECORDED SEPTEMBER 20, 1988 AS INSTRUMENT NO. 88-476713 BOTH OFFICIAL RECORDS (PLOTTED HEREON). TO BE QUITCLAIMED.

(11) AN EASEMENT OR OTHER PROVISIONS FOR THE PURPOSE OF PRIVATE DRAINAGE, PUBLIC UTILITY, SEWER, ALLEY, EMERGENCY INGRESS AND EGRESS AND RIGHTS INCIDENTAL THERETO AS SHOWN ON THE RECORDED PARCEL MAP NO. 88-324 RECORDED JULY 27, 1990 IN BOOK 254, PAGES 10, 11 AND 12, OF PARCEL MAPS (PLOTTED HEREON).

(12) THE FACT THAT THE OWNERSHIP OF SAID LAND DOES NOT INCLUDE RIGHTS OF ACCESS TO OR FROM THE PUBLIC STREET OR HIGHWAY ABUTTING SAID LAND, SUCH RIGHTS HAVING BEEN RELINQUISHED OR SEVERED BY THE MAP OF SAID PARCEL MAP NO. 88-324, WHICH AFFECTS IMPERIAL HWY. (PLOTTED HEREON).

(13) PROVISIONS, HEREIN RECITED, OF THE DEDICATION STATEMENT ON THE MAP OF THE TRACT SHOWN ON PARCEL MAP NO. 88-324 PROVISIONS: AS FOLLOWS:
WE ALSO HEREBY RESERVE TO OURSELVES, OUR HEIRS, AND ASSIGNS: 1) A RECIPROCAL INGRESS, EGRESS EASEMENT FOR VEHICLES AND PEDESTRIANS BETWEEN PARCELS 1, 2, 3 & 4, 2) A RECIPROCAL PRIVATE DRAINAGE EASEMENT BETWEEN PARCELS 1, 2, 3 & 4 AND THE ALLEY (RECIPROCAL INGRESS/EGRESS EASEMENT BLANKET IN NATURE OVER PARCELS 1-4, RECIPROCAL PRIVATE DRAINAGE EASEMENT PLOTTED HEREON).

(14) AN EASEMENT FOR PUBLIC UTILITIES AND RIGHTS INCIDENTAL THERETO IN FAVOR OF PACIFIC BELL, ITS SUCCESSORS AND ASSIGNS AS SET FORTH IN A DOCUMENT RECORDED SEPTEMBER 4, 1990 AS INSTRUMENT 90-469325, AFFECTS AS DESCRIBED THEREIN (PLOTTED HEREON).

(15) THE TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED " RECIPROCAL COVENANTS, CONDITIONS AND RESTRICTIONS AND EASEMENT FOR PARKING" RECORDED JANUARY 17, 1991 AS INSTR. # 91-24934, OF OFFICIAL RECORDS.
SAID DOCUMENT WAS MODIFIED BY AN INSTRUMENT RECORDED MARCH 5, 1991 AS INSTRUMENT NO. 91-099351, OF OFFICIAL RECORDS (BLANKET IN NATURE OVER ALL PARKING AREAS WITHIN PARCEL 1, 2, 3, AND 4 OF PARCEL MAP NO. 88-324).

LIST OF REQUIRED ENTITLEMENTS

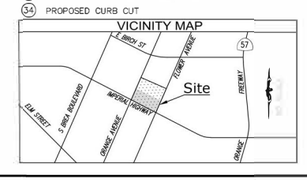
1. PLAN REVIEW NO. 2022-03 - FOR THE NEW CONSTRUCTION OF TWO BUILDINGS.
2. GENERAL PLAN AMENDMENT NO. 2022-02 (OFFICE/FINANCIAL COMMERCIAL (C-P (PD) TO MIXED USE III (MU-III).
3. ZONE CHANGE NO. 2022-02 (C-P(PD) TO MU-III).
4. CONDITIONAL USE PERMIT NO. 2022-03 - TO ALLOW THE DRIVE THROUGH RESTAURANT.

SIGN INFORMATION

(J) OMUTCD SIGN R1-5 - "YIELD TO PEDESTRIANS. DO NOT BLOCK PEDESTRIAN PATHWAY"

(K) OMUTCD SIGN R5-1 - "DO NOT ENTER", FOUND ON DRIVE-THRU EXIT ON PLAN.

VICINITY MAP



Source(s): Kimley-Horn (12-13-2022)

Not to Scale

Figure 3-6

Preliminary Site Plan

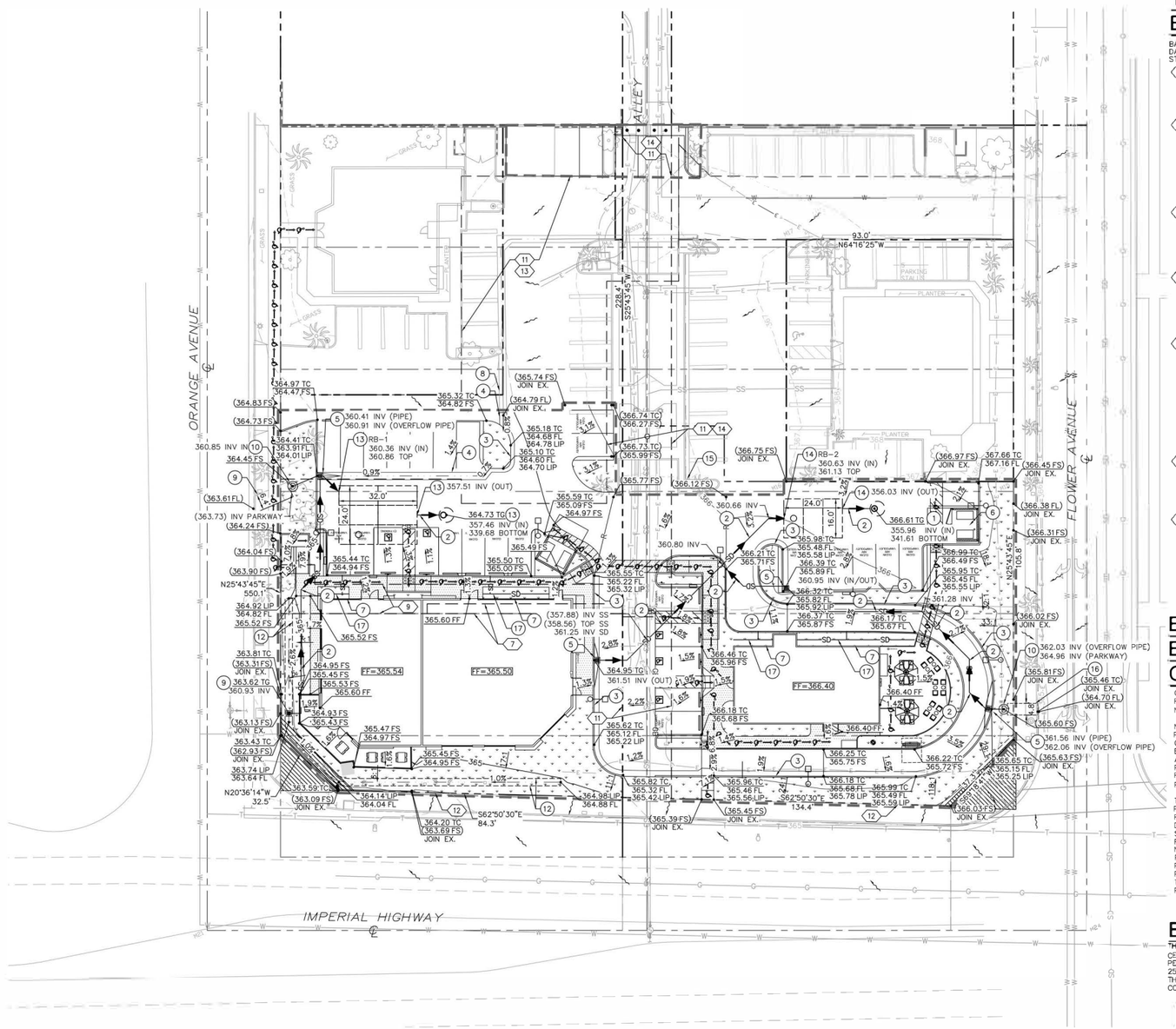
building is proposed in the southwestern portion of the Project Site and a 2,000 s.f. commercial building is proposed in the southeastern portion of the Project Site. Although the future occupants of the buildings are not known at the time, for purposes of analysis throughout this EIR it is assumed that the western 6,000 s.f. building would include approximately 2,400 s.f. of sit-down restaurant uses in the western portion of the building and 3,600 s.f. of retail or medical office uses in the eastern portion of the building, while the 2,000 s.f. commercial building in the southeast portion of the Project Site would consist of a drive-through restaurant use.

Vehicular access to the Project Site would be accommodated by two existing driveway entrances from South Orange Avenue and South Flower Avenue. An option of closing South Flower Avenue to end in a cul-de-sac at Imperial Highway is also being evaluated. This EIR will evaluate both options of leaving Flower Avenue open at Imperial Highway and closing South Flower Avenue to a cul-de-sac at Imperial Highway.

With redevelopment of the Project Site as proposed, the required parking spaces include 15 for the existing dentist office, 14 for the existing orthodontist office, 59 for the proposed restaurant and medical/retail building, and 35 for the proposed drive-thru restaurant. There is a 12-parking space queuing credit for the proposed drive-thru restaurant, leaving the total required parking for the Project to be 111 parking spaces. With implementation of the Project, a total of 92 parking spaces would be accommodated on the 1.88-acre parcel to serve the Project's existing and proposed commercial buildings. Although the Project would accommodate fewer than the 111 parking spaces required, § 20.08.040(B)(2)(a) of the City's Municipal Code provides that where a parking lot owned by the City is located within 400 feet of the front door of the main entry of the building, the parking requirements may be reduced (Brea, 2022a, § 20.08.040(B)(2)(a)). An existing City parking garage occurs immediately to the northwest of the Project Site along the west edge of South Orange Avenue, and is located less than 400 feet from the entrance to the proposed commercial buildings. As such, the Project would accommodate 92 parking spaces with the remaining 19 required spaces to be located off-site.

B. Grading and Site Work

To implement the Project, the existing features on the southern 0.95-acre portion of the property would be demolished and removed. Specifically, the four existing commercial buildings on the southern portion of the site, comprising approximately 18,873 s.f., would be demolished, along with all of the existing site improvements within the southern 0.95-acre portion of the Project Site. The two driveways to access the Project Site would be demolished and reconstructed per Brea City Code standards. In the northern portion of the Project Site, the Project proposes bollards to close off access from the alley. The two buildings on the northern portion of the Project Site would remain. The Project's conceptual grading plan is shown on Figure 3-7, *Preliminary Grading Plan*. As shown, grading proposed as part of the Project would generally maintain the site's existing topography. Proposed grading activities would require a total of 306 cubic yards (c.y.) of cut and 169 c.y. of fill, with a total net export of approximately 137 c.y. Proposed slopes on site would be minimal, and would be limited to the southwest corner of the Project Site. At the southwest corner of the Project Site, a proposed 3:1 (horizontal:vertical) slope is proposed, with a 4:1 slope proposed to the west of the western building and an 8:1 slope proposed to the south of the western building. No retaining walls are proposed or required as part of site grading.



TITLE REPORT EXCEPTIONS

BASED UPON TITLE REPORT NO. 19000090277, DATED NOVEMBER 21, 2019 AS PREPARED BY STEWART TITLE COMPANY.

(7) AN EASEMENT FOR PUBLIC UTILITIES AND RIGHTS INCIDENTAL THERETO IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY RECORDED OCTOBER 8, 1985 AS INSTRUMENT NO. 85-385428 OF OFFICIAL RECORDS (PLOTTED HEREON). TO BE QUITCLAIMED.

(9) AN EASEMENT FOR PUBLIC UTILITIES AND RIGHTS INCIDENTAL THERETO IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY RECORDED AUGUST 9, 1988 AS INSTRUMENT NO. 88-390076, THE TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED "QUITCLAIM OF EASEMENT" RECORDED SEPTEMBER 20, 1988 AS INSTRUMENT NO. 88-476713 BOTH OFFICIAL RECORDS (PLOTTED HEREON), TO BE QUITCLAIMED.

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(12) THE FACT THAT THE OWNERSHIP OF SAID LAND DOES NOT INCLUDE RIGHTS OF ACCESS TO OR FROM THE PUBLIC STREET OR HIGHWAY ABUTTING SAID LAND, SUCH RIGHTS HAVING BEEN RELINQUISHED OR SEVERED BY THE MAP OF SAID PARCEL MAP NO. 88-324, WHICH AFFECTS IMPERIAL HWY. (PLOTTED HEREON).

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ESTIMATED EARTHWORK QUANTITIES

CUT: 306 CY
FILL: 169 CY
NET: 137 CY (EXPORT)

NOTE: THE ABOVE QUANTITIES ARE APPROXIMATE IN PLACE VOLUMES CALCULATED FROM THE EXISTING GROUND TO THE PROPOSED FINISHED GRADE. EXISTING GROUND IS DEFINED BY THE CONTOURS AND SPOT GRADES ON THE BASE SURVEY. PROPOSED FINISHED GRADE IS DEFINED AS THE FINAL GRADE AS INDICATED ON THE GRADING PLAN(S).

THE EARTHWORK QUANTITIES ABOVE ARE FOR PERMIT PURPOSES ONLY. THEY HAVE NOT BEEN FACTORED TO ACCOUNT FOR CHANGES IN VOLUME DUE TO BULKING, CLEARING AND GRUBBING, SHRINKAGE, OVER- EXCAVATION AND RE-COMPACTION, AND CONSTRUCTION METHODS. NOR DO THEY ACCOUNT FOR THE THICKNESS OF PAVEMENT SECTIONS, FOOTINGS, SLABS, REUSE OF PULVERIZED MATERIALS THAT WILL UNDERLIE NEW PAVEMENTS, ETC. THE CONTRACTOR SHALL RELY ON THEIR OWN EARTHWORK ESTIMATES FOR BIDDING PURPOSES.

BASIS OF BEARINGS

THE BEARINGS SHOWN HEREON ARE BASED UPON THE CENTERLINE OF FLOWER AVENUE, BEING N25°43'45"E PER PARCEL MAP NO. 88-324, RECORDED IN BOOK 254 PAGES 10 THROUGH 12 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF ORANGE COUNTY.

LEGEND

- CENTER LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE / LEASE LINE
- EASEMENT LINE / SETBACK LINE
- APPROXIMATE LIMITS OF DISTURBANCE
- R — PROPOSED RIDGE LINE
- GB — PROPOSED GRADE BREAK LINE
- CORNER CUT-OFF AREA
- 366.00 TC / 366.50 FS — PROPOSED SPOT ELEVATION
- (366.75 TC) / (366.25 FS) — EXISTING SPOT ELEVATION
- PROPOSED FLOW LINE
- SD — PROPOSED STORM DRAIN LINE
- SD — EXISTING STORM DRAIN LINE
- EXISTING FLOW DIRECTION
- PROPOSED STORM DRAIN PIPE FLOW DIRECTION
- 365 — PROPOSED MAJOR CONTOUR
- 365 — PROPOSED MINOR CONTOUR
- 365 — EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR

GRADING AND DRAINAGE NOTES

1. PROPOSED UNDERGROUND DRY WELL AND SETTLING CHAMBER SYSTEM. REFER TO SHEET C3.1 FOR MORE INFORMATION.
2. 6" SDR-35 PVC STORM DRAIN PIPE SLOPED AT 0.5% MIN.
3. CONCRETE CURB AND GUTTER.
4. CONCRETE VALLEY GUTTER.
5. 24" X 24" JENSEN PRECAST DROP INLET WITH CATCH BASIN FILTER INSERT FOR TRASH CAPTURE. ALL CATCH BASINS SHALL HAVE "NO DUMPING--DRAINS TO OCEAN" PAINTED ON THE ADJACENT CURB. REFER TO SHEET C3.1 FOR MORE INFORMATION.
6. TRASH ENCLOSURE DRAIN WITH ACCESSIBLE GRATE. DRAIN TO SEWER. SEE SHEET C4.0 FOR MORE INFORMATION.
7. ROOF DOWNSPOUTS. CONNECT TO 4" SDR-35 PVC STORM DRAIN PIPE AND DRAIN THRU CURB FACE.
8. EXISTING VALLEY GUTTER TO REMAIN
9. EXISTING PARKWAY DRAIN TO BE WIDENED 1.0' TO 5.9'.
10. STORM DRAIN MANHOLE PER SPPWC STANDARD PLAN 321-2. PRESSURE RATED LID ON MANHOLE BOLTED DOWN. MANHOLE TO INCLUDE WEEPHOLES.
11. INSTALL 4" SDR-26 PVC STORM DRAIN PIPE AT 0.5% MIN.
12. VEGETATED SWALE
13. BIOCLEAN URBANPOND UNDERGROUND DETENTION VAULT (DB-1) WITH 2,183 CF CAPACITY FOR STORM WATER MANAGEMENT. MINIMUM VAULT DIMENSIONS 24.0'X32.0'X3.35'. REFER TO SHEET C3.2 FOR MORE INFORMATION.
14. BIOCLEAN URBANPOND UNDERGROUND DETENTION VAULT (DB-2) WITH 1,754 CF CAPACITY FOR STORM WATER MANAGEMENT. MINIMUM VAULT DIMENSIONS 24.0'X16.0'X5.10'. REFER TO SHEET C3.2 FOR MORE INFORMATION.
15. EXISTING CURB DRAINS TO REMAIN
16. INSTALL 57' X 4" PARKWAY DRAIN PER SPPWC STANDARD PLAN 151-2.
17. INSTALL DRAINAGE SLEEVE AGAINST BUILDING WALL PER DETAIL 1, SHEET C3.2.

BENCHMARK

ELEVATIONS SHOWN HEREON ARE BASED UPON COUNTY OF ORANGE BENCHMARK 2C-113-99, ELEVATION 368.96 FEET (NAVD 88).

DESCRIBED BY OCS 2003 – FOUND 3 ½" OCS ALUMINUM BENCHMARK DISK STAMPED "2C-113-99" SET IN THE TOP OF THE NORTHWEST CORNER OF A 4 FT. BY 8 FT. CONCRETE CATCH BASIN. MONUMENT IS LOCATED ON THE EASTERLY SIDE OF BREA BOULEVARD 0.1 MILES NORTHERLY OF THE INTERSECTION OF BREA BOULEVARD AND ASH STREET, 23 FT. NORTHERLY OF THE CENTERLINE OF THE RAILROAD TRACKS, 42 FT. SOUTHEASTERLY OF THE CENTERLINE OF BREA BOULEVARD. MONUMENT IS SET LEVEL WITH THE SIDEWALK.

SELF-CERTIFICATION FROM A STATE LICENSED PROFESSIONAL ENGINEER OR THIRD-PARTY CERTIFICATIONS ARE REQUIRED OF ALL BMPS CONSTRUCTED ON THIS PLAN OR FINAL CERTIFICATE OF OCCUPANCY WILL NOT BE GRANTED FROM THE CITY.

Source(s): Kimley-Horn (12-13-2022)

Not to Scale

Figure 3-7

Preliminary Grading Plan

C. Architectural Design

Proposed architectural elevations for the proposed buildings are illustrated on Figure 3-9, *Conceptual Architectural Elevations (Western Building)*, and Figure 3-10, *Conceptual Architectural Elevations (Eastern Building)*, for the western and eastern buildings, respectively.

As shown on Figure 3-9, the western proposed building would have a variable roofline measuring up to 22.5 feet in height at the northwest corner of the building, with remaining portions of the building measuring between 19.0 to 20.5 feet in height. The western building would primarily be treated with wood lap siding, with the southwest corner of the building being treated with grey smooth siding atop which would be treated with white-colored brick. Windows along the building would consist of aluminum with clear anodized coating, with windows measuring from the ground up to a height of 10 feet. The area between the restaurant space and the retail or medical space along the southern and northern elevations of the building would include a "living wall" that would consist of landscaping mounted to the exterior wall.

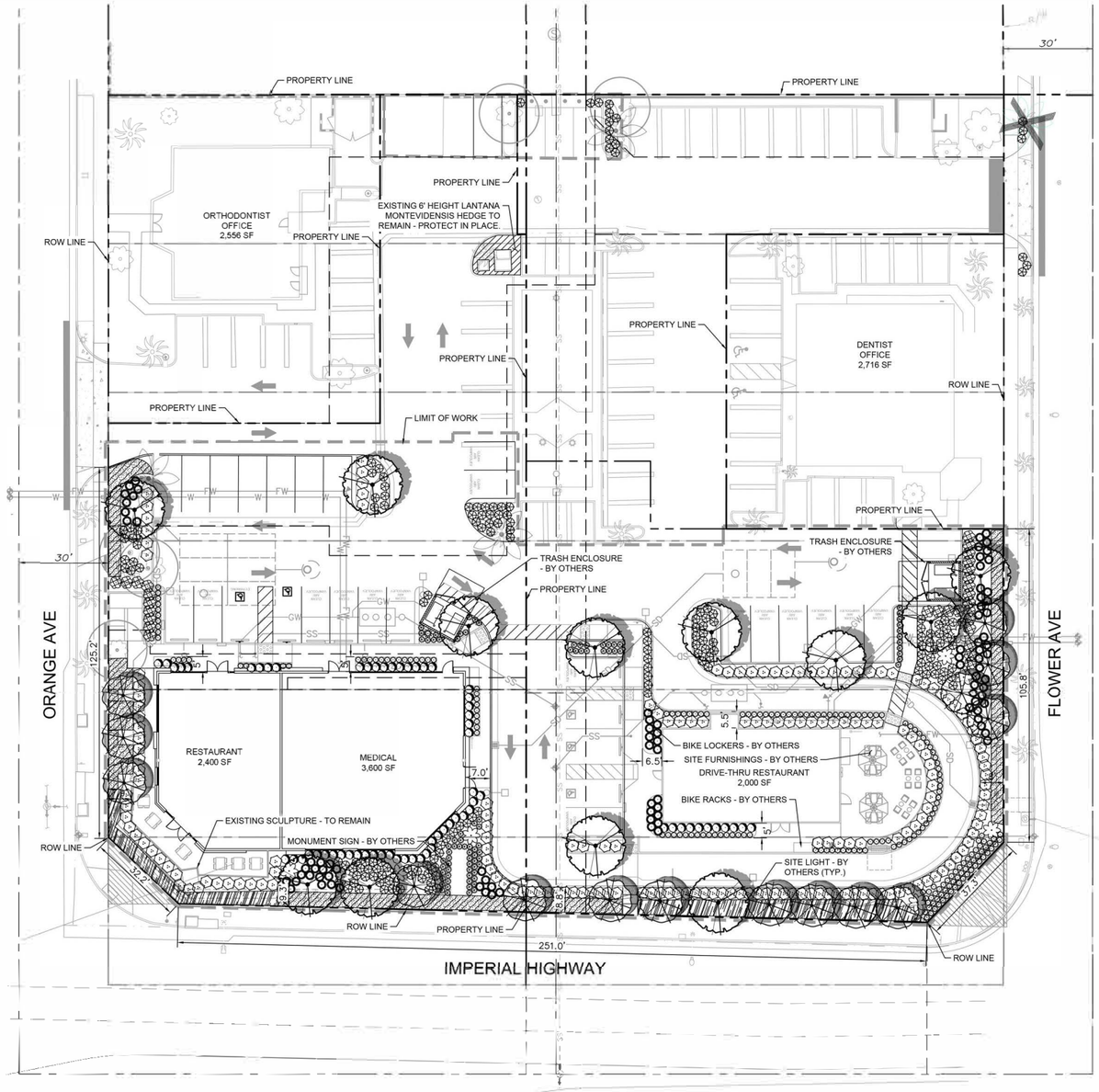
As shown on Figure 3-10, the eastern proposed building would measure up to approximately 18.8 feet in height for wall screening of rooftop equipment, while the main building would measure approximately 10.8 feet in height. A 10-foot-tall canopy also is proposed along the southern and eastern sides of the building. The building primarily would be treated with grey wood lap siding, with the western elevation consisting primarily of slate-colored concrete. Windows along the building would consist of aluminum with clear anodized coating, with windows measuring from the ground up to a height of just below 10 feet.

D. Conceptual Landscape Plan

Figure 3-8, *Preliminary Landscape Plan*, illustrates the conceptual landscape plan for the Project. As part of site demolition activities, most of the existing vegetation within the southern 0.95-acre portion of the Project Site would be removed, including several trees to the north of the existing buildings and shrubs and landscaping around the perimeter of the Project Site. Several existing trees near the western boundary of the Project Site would remain in place. As shown on Figure 3-8, the eastern, southern, and western portions of the Project Site would include 36-inch box golden rain trees (*Koelreuteria paniculate*) and 24-inch box Catawba crape myrtle trees (*Lagerstroemia indica 'Catawba'*). Several additional 36-inch box golden rain trees also are proposed within the on-site parking area. Landscaping along the eastern, southern, and western boundaries of the site, as well as areas surrounding the proposed buildings, also would include a variety of ornamental shrubs and groundcover.

E. Utility Improvements

The Project Site already is served by existing sanitary sewer, water, electricity, natural gas, and telephone connections, all of which traverse the Project Site in a north-to-south orientation and connect to existing facilities located within the Imperial Highway right-of-way. Aside from on-site connections to the proposed buildings, no improvements are required or proposed to the existing sanitary sewer, water, electricity, natural gas, and telephone facilities that exist on the Project Site under existing conditions, as all of these existing facilities are adequate to serve the proposed Project.



PLANT SCHEDULE

TREES	QTY	BOTANICAL / COMMON NAME	CONT	HEIGHT/SPREAD	CAL	WUCOLS
	1	EXISTING PALM / TO BE REMOVED	-	-	-	-
	3	EXISTING PALM / TO REMAIN PROTECT IN PLACE	-	-	-	-
	5	EXISTING TREE / TO REMAIN PROTECT IN PLACE	-	-	-	-
	12	KOELREUTERIA PANICULATA / GOLDEN RAIN TREE	36" BOX			LOW
	15	LAGERSTROEMIA INDICA 'CATAWBA' / CATAWBA CRAPE MYRTLE	24" BOX			LOW

SHRUBS	QTY	BOTANICAL / COMMON NAME	CONT	SPACING	WUCOLS
	1	AGAVE DESMETTIANA 'VARIEGATA' / VARIEGATED SMOOTH AGAVE	15 GAL	3' O.C.	LOW
	9	AGAVE WEBERI 'ARIZONA STAR' / ARIZONA STAR WEBER AGAVE	15 GAL	6' O.C.	LOW
	191	DIANELLA REVOLUTA 'LITTLE REV' / LITTLE REV FLAX LILY	5 GAL	2' O.C.	LOW
	91	LOMANDRA LONGIFOLIA 'BREEZE' TM / BREEZE MAT RUSH	5 GAL	3' O.C.	LOW
	158	MUHLENBERGIA CAPILLARIS / PINK MUHLY GRASS	5 GAL	3' O.C.	MODERATE
	66	NANDINA DOMESTICA 'LEMON LIME' / LEMON LIME HEAVENLY BAMBOO	5 GAL	3' O.C.	LOW
	29	OLEA EUROPAEA 'LITTLE OLLIE' TM / LITTLE OLLIE OLIVE	5 GAL	4' O.C.	LOW
	84	PENNISETUM ORIENTALE / ORIENTAL FOUNTAIN GRASS	5 GAL	2' O.C.	LOW
	182	RHAPHIOLEPIS UMBELLATA 'MINOR' / DWARF YEDDA HAWTHORN	5 GAL	4' O.C.	LOW

GROUND COVERS	QTY	BOTANICAL / COMMON NAME	CONT	SPACING	WUCOLS
	374	CAREX DIVULSA / EUROPEAN GREY SEDGE	1 GAL	2' O.C.	LOW
	135SF	EXISTING LANDSCAPE / TO REMAIN - PROTECT IN PLACE	-	-	-
	103	GREVILLEA LANIGERA 'PROSTRATE' / PROSTRATE WOOLY GREVILLEA	5 GAL	3' O.C.	LOW

LANDSCAPE NOTE:

THE SELECTION OF PLANT MATERIAL IS BASED ON CLIMATIC, AESTHETIC, AND MAINTENANCE CONSIDERATIONS. ALL PLANTING AREAS SHALL BE PREPARED WITH APPROPRIATE SOIL AMENDMENTS, FERTILIZERS AND APPROPRIATE SUPPLEMENTS BASED UPON A SOILS REPORT FROM AN AGRICULTURAL SUITABILITY SOIL SAMPLE TAKEN FROM THE SITE. DECOMPOSED GRANITE SHALL FILL IN BETWEEN SHRUBS TO SHIELD THE SOIL FROM THE SUN, EVAPOTRANSPIRATION, AND RUN-OFF. ALL SHRUB BEDS SHALL BE MULCHED TO A 3" DEPTH TO HELP CONSERVE WATER, LOWER SOIL TEMPERATURE, AND REDUCE WEED GROWTH. THE SHRUBS SHALL BE ALLOWED TO GROW IN THEIR NATURAL FORMS. ALL LANDSCAPE IMPROVEMENTS SHALL FOLLOW THE GUIDELINES SET FORTH BY THE CITY OF BREA MUNICIPAL CODE.

THE PROJECT WILL DISTURB 68.0% OF THE PROPERTY, A TOTAL OF 0.95-ACRES WITHIN A TOTAL OF 1.44-ACRES, CONSISTING OF 2 PARCELS OWNED BY ONE BERRY, LLC. AS A RESULT, 12 TREES WILL BE REMOVED AND REPLACED BY 26 PROPOSED STREET AND PARKING LOT TREES. THE PROJECT PROPOSED TO PROTECT 5 EXISTING TREES AND 3 EXISTING PALMS.

IRRIGATION NOTE:

AN AUTOMATIC IRRIGATION SYSTEM SHALL BE INSTALLED TO PROVIDE 100% COVERAGE FOR ALL PLANTING AREAS SHOWN ON THE PLAN. THE WATER SUPPLY FOR THIS SITE IS A POTABLE WATER CONNECTION AND A DEDICATED IRRIGATION METER WILL BE PROVIDED. LOW VOLUME EQUIPMENT SHALL PROVIDE SUFFICIENT WATER FOR PLANT GROWTH WITH NO WATER LOSS DUE TO WATER CONTROLLERS, AND OTHER NECESSARY IRRIGATION EQUIPMENT. ALL POINT SOURCE SYSTEM SHALL BE ADEQUATELY FILTERED AND REGULATED PER THE MANUFACTURER'S RECOMMENDED DESIGN PARAMETERS. ALL IRRIGATION IMPROVEMENTS SHALL FOLLOW THE GUIDELINES SET FORTH BY THE CITY OF BREA MUNICIPAL CODE.

I HAVE COMPLIED WITH THE CRITERIA OF THE ORDINANCE AB-1881 AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLAN.

MICHAEL P. MADSEN, LLA 5798

STREET TREE REQUIREMENTS

STREET FRONTAGE

1 TREE FOR EVERY 25 LF OF FRONTAGE REQUIRED

551 LF OF STREET FRONTAGE / 25 FEET PER TREE = 22 TREES

PROVIDED = 19 PROPOSED TREES, 3 EXISTING TREES

PARKING LOT TREES

PARKING LOT TREE REQUIREMENTS

1 TREE PROPOSED FOR EVERY 5 PARKING SPACES

28 PARKING SPACES / 5 PER TREE = 6 TREES

PROVIDED = 7 TREES

SITE DATA

SITE COVERAGE

NET AREA:	41,576 S.F.	(0.95 AC)	100%
BUILDING AREA:	8,000 S.F.	(0.18 AC)	19.2%
IMPERVIOUS AREA:	23,714 S.F.	(0.54 AC)	57.0%
LANDSCAPE AREA:	9,862 S.F.	(0.23 AC)	23.8%

PARKING/LANDSCAPE BUFFER

FRONT:	15.0' / 8.0'
REAR:	10.0' / 0'
SIDE (W):	15.0' / 0'
SIDE (E):	15.0' / 8.0'

Source(s): Kimley-Horn (12-13-2022)

Not to Scale

Figure 3-8

Preliminary Landscape Plan

North Elevation

0 2 4 8 16 32 FEET

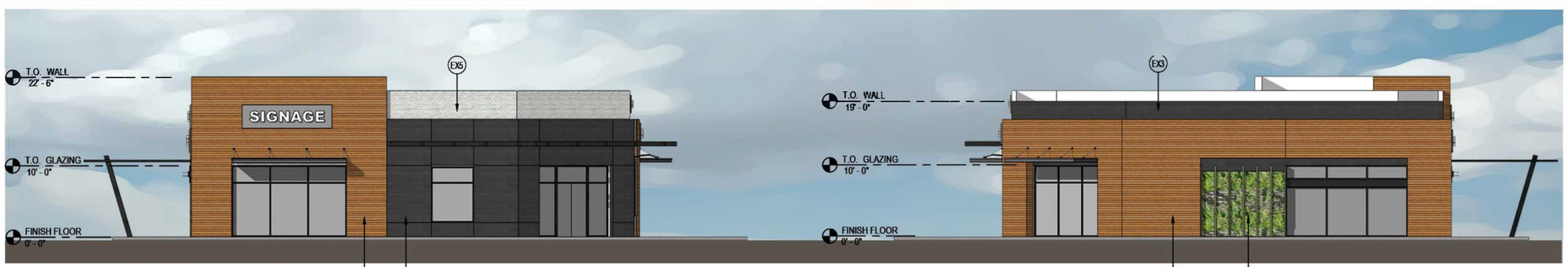
EXTERIOR MATERIAL SCHEDULE		
Material: Mark	Material: Manufacturer	Material: Description
EX1	ALLURA	WOOD LAP SIDING, SMOOTH COLOR: KNIGHT'S ARMOR
EX2	CERACLAD	CONCRETE SERIES: ASHLAR SLATE
EX3	CERACLAD	CONTEMPORARY SMOOTH, COLOR: SLATE
EX4	CERACLAD	WOOD SERIES, TEXTURE: BARNWOOD, COLOR: MAHOGANY
EX5	CERACLAD	BRICK SERIES, TEXTURE: ANTIQUE BRICK, COLOR: ANTIQUE WHITE
EX6	LIVEWALL	LIVING WALL AND LANDSCAPE SYSTEM MOUNTED TO EXTERIOR WALL.
EX7	STORE FRONT SYSTEM	ALUMINUM WITH CLEAR ANODIZED COATING

NOTE: COLOR ELEVATIONS

DUE TO LIMITATIONS OF THE PRINTING PROCESS, SURFACE TEXTURE OF MATERIALS, ETC., THE COLORS SHOWN ON THIS DRAWING WILL VARY. COLORS AND MATERIALS SHOWN ARE APPROXIMATE AND ARE TAKEN FROM SITE PHOTOS OF EXISTING CONDITIONS.

South Elevation (Imperial Hwy.)

Proposed Monument Sign
SCALE: 1/4"=1'-0"



West Elevation (South Orange Ave.)

East Elevation

Source(s): Lyons Warren Engineers + Architects (12-13-2022)

Not to Scale

Figure 3-9

Conceptual Architectural Elevations (Western Building)

North Elevation

East Elevation (South Flower Ave.)

South Elevation (Imperial Highway)

West Elevation

EXTERIOR MATERIAL SCHEDULE		
Material: Mark	Material: Manufacturer	Material: Description
EX1	ALLURA	WOOD LAP SIDING, SMOOTH COLOR: KNIGHT'S ARMOR
EX2	CERACLAD	CONCRETE SERIES: ASHLAR SLATE
EX3	CERACLAD	CONTEMPORARY SMOOTH, COLOR: SLATE
EX4	CERACLAD	WOOD SERIES, TEXTURE: BARNWOOD, COLOR: MAHOGANY
EX5	CERACLAD	BRICK SERIES, TEXTURE: ANTIQUE BRICK, COLOR: ANTIQUE WHITE
EX6	LIVEWALL	LIVING WALL AND LANDSCAPE SYSTEM MOUNTED TO EXTERIOR WALL
EX7	STORE FRONT SYSTEM	ALUMINUM WITH CLEAR ANODIZED COATING

0' 2' 4' 8' 16' 32 FEET

NOTE: COLOR ELEVATIONS

DUE TO LIMITATIONS OF THE PRINTING PROCESS, SURFACE TEXTURE OF MATERIALS, ETC., THE COLORS SHOWN ON THIS DRAWING WILL VARY. COLORS AND MATERIALS SHOWN ARE APPROXIMATE AND ARE TAKEN FROM SITE PHOTOS OF EXISTING CONDITIONS.

Source(s): Lyons Warren Engineers + Architects (12-13-2022)

Figure 3-10

Not to Scale

Conceptual Architectural Elevations (Eastern Building)

F. Drainage Improvements

The Project's proposed drainage plan generally would convey runoff from the Project Site in a manner similar to existing conditions. In the existing condition, storm water runoff from the building and parking lot area drains via surface flow southerly from the north-eastern and southeastern corners of the Project Site and is captured by a sidewalk parkway drain on the south-western portion of the site where it enters the public storm drain system. The Project Site also conveys run-on from areas located to the north of the Project Site. As proposed as part of the Project, roof drains would discharge from each of the buildings at the surface and the Project Site would drain southerly similar to existing conditions. A series of valley gutters and curb and gutters are proposed to collect and convey water to two (2) storm water Best Management Practices (BMPs) facilities that would be constructed within each of the two Drainage Management Area (DMAs). The BMPs would consist of two proprietary underground dry well systems to infiltrate the Design Capture Volume (DCV), an underground storage vault to attenuate peak flows for the site, and full trash capture catch basin filter inserts at each of the drop inlets. Storm water would overflow the catch basin along the westerly side of the site and be conveyed via the existing on-site sidewalk parkway to the southwest, ultimately discharging into the public storm drain system. Storm water also would overflow the catch basin at the southeast corner of the Project Site and be conveyed via a parkway drain east to the existing curb and gutter along South Flower Avenue, ultimately discharging onto the public storm drain system. (Kimley Horn, 2022a, p. 1; Kimley Horn, 2022b, p. 17)

3.3.5 Conditional Use Permit No. 2022-03 (CUP No. 2022-03)

Within the Mixed Use III zone, drive-through restaurants require approval of a conditional use permit. Accordingly, Conditional Use Permit No. 2022-03 (CUP No. 2022-03) is proposed as required by § 20.258.010 of the City's Municipal Code to allow for the proposed drive-through restaurant use in the eastern portions of the Project Site. As described by § 20.408.030 (Conditional Use Permits) of the City's Municipal Code, conditional use permits are "for those land uses which require special consideration in a particular zone or in the city as a whole." As part of the City's review of proposed CUP No. 2022-03, the City will review the Project to evaluate the appropriateness of the proposed drive-through use with respect to adjacent uses. In approving CUP No. 2022-03, the City may impose certain safeguards to protect the health, safety, and general welfare as conditions of approval. (Brea, 2022a, §§ 20.258.010 and 20.408.030)

3.4 Technical Characteristics of the Project

3.4.1 Construction Characteristics

A. Site Demolition

As part of the Project, the southern 0.95-acre portion of the Project Site would be subject to demolition, which would remove the existing buildings, existing paved parking areas, and most of the existing landscaping on site. The existing buildings include a total of 18,873 s.f. of building area. Demolition is expected to generate approximately 1,080 tons of demolition waste. Pursuant to the California Green Building Standards Code, a minimum of 65% of debris generated during construction, including debris from demolition activities, is required to be diverted from area landfills. Thus, demolition activities associated with the Project would result in the generation of approximately 378 tons of solid waste requiring disposal at local area landfills.

B. Proposed Physical Disturbance

Grading and construction activities associated with the Project would require physical disturbances to the southern 0.95-acre portion of the Project Site. Off-site improvements include reconstruction of the two Project Site driveways located on South Orange Avenue and South Flower Avenue. As the Project Site already is served with utilities under existing conditions, which are adequately sized to serve the proposed buildings, no other off-site improvements or disturbances would be required in order to implement the proposed Project. One option that is being studied as part of the Project is to close South Flower Avenue at Imperial Highway which would require the construction of a cul-de-sac.

C. Construction Schedule

The Project Applicant anticipates that the Project's construction process will occur over a 7-month timeframe. Demolition would occur first, followed by site preparation, mass-grading, and installation of underground infrastructure. Next, fine grading would occur, surface materials would be poured, and the proposed buildings would be erected, connected to the underground utility system, and painted. Lastly, landscaping, fencing, screen walls, lighting, signage, and other site improvements would be installed. The estimated Project construction schedule, organized by construction stage, is summarized in Table 3-1, Construction Schedule . For purposes of analysis, construction is expected to commence in January 2024 and would last through July 2024.

Table 3-1 Construction Schedule

Construction Activity	Start Date	End Date	Days
Demolition/Crushing (if any)	January 2024	January 2024	20
Site Preparation	February 2024	February 2024	20
Grading	March 2024	March 2024	20
Building Construction	April 2024	May 2024	30
Paving	June 2024	June 2024	30
Architectural Coating	July 2024	July 2024	30

D. Construction Equipment

The construction equipment fleet that is estimated to be used for Project construction is summarized in Table 3-2, *Construction Equipment Fleet*.

Construction workers would travel to the Site by passenger vehicle and materials deliveries would occur by medium- and heavy-duty trucks. Construction equipment is expected to operate on the Project Site up to eight hours per day, six days per week. As is typical to a construction site, construction equipment is not in continual use and some pieces of equipment are used only periodically throughout a typical day of construction. Thus, eight hours of daily use per piece of equipment is a reasonable assumption.

Table 3-2 Construction Equipment Fleet

Construction Activity	Equipment	Quantity	Hours Per Day
Demolition/Crushing	Concrete/Industrial Saws	1	8
	Rubber Tired Dozers	1	8
	Tractors/Loaders/Backhoes	2	8
Site Preparation	Grader	1	8
	Crawler Tractors	1	8
Grading	Graders	1	8
	Rubber Tired Dozers	1	8
	Crawler Tractors	1	8
Building Construction	Cranes	1	8
	Forklifts	2	8
	Tractors/Loaders/Backhoes	2	8
Paving	Cement and Mortar Mixers	4	8
	Pavers	1	8
	Rollers	1	8
	Tractors/Loaders/Backhoes	1	8
Architectural Coating	Air Compressors	1	8

E. Public Roadway Improvements

South Flower Avenue, Imperial Highway (SR-90), and South Orange Avenue are the public streets abutting the Project Site to the east, south, and west, respectively. The existing sidewalks and curbs would remain in place. The two driveways to access the Project Site would be demolished and reconstructed per Brea City Code standards. In the northern portion of the Project Site, bollards would be installed to close off access from the alley. An option of closing South Flower Avenue to end in a cul-de-sac at Imperial Highway is also being evaluated. This EIR will evaluate both options of leaving Flower Avenue open at Imperial Highway and closing South Flower Avenue to a cul-de-sac at Imperial Highway.

3.4.2 Operational Characteristics

At the time this EIR was prepared, the future user(s) of the proposed buildings were unknown. In accordance with CEQA, this EIR makes reasonable assumptions for operating characteristics based on the expected use of the proposed buildings. For the purposes of this EIR, the proposed western building is assumed to be occupied with 2,400 s.f. of sit-down restaurant uses in the western portion of the building and 3,600 s.f. of retail/medical uses in the eastern portion of the building. The eastern building would consist of 2,000 s.f. of drive-through restaurant uses. The restaurant and retail/medical uses within the western building are anticipated to operate during daytime and evening hours, seven days per week.

According to information published by the Southern California Association of Governments, retail/service uses generate an average of approximately 325 employees per acre. Accordingly, and including the existing parking areas in the northern portion of the Project Site that would serve the proposed buildings, the Project is conservatively expected to generate approximately 611 employees (1.88 acres x 325 employees/acre = 611 employees). (SCAG, 2001, Table II-B).

3.5 SUMMARY OF REQUESTED ACTIONS

The City has primary approval responsibility for the proposed Project. As such, the City serves as the Lead Agency for this EIR pursuant to CEQA Guidelines § 15050 and 15051. The role of the Lead Agency was previously detailed in EIR Section 1.0, *Introduction*. As part of the approval process for the proposed Project, the City's Planning Commission will hold a public hearing to consider the Project's General Plan Amendment (GPA 2022-02), Zone Change (ZC No. 2022-02), Plan Review (PR No. 2022-03), and Conditional Use Permit (CUP No. 2022-03). The Planning Commission will make advisory recommendations to the City Council on whether to approve, approve with changes, or deny GPA 2022-02, ZC No. 2022-02, PR No. 2022-03, and CUP No. 2022-03, and whether to certify this EIR. A public hearing will then be held before the City Council, which will consider the information contained in the Project's EIR and its citations and reference sources in its decision-making processes and will consider certification of this EIR, and also will approve, approve with changes, or deny approval of proposed GPA 2022-02, ZC No. 2022-02, PR No. 2022-03, and CUP No. 2022-03.

3.6 RELATED ENVIRONMENTAL REVIEW AND CONSULTATION

Should the City of Brea approve the Project and certify the Final EIR, additional discretionary and/or ministerial actions would be necessary to implement the proposed Project. Table 3-3, *Project-Related Approvals/Permits*, lists the agencies that are expected to use this EIR and provides a summary of the subsequent actions associated with the Project. This EIR covers all federal, State, and local government and quasi-governmental approvals which may be needed to construct and implement the Project, whether or not they are explicitly listed in Table 3-3 or elsewhere in this EIR (CEQA Guidelines § 15124(d)).

Table 3-3 Project-Related Approvals/Permits

Public Agency	Approvals and Decisions
Discretionary Approvals (Proposed Project)	
City of Brea Planning Commission	• Recommend approval, conditional approval, or denial of GPA 2022-02, ZC No. 2022-02, PR No. 2022-03, and CUP No. 2022-03.
City of Brea City Council	• Approve or deny approval of General Plan Amendment No. 2022-02 (GPA No. 2022-02). • Approve or deny approval of Zone Change No. 2022-02 (ZC No. 2022-02). • Approve, conditionally approve, or deny approval of Plan Review No. 2022-03 (PR No. 2022-03). • Approve, conditionally approve, or deny approval of Conditional Use Permit No. 2022-03 (CUP No. 2022-03). • Certify or reject the Project's EIR along with appropriate CEQA Findings.
Brea Olinda Unified School District	• Discussion, negotiation and/or consultation necessary should South Flower Avenue be closed to end in a cul-de-sac at Imperial Highway.
California Department of Transportation	• Encroachment permit and approvals should South Flower Avenue be closed to end in a cul-de-sac at Imperial Highway or should other improvements occur in the Imperial Highway right of way.
Subsequent City of Brea Discretionary and Ministerial Approvals	
City of Brea Subsequent Implementing Approvals	• Approve Temporary Use Permits, if required. • Issue Grading Permits. • Issue Building Permits. • Issue Certificate of Occupancy. • Issue Encroachment Permits, if necessary. • Approval of connections to the City's municipal sewer system. • Approval of connections to the City's water system. • Approval of proposed drainage infrastructure.
Other Agencies – Subsequent Approvals and Permits	
Santa Ana Regional Water Quality Control Board (RWQCB)	• Issuance of a Construction Activity General Construction Permit. • Compliance with National Pollutant Discharge Elimination System (NPDES) Permit.
Southern California Edison	• Approvals for electric utility connections and improvements.
SoCalGas	• Approval of natural gas connections.

4.0 ENVIRONMENTAL ANALYSIS

In accordance with CEQA Guidelines Sections 15126-15126.4, this EIR Section includes analyses of potential direct, indirect, and cumulatively-considerable impacts that could occur from planning, constructing, and/or operating the proposed Project.

The City of Brea distributed a NOP for this EIR to public agencies and interested individuals and posted the NOP on its website to solicit input on the scope of environmental study for the Project. The City of Brea also held an EIR Scoping Meeting to solicit input from the general public on the scope of environmental study for the Project. Taking all known information and public comments into consideration, 14 primary environmental subject areas are evaluated in detail in this Section 4.0, as listed below. Each Subsection in Section 4.0 evaluates several specific topics related to the primary environmental subject. The title of each subsection is not limiting; therefore, refer to each subsection for a full account of the subject matters addressed therein.

4.1 Aesthetics
4.2 Air Quality
4.3 Biological Resources
4.4 Cultural Resources
4.5 Energy
4.6 Geology and Soils
4.7 Greenhouse Gas Emissions
4.8 Hazards and Hazardous Materials
4.9 Hydrology and Water Quality
4.10 Land Use and Planning
4.11 Noise
4.12 Transportation
4.13 Tribal Cultural Resources
4.14 Utilities and Service Systems

After conducting preliminary research and in consideration of all comments received by the City on the scope of this EIR and documented in the City's administrative record, the City determined that the Project clearly has no potential to result in significant impacts to six environmental subjects: Agriculture and Forestry Resources; Mineral Resources; Population and Housing; Public Services; Recreation; and Wildfire. These six subjects are discussed in Section 5.0, *Other CEQA Considerations*.

4.0.2 SCOPE OF CUMULATIVE EFFECTS ANALYSIS

CEQA requires that an EIR contain an assessment of the cumulative impacts that may be associated with a project. As noted in CEQA Guidelines Section 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "A cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects creating related impacts" (CEQA Guidelines Section 15130(a)(1)). As defined in CEQA Guidelines Section 15355:

> *'Cumulative Impacts' refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.*
> *(a) The individual effects may be changes resulting from a single project or a number of separate projects.*

(b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

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

The summary of projections approach is used in this EIR, except for the evaluation of cumulative transportation effects (for purposes of demonstrating General Plan policy compliance) and vehicular-related air quality, greenhouse gas, and noise impacts, for which the analysis combines the summary of projections approach with the manual addition of past, present, and reasonably foreseeable projects ("combined approach") The City determined the combined approach to be appropriate because long-range planning documents contain a sufficient amount of information to enable an analysis of cumulative effect for all subject areas, with the exception of transportation (and vehicular-related air quality, greenhouse gas, and noise effects), which requires a greater level of detailed study. With the combined approach, the cumulative impact analyses for the air quality, greenhouse gas, noise, and transportation issue areas overstate the Project's potential cumulatively considerable impacts relative to analyses that rely solely on the list of projects approach or solely on the summary of projections approach; therefore, the combined approach provides a conservative, "worst-case" analysis for the Projects' cumulative air quality, greenhouse gas, noise, and transportation impacts.

The list of projects used to supplement the summary of projections approach includes known approved and pending development projects in proximity to the Project Site. These include three other past, present, and reasonably foreseeable projects described in Table 4.0-1, *Cumulative Development Land Use Summary*.

Table 4.0-1 Cumulative Development Land Use Summary

Project Name	Location	Project Type/Size
Mercury Apartments	580 Mercury Lane	114 Unit Apartment Building
Brea Mall	Imperial Highway at Randolph Avenue	Demolish 161,990 square feet of retail; Construct 380 Unit Apartments and 47,425 square feet of retail
Transwestern	285 N Berry Street	126,797 s.f. Industrial Building

For the cumulative impact analyses that rely on the summary projections approach (i.e., all issue areas with the exception of transportation and vehicular-related air quality, greenhouse gas, and noise – as described in the preceding pages), the cumulative study area primarily includes the City of Brea which is located in the northern portion of Orange County which has similar environmental characteristics as the Project area. The

selected study area encompasses a valley that is largely bounded by prominent topographic landforms, such as the Puente Hills to the north and the Chino Hills to the east.

This study area exhibits similar characteristics in terms of climate, geology, and hydrology and, therefore, is likely to also have similar biological, archaeological, and tribal cultural resource characteristics as well. This study area also encompasses the service areas of the Project Site's primary public service and utility providers. Areas outside of this study area either exhibit topographic, climatological, or other environmental circumstances that differ from those of the Project area, or are simply too far from the proposed Project Site to produce environmental effects that could be cumulatively-considerable when considered together with the Project's impacts. Exceptions include the cumulative air quality analysis, which considers the entire South Coast Air Basin (SCAB); the greenhouse gas emissions and global climate change analysis, which affects all areas on the planet; and the analysis of potential cumulative hydrology and water quality effects, which considers other development projects located within the Santa Ana River Basin watershed.

Environmental impacts associated with buildout of the Project's cumulative study area were evaluated in CEQA compliance documents prepared for the respective General Plans of each of the above-named jurisdictions. The location where each of these CEQA compliance documents is available for review is provided below. The CEQA compliance document listed below are herein incorporated by reference pursuant to CEQA Guidelines Section 15150.

- City of Brea General Plan EIR (SCH No. 2002061051), available for review at the City of Brea, Planning Division, 1 Civic Center Circle, Brea, California 92821.

4.0.2 Analysis Format

Subsections 4.1 through 4.14 of this EIR evaluate the 14 environmental subjects warranting detailed analysis as determined by the City in consideration of preliminary research findings, public comments, and technical study. The format of discussion is standardized as much as possible in each section for ease of review. The environmental setting of the Project individually is discussed first (which is based on specified thresholds of significance used as criteria to determine whether potential environmental effects are significant). A discussion of the cumulative impacts of the Project then follows.

The thresholds of significance used in this EIR are based on the thresholds of significance identified in Appendix G to the CEQA Guidelines, as most recently updated in December 2018. The thresholds are intended to assist the reader of this EIR in understanding how and why this EIR reaches a conclusion that an impact would or would not occur, is significant, or is less than significant.

Serving as the CEQA Lead Agency for this EIR, the City of Brea is responsible for determining whether an adverse environmental effect identified in this EIR should be classified as significant or less than significant. The standards of significance used in this EIR are based on the independent judgment of the City of Brea, taking into consideration the City of Brea General Plan, the Brea Municipal Code and adopted City policies, the judgment of the technical experts that prepared this EIR's Technical Appendices, performance standards

adopted, implemented, and monitored by regulatory agencies, and significance standards recommended by regulatory agencies.

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

4.1 AESTHETICS

This Subsection describes the aesthetic qualities and visual resources present on and within the vicinity of the Project Site, and evaluates the potential effects that the Project may have on these resources. Descriptions of existing visual characteristics, both on-site and in the vicinity of the Project Site, and the analysis of potential impacts to aesthetic resources are based on field observations and photographs collected by T&B Planning, Inc. in June 2022; analysis of aerial photography (Google Earth, 2022); and the Project application materials submitted to the City of Brea described in Section 3.0, *Project Description*, of this EIR. This Subsection also is based on information contained in the Aesthetics section of the certified Final EIR prepared for the City's General Plan (SCH No. 2002061051) (Brea, 2003b), and the City of Brea Municipal Code (Brea, 2022a). All references used in this Subsection are listed in EIR Section 7.0, *References*.

4.1.1 EXISTING CONDITIONS

A. Project Site and Surrounding Areas

The Project Site is located in the City of Brea, in the northern portion of Orange County, California. Pursuant to CEQA Guidelines Section 15125 and as explained in Section 2.0 of this EIR, the physical environmental condition for purposes of establishing the setting of this EIR is the environment as it existed at the time the EIR's NOP was released for public review. The NOP for this EIR was released on June 27, 2022. As of that approximate date, the Project Site was developed with six commercial/office buildings. Figure 4.1-1, *Project Site Photographs*, illustrates a representative photographic inventory of the Project Site and the immediately surrounding area and are relied upon herein to describe the aesthetic condition and character. These photographs provide a representative visual depiction of visual characteristics as seen from surrounding public viewing areas that offer views of the Project Site, which consist of public roads, Laurel Elementary School, Lagos De Moreno Park, and the City parking lot. The photographs were all taken during the same session and reflect a field of view approximately five (5) feet above the ground.

The Project Site is located at the northwest corner of the Imperial Highway (SR-90) and South Flower Street intersection. The area immediately surrounding the Project Site contains a variety of uses including commercial, residential, and public facilities uses. The Project Site slopes very gradually from northeast to southwest and is perceived to be flat. The Site's high point is approximately 368 feet above mean sea level (amsl) in the northeast corner and the Site's low point is approximately 361 feet amsl in the southwest corner. The existing commercial/office uses contain a variety of ornamental landscaping, grass, and paved lots and pathways. There are no rock outcroppings or other unique topographic or aesthetics features present on the property under existing conditions. Under existing conditions, the area surrounding the Project Site from which the Site is visible is as described below.

- North: To the north of the Project Site is a City parking lot and residential land uses. North of the parking lot is William's Senior Apartments. Further north is East Birch Street and north of East Birch Street is more residential land uses, Crosspointe Brea Church, and commercial uses including the Old Brea Chop House, Brea Improv, Copper Blues Rock Pub & Kitchen, and Yard House.

- East: South Flower Avenue is located to the east of the Project Site and further east is Laurel Elementary School. North of the elementary school is Lagos De Moreno Park. Residential land uses are located to the east of the elementary school.

- South: Imperial Highway is located south of the Project Site. South of Imperial Highway are general commercial land uses, including Speedway Express, Mehta Dental Group, Garden Greeters, and Brea Congregational Church. Further south are residential land uses.

- West: West of the Project Site is South Orange Avenue and further west is a City parking garage and commercial development including AT&T, Taps Fish House and Brewery, Buffalo Wild Wings, Armed Forces Career Center, Olive Pit Grill, and Tower Bookstore.

B. Scenic Vistas and Scenic Resources

The Puente and Chino Hills provide scenic qualities to the City of Brea including prominent ridgelines, scenic corridors and canyons, view corridors and vista points, roadways through undisturbed habitat, highways, and natural landscaping (Brea, 2003a, p. 4-36). The Puente Hills are located approximately 2.0 miles north of the Project Site and the Chino Hills are located approximately 4.2 miles east of the Project Site (Google Earth, 2022). As shown on Figure 4.1-1, the 1.88-acre Project Site contains six exiting commercial/office buildings, with paved parking lots and drive aisles, but does not contain any scenic resources or any landforms of visual interest. The Project Site is located approximately 0.9-mile west of State Route 57 (SR-57), an eligible scenic highway corridor; however due to intervening development and relatively flat topography, SR-57 is not visible from the Project Site (Caltrans, 2019).

C. Light and Glare

Artificial light is associated with the evening and nighttime hours, and sources may include but not be limited to streetlights, illuminated signage, vehicle headlights, and exterior accent and safety lighting common in developed areas. Glare is primarily a daytime occurrence caused by the reflection of sunlight or artificial light from highly polished surfaces, such as window glass or reflective materials, and, to a lesser degree, from broad expanses of light-colored surfaces. Glare can also be produced during evening and nighttime hours by artificial light directed toward a light-sensitive land use.

The Project Site is developed with six existing commercial/office buildings which emit sources of artificial lighting, including exterior lighting. Artificial lighting also occurs in the vicinity due to streetlights on South Orange Avenue, Imperial Highway, and South Flower Avenue, and the commercial, public facility, and residential development in the surrounding area.

View 1: View from the intersection of S. Flower Ave and Imperial Hwy looking northwest.

View 2: View from the intersection of S. Orange Ave and Imperial Hwy looking northeast.

View 3: View from the northeast corner of the Project Site along S. Flower Ave looking southwest.

View 4: View from the northwest corner of the Project Site along S. Orange Ave looking southeast.

Key Map

Figure 4.1-1

Not to Scale

Project Site Photographs

4.1.2 Regulatory Setting

A. State Plans, Policies, and Regulations

1. California Scenic Highways

The California Department of Transportation (Caltrans) manages the State Scenic Highway Program, established in 1963 through Senate Bill 1467, Streets and Highways Code, Sections 260 through 263 to protect and enhance the natural scenic beauty of California highways and adjacent corridors, through special conservation treatment. A highway may be designated as scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. Scenic corridors consist of land that is visible from, adjacent to, and outside the highway right-of-way, and is comprised primarily of scenic and natural features. Topography, vegetation, viewing distance, and/or jurisdictional lines determine the corridor boundaries. Scenic highways are classified as either Officially Designated or Eligible for designation and Caltrans maintains the lists of these highways. (Caltrans, 2022a)

State Route 57 (SR-57) located approximately 0.9-mile east of the Project Site is listed as an eligible scenic highway corridor (Caltrans, 2019).

B. Local Plans, Policies, and Regulations

1. City of Brea General Plan

The City of Brea General Plan identified the community's vision for its future and establishes a framework to guide future development, resource management, public safety and services, and general community well-being. The General Plan contains seven elements including Land Use, Circulation, Housing, Conservation, Open Space, Noise, and Safety organized by themed chapters which address interrelated issues. Goal are presented to provide a broad statement of purpose or direction, and policies are presented to provide guidance to the City Council, Planning Commission, and other City commissions, boards, and staff for use in reviewing development proposals.

2. City of Brea Municipal Code

The City of Brea Municipal Code Section 20.258 is applicable to Mixed-Use Zoning Districts and Section 20.08.040 provides development standards for exterior lighting of commercial parking areas. Lighting is required to be equivalent to one foot candle of illumination on average throughout the parking area, be on a time-clock or photo-sensor system, be designed to confine direct rays to the premises, and be high pressure sodium vapor with ninety-degree horizontal cut-off flat lenses. (Brea, 2022a, § 20.258 and § 20.08.040)

4.1.3 Methodology for Evaluating Aesthetics Impacts

The analysis of aesthetics impacts will focus on changes to scenic vistas, viewsheds, and scenic resources, visual character, and the introduction of new sources of light and glare.

The analysis of potential impacts to scenic vistas, viewsheds, and scenic resources will identify whether the Project would block or otherwise substantially and adversely affect a unique view of a scenic vista(s) or scenic resource as seen from a public viewing location(s), such as a public road, school, park, trail, and/or other publicly-owned property at which the general public is legally authorized to use or congregate. Effects to scenic vistas from private properties will not be considered because the City's General Plan calls for the protection of public views and the City does not have any ordinances or policies in place that protect views from privately-owned property.

The U.S. Census Bureau defines an "urbanized area" as a densely settled core of census tracts and/or census blocks that have 50,000 or more residents and meet minimum population density requirements while also being adjacent to territory containing non-residential urban land uses. The Project Site is located in an urbanized area and is within the boundaries of the Census-defined Los Angeles-Long Beach-Anaheim urban area (USCB, 2012); therefore, the analysis of potential impacts to visual character will consider whether the Project design conflicts with applicable zoning and other applicable regulations governing scenic quality.

Lastly, the analysis of light and glare will consider if the Project would directly expose the surrounding area with bright lights or create unwanted light in the night sky including light trespass, sky glow, or over-lighting, or adversely affect day or nighttime views in the area.

4.1.4 Basis for Determining Significance

The thresholds listed below are derived directly from Appendix G of the CEQA Guidelines, and address the typical, adverse effects related to aesthetics that could result from development projects. The Project would result in a significant impact to aesthetic resources if the Project or any Project-related component would:

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

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

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

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

4.1.5 IMPACT ANALYSIS

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

Scenic vistas are generally described in two ways: (1) panoramic views (visual access to a large geographic area, for which the field of view can be wide and extend into the distance); and (2) focal views (visual access to a particular object, scene, or feature of interest).

The photographs provided in Figure 4.1-1 depict the Project Site under existing conditions. As shown, the Project Site is developed with six commercial/office buildings with paved parking areas, drive aisles, and ornamental landscaping. The Project Site does not contain any special or unique scenic attributes, like rock outcroppings, native vegetation, or a substantial number of mature native trees. The City of Brea General Plan does not identify any scenic vistas or corridors on the Project Site or in the vicinity of the Project Site.

The City of Brea General Plan identifies the scenic qualities of the Puente and Chino Hills for their prominent ridgelines, scenic corridors and canyons, view corridors and vista points, roadways through undisturbed habitat, highways, and natural landscaping. The Puente Hills are located approximately 2.0 miles north of the Project Site and the Chino Hills are located approximately 4.2 miles east of the Project Site (Google Earth, 2022). Views of the Puente Hills are visible from the public viewing areas of South Orange Avenue, South Flower Avenue, Laurel Elementary School, and Lagos De Moreno Park. Views of the Chino Hills are visible from the public viewing areas of Imperial Highway.

The maximum height of the proposed building on the southwest portion of the Project Site would be 22.5 feet and the maximum height of the proposed building on the southeast portion of the Project Site would be 18.8 feet. Of the four existing buildings proposed to be demolished as part of the Project, the building in the southeast portion of the Project Site is 28.9 feet in height; the building in the southcentral portion of the Project Site is 17.1 feet in height; the building in the southwest portion of the Project Site is 24.9 feet in height; and the building on the western central portion of the Project Site is 23.3 feet in height. Three out of four existing buildings are taller in height than the proposed southeastern building, and one of the existing buildings is taller in height than the proposed southwestern building. Views of the Puente Hills and Chino Hills that are available from the public rights-of-way surrounding the Project Area under existing conditions (i.e., from South Orange Street, South Flower Street, the City parking lot, Laurel Elementary School, and Lagos De Moreno Park) would not be obstructed by redevelopment on the Project Site as proposed by the Project because a viewer would need to look northeast within the South Orange Avenue, Imperial Highway, South Flower Avenue, City parking lot, Laurel Elementary School, and Lagos De Moreno Park public right-of-way to have a view of the Puente Hills and southeast to have a views of the Chino Hills. These views would not be obstructed by redevelopment on the Project Site as proposed by the Project because a viewer would not need to look north from Imperial Avenue or west from South Orange Avenue across the Project Site to have a view of the Puente or Chino Hills. Therefore, there is no potential for future development of the Project Site to encroach within the South Orange Avenue, Imperial Avenue, South Flower Avenue, City parking lot, Laurel Elementary School, or Lagos De Moreno Park public right-of-way view and obstruct views of the Puente or Chino Hills, and impacts would be less-than-significant.

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

The evaluation of scenic resources is focused on whether identified scenic resources on the Project Site or within the vicinity of the Project would be substantially directly or indirectly damaged. As shown by the photographs in Figure 4.1-1, the Project Site is developed with six commercial/office buildings with paved parking lots and drive aisles. The Project Site does not contain any special or unique scenic attributes, like rock outcroppings, native vegetation, or a substantial number of mature trees.

The Project Site is not located near any designated State scenic highway (Caltrans, 2019). The closest State-Eligible scenic highway to the Project Site is SR-57 that is located approximately 0.9-mile east of the Project Site. Due to distance and intervening development, the Project Site is not visible from this State-Eligible SR-57. Accordingly, implementation of the Project would not adversely impact the viewshed within a scenic highway corridor and impacts would be less-than-significant.

***Threshold c*: 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?**

The Project Site is located in an area that meets the U.S. Census Bureau's definition of an "urbanized area" and the property is planned for urban uses by the City's General Plan; therefore, for purposes of evaluation herein the Project is considered to be located in an urbanized area. For reference associated with the below evaluations, the Project's designs, including site layouts, architecture, and landscaping are discussed and illustrated in detail in EIR Section 3.0, *Project Description*.

The proposed building in the southwestern portion of the Project Site would have a variable roofline measuring up to 22.5 feet in height at the northwest corner of the building, with remaining portions of the building measuring between 19.0 to 20.5 feet in height. The building would primarily be treated with wood lap siding, with the southwest corner of the building being treated with grey smooth siding atop which would be treated with white-colored brick. The proposed building in the southeastern portion of the Project Site would measure up to approximately 18.8 feet in height for wall screening of rooftop equipment, while the main building would measure approximately 15.8 feet in height. The building primarily would be treated with grey wood lap siding, with the western elevation consisting primarily of slate-colored concrete. A rendering of the proposed building in the southwestern portion of the Project Site is provided as Figure 4.1-2, *Rendering of the Proposed Western Building*, and a rendering of the proposed building in the southeastern portion of the Project Site is provided as Figure 4.1-3, *Rendering of the Proposed Eastern Building*.

The Project Applicant applied for Zone Change (ZC) No. 2022-02 to amend the City's Zoning District Map to change the zoning classification of the Project Site from "Administrative and Professional Office (C-P)" with

NOTE: COLOR ELEVATIONS

DUE TO LIMITATIONS OF THE PRINTING PROCESS, SURFACE TEXTURE OF MATERIALS, ETC., THE COLORS SHOWN ON THIS DRAWING WILL VARY. COLORS AND MATERIALS SHOWN ARE APPROXIMATE AND ARE TAKEN FROM SITE PHOTOS OF EXISTING CONDITIONS.

Source(s): Lyons Warren Engineers + Architects (12-13-2022)

Figure 4.1-2

Not to Scale

Rendering of the Proposed Western Building

NOTE: COLOR ELEVATIONS

DUE TO LIMITATIONS OF THE PRINTING PROCESS, SURFACE TEXTURE OF MATERIALS, ETC., THE COLORS SHOWN ON THIS DRAWING WILL VARY. COLORS AND MATERIALS SHOWN ARE APPROXIMATE AND ARE TAKEN FROM SITE PHOTOS OF EXISTING CONDITIONS.

Source(s): Lyons Warren Engineers + Architects (12-13-2022)

Not to Scale

Figure 4.1-3

Rendering of the Proposed Eastern Building

a "Precise Development (P-D)" overlay to "Mixed Use III." The Project represents redevelopment of the southern portion of the site in compliance with applicable provisions of the Brea Municipal Code, including established development standards as stipulated in Section 20.258, Mixed-Use Zoning Districts. No physical changes to the northern portion of the Project Site are proposed or are reasonably foreseeable as a result of the proposed Project. The City's established development standards in the Municipal Code protect the visual quality of the City. The Project would not conflict with applicable development standards in the Brea Municipal Code for the Mixed-Use III Zone; therefore, impacts would be less-than-significant.

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

Under existing conditions, the Project Site is developed with six commercial/office buildings which emit sources of artificial lighting, including exterior lighting. Reflective glass is included in the existing buildings façades. Artificial lighting also occurs in the vicinity due to streetlights on South Orange Avenue, Imperial Highway, and South Flower Avenue, and the commercial, public facility, and residential development in the surrounding area.

The Project would introduce new light sources to the Project Site as necessary for security, safety, and wayfinding, but would be substantially similar to the amount of lighting that occurs on the property under existing conditions. Consistent with Section 20.08.040.C.5.b of the Brea City Code, which establishes general lighting standards, all off-street parking areas within commercial zoned areas shall be provided with exterior lighting meeting the equivalent of one foot candle of illumination, be on a time-clock or photo-sensor system, be designed to confine direct rays to the premises without spillover beyond the property line, and with parking lot luminaries having a high pressure sodium vapor with 90-degree horizontal cut-off flat lenses. A lighting plan is included in the Project application materials, illustrated in Figure 4.1-4, *Photometric Plan*.

Glare is caused by light reflections from pavement, vehicles, and building materials such as reflective glass and polished surfaces. During daylight hours, the amount of glare depends on intensity and direction of sunlight. Proposed exterior building materials primarily include wood lap siding, painted concrete, brick, and tempered glass. In addition, the proposed Project would introduce landscaping along the eastern, southern, and western boundaries of the site, as well as areas surrounding the proposed buildings, greatly limiting the potential for any glare effects associated with the Project and especially at the street level due to the increased landscape screening. Therefore, implementation of the Project would not result in a significant source of light or glare that would adversely affect daytime or nighttime views. Accordingly, impacts would be less-than-significant.

4.1.6 Cumulative Impact Analysis

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects and planned development in the area within the same viewsheds. The CEQA Guidelines define a "cumulative impact" as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines Section 15355).

Luminaire Schedule				
Qty	Label	LLF	Description	Lum. Lumens
2	R3	0.900	Lithonia RSX1 LED P2 30K R3	9959
8	R5	0.900	Lithonia RSX1 LED P2 30K R5	9197
4	R4	0.900	Lithonia RSX1 LED P2 30K R4	9076
3	R3-HS	0.900	Lithonia RSX1 LED P2 30K R3 HS (House Side Shield)	6297

Calculation Summary						
Label	Units	Avg	Max	Min	Avg/Min	Max/Min
Parking Lot	Fc	1.93	6.4	0.6	3.22	9.00
Property Line	Fc	0.34	0.9	0.0	N.A.	N.A.

KEY NOTES

1. ILLUMINATION AREAS WHERE A MINIMUM OF 1 FOOT CANDLE IS REQUIRED AT THE WALKING SURFACE AND PATH OF TRAVEL TO PUBLIC WAY (CBC SEC.1008.2.3). THESE LIGHTS WILL BE PROVIDED ONCE PLANS ARE PROVIDED AND SUBMITTED FOR PLAN CHECK.

Source(s): Smith & Boucher, Inc. (12-13-2022)

Not to Scale

Figure 4.1-4

Photometric Plan

The Project's effects to scenic views of the Puente and Chino Hills, if any, would be localized to the immediate Project Site area and would not extend beyond the public viewing areas that immediately abut the Project Site (South Orange Avenue, Imperial Highway, South Flower Avenue, the City parking lot, Laurel Elementary School, and Lagos De Moreno Park). The views that would be affected only occur abutting the Project Site and the Project does not contain any off-site components that could adversely affect scenic views that occur elsewhere in the City. Furthermore, the Project impacts to local scenic views are inherently site specific and not influenced or exacerbated by effects to scenic views that may occur at other, off-site properties. Because of the site-specific nature of these impacts, there would be no direct or indirect connection to similar potential issues or cumulative effects to or from other properties pursuant to Threshold "a."

As noted under the analysis of Threshold "b," the Project Site is not located within close proximity to any designated State scenic routes and does not contain any scenic resources. Therefore, the Project has no potential to contribute to a cumulatively significant impact to scenic resources within a designated scenic route corridor.

Under existing conditions, the area surrounding the Project Site is a mix of commercial, residential, and public facilities. As with the Project, any development in the surrounding area would be subject to applicable development regulations and design standards, including the Brea Municipal Code. Mandatory compliance to applicable development regulations and design standards would ensure that developments would incorporate high quality building materials, site design, and landscaping to preclude potential conflicts with applicable zoning and other regulations governing visual quality.

With respect to potential cumulative light and glare impacts, the Project would be required to comply with City of Brea Municipal Code Section 20.08.040, which establishes general lighting standards. All parking areas should provide exterior lighting meeting the equivalent of one foot candle of illumination, be on a time-clock or photo-sensor system, be designed to confine direct rays to the premises without spillover beyond the property line, and with parking lot luminaries having a high pressure sodium vapor with 90-degree horizontal cut-off flat lenses. Enforcement of these lighting regulations has the effect of minimizing light and glare that would affect daytime views and/or create sky glow. Any cumulative development in the Projects' surrounding area would be required to comply with the applicable legal standard and code requirements which would ensure that future cumulative development would not introduce substantial sources of lighting or glare. As such, the Project would not contribute to cumulatively-considerable, adverse impacts to the existing daytime or nighttime views of the Project Site or its surroundings.

4.1.7 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The Project would not substantially affect a scenic vista. The Project Site does not contain any designated scenic vistas or scenic corridors. The Project would not substantially affect views of the Puente or Chino Hills from nearby public viewing areas.

Threshold b: Less-than-Significant Impact. The Project Site is not located within the viewshed of a scenic highway and does not contain scenic resources.

Threshold c: Less-than-Significant Impact. The Project is located in an urbanized area would not conflict with applicable zoning and other regulations governing scenic quality during construction or operation.

Threshold d: Less-than-Significant Impact. Compliance with Brea Municipal Code and Brea General Plan requirements for artificial lighting would ensure less-than-significant impacts associated with light and glare affecting day or nighttime views in the area from on-site lighting elements.

4.1.8 Mitigation

Impacts to aesthetics would be less-than-significant; therefore, mitigation measures are not required.

4.2 AIR QUALITY

This Subsection is based primarily on a technical study that was prepared by Urban Crossroads, Inc. to evaluate the potential for Project-related construction and operational activities to result in adverse effects on local and regional air quality. The report is titled "Brea Gaslight Square, Air Quality Impact Analysis, City of Brea," dated January 23, 2023, and is included as *Technical Appendix B* to this EIR (Urban Crossroads, 2023a). All references used in this Subsection are listed in EIR Section 7.0, *References*.

4.2.1 EXISTING CONDITIONS

A. Atmospheric Setting

The Project Site is located in the South Coast Air Basin (SCAB, or "Basin"), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAB encompasses approximately 6,745 square miles and includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bound by the Pacific Ocean to the west; the San Gabriel, San Bernardino, and the San Jacinto Mountains to the north and east, respectively; and the San Diego County line to the south. (Urban Crossroads, 2023a, p. 5)

B. Regional Climate

The regional climate – temperature, wind, humidity, precipitation, and the amount of sunshine – has a substantial influence on air quality. The SCAB's distinctive climate is determined by its terrain and geographical location, which comprises a coastal plain connected to broad valleys and low hills bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter. The SCAB is semi-arid, with average annual temperatures varying from the low-to-middle 60s, measured in degrees Fahrenheit (F); however, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of the SCAB's climate. Humidity restricts visibility in the SCAB and the relative high humidity heightens the conversion of sulfur dioxide (SO_2) to sulfates (SO_4). The marine layer provides an environment for that conversion process, especially during the spring and summer months. Inland areas of the SCAB, including where the Project Site is located, show more variability in annual minimum/maximum temperatures and lower average humidity than coastal areas within the SCAB due to decreased marine influence. (Urban Crossroads, 2023a, p. 5)

More than 90 percent of the SCAB's rainfall occurs between November and April. The annual average rainfall within the SCAB varies between approximately nine inches in Riverside to 14 inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SCAB. Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB; the remaining one-quarter is absorbed by clouds. The abundant amount of sunshine (and its associated ultraviolet radiation) is a key factor to the photochemical reactions of air pollutants in the SCAB. (Urban Crossroads, 2023a, pp. 5-6)

Dominant airflow direction and speed are the driving mechanisms for transport and dispersion of air pollution. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with

storms moving through the region from the northwest. This period also brings five to 10 periods of strong, dry offshore winds, locally termed "Santa Anas" each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. During the nighttime, heavy, cool air descends mountain slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. (Urban Crossroads, 2023a, p. 6)

In the SCAB, there are two distinct temperature inversion structures that control the vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level. A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as nitrogen oxides and carbon monoxide, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline. (Urban Crossroads, 2023a, p. 6)

The discussion above summarizes information from the Brea Gaslight Square Air Quality Impact Analysis (AQIA) contained as *Technical Appendix B*. Refer to Sections 2.2 and 2.3 of the Project's AQIA (*Technical Appendix B*) for a detailed description of regional climate and wind patterns.

C. Criteria Pollutants and Associated Human Health

The federal government and State of California have established maximum permissible concentrations for common air pollutants that may pose a risk to human health or would otherwise degrade air quality and adversely affect the environment. These regulated air pollutants are referred to as "criteria pollutants." An overview of the common criteria air pollutants in the SCAB, their sources, and associated effects to human health are summarized on the following pages (refer also to Section 2.4 of the Brea Gaslight Square AQIA (*Technical Appendix B*) for a detailed discussion of criteria pollutants).

- **Carbon Monoxide (CO)** is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest in the winter during the morning, when there is little to no wind and surface-based inversions trap the pollutant at ground levels. CO is emitted directly from internal combustion engines; therefore, motor vehicles operating at slow speeds are the primary source of CO and the highest ambient CO concentrations in the SCAB are generally found near congested transportation corridors and intersections.

Human Health Effects

Inhaled CO does not directly affect the lungs but affects tissues by interfering with oxygen transport and competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Therefore, health conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. The most common symptoms associated with CO exposure include headache, nausea, vomiting, dizziness, fatigue, and muscle weakness. Individuals most at risk to the effects of CO include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic oxygen deficiency.

- **Sulfur Dioxide (SO_2)** is a colorless gas or liquid. SO_2 enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms sulfates (SO_4). Collectively, these pollutants are referred to as sulfur oxides (SO_X).

  Human Health Effects

  SO_2 is a respiratory irritant to people afflicted with asthma. After a few minutes' exposure to low levels of SO_2, asthma sufferers can experience breathing difficulties, including airway constriction and reduction in breathing capacity. Although healthy individuals do not exhibit similar acute breathing difficulties in response to SO_2 exposure at low levels, animal studies suggest that very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.

- **Nitrogen Oxides (NO_X)** consist of nitric oxide (NO), nitrogen dioxide (NO_2) and nitrous oxide (N_2O) and are formed when nitrogen (N_2) combines with oxygen (O_2). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes and are major contributors to smog formation and acid deposition. NO_2 is a criteria air pollutant, and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere, and reduced visibility. Of the nitrogen oxide compounds, NO_2 is the most abundant in the atmosphere. As ambient concentrations of NO_2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO_2 than those indicated by regional monitoring stations.

  Human Health Effects

  Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO_2. Short-term exposure to NO_2 can result in resistance to air flow and airway contraction in healthy subjects. Exposure to NO_2 can result decreases in lung functions in individuals with asthma or chronic obstructive pulmonary diseases (e.g., chronic bronchitis, emphysema), as these individuals are more susceptible to the effects of NO_X than healthy individuals.

- **Ozone (O_3)** is a highly reactive and unstable gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_X), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the

summer months when direct sunlight, warm temperatures, and light wind conditions are favorable to the formation of this pollutant.

Human Health Effects

Short-term exposure (lasting for a few hours) to ozone at levels typically observed in southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Individuals exercising outdoors, children, and people with pre-existing lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for ozone effects. Children who participate in multiple outdoor sports and live in communities with high ozone levels have been found to have an increased risk for asthma.

- **Particulate Matter less than 10 microns (PM_{10}) and less than 2.5 microns ($PM_{2.5}$)** are air pollutants consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols that are 10 microns or smaller or 2.5 microns or smaller, respectively. These particles are formed in the atmosphere from primary gaseous emissions that include sulfates formed from SO_2 release from power plants and industrial facilities and nitrates that are formed from NO_X release from power plants, automobiles, and other types of combustion sources. The chemical composition of fine particles is highly dependent on location, time of year, and weather conditions.

  Human Health Effects

  The small size of PM_{10} and $PM_{2.5}$ allows them to enter the lungs where they may be deposited, resulting in adverse health effects. Elevated ambient concentrations of fine particulate matter (PM_{10} and $PM_{2.5}$) have been linked to an increase in respiratory infections, number, and severity of asthma attacks, and increased hospital admissions. Some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in lifespan, and an increased mortality from lung cancer. Daily fluctuations in $PM_{2.5}$ concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long-term exposure to particulate matter. The elderly, people with pre-existing respiratory or cardiovascular disease, and children, appear to be the most susceptible to the effects of high levels of PM_{10} and $PM_{2.5}$.

- **Volatile Organic Compounds (VOCs)** and **Reactive Organic Gasses (ROGs)** are a family of hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. Both VOCs and ROGs are precursors to ozone and contribute to the formation of smog through atmospheric photochemical reactions. Individual VOCs and ROGs have different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes. VOCs often have an odor, including such common VOCs as gasoline, alcohol, and the solvents used in paints.

Human Health Effects

Odors generated by VOCs can irritate the eye, nose, and throat, which can reduce respiratory volume. In addition, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system.

- **Lead (Pb)** is a heavy metal that is highly persistent in the environment. Historically, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. Currently, emissions of lead are largely limited to stationary sources such as lead smelters.

  Human Health Effects

  Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure. Lead poisoning can cause anemia, lethargy, seizures, and death. Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure.

Refer also to EIR Subsection 2.4, *Community Demographics and Pollution Burden*, which explains that the census tract containing the Project Site (Census Tract 6059001504) is reported by CalEPA's Office of Environmental Health Hazard Assessment (OEHHA) as being within the 94th percentile for pollution burden which, based on the census tract's demographic characteristics, results in finding that the census tract is in the 67th percentile of communities that are disproportionately burdened by multiple sources of pollution (OEHHA, 2022).

D. Existing Air Quality

Air quality is evaluated in the context of ambient air quality standards published by the federal and State governments. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. The National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect are detailed in Table 4.2-1, *Attainment Status of Criteria Pollutants in the SCAB*.

Table 4.2-1 Attainment Status of Criteria Pollutants in the SCAB

Criteria Pollutant	State Designation	Federal Designation
O_3 – 1-hour standard	Nonattainment	--
O_3 – 8-hour standard	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Unclassifiable/Attainment
NO_2	Attainment	Unclassifiable/Attainment
SO_2	Attainment	Unclassifiable/Attainment
Pb[1]	Attainment	Unclassifiable/Attainment

Note: See Appendix 2.1 from the Project's AQIA for a detailed map of State/National Area Designations within the SCAB
"-" = The national 1-hour O_3 standard was revoked effective June 15, 2005.
[1] The Federal nonattainment designation for lead is only applicable towards the Los Angeles County portion of the SCAB.
Source: (Urban Crossroads, 2023a, Table 2-3)

1. *Regional Air Quality*

❑ Criteria Pollutants

The SCAQMD monitors levels of various criteria pollutants at 37 permanent monitoring stations and 5 single-pollutant source Pb air monitoring sites throughout the Basin (Urban Crossroads, 2023a, p. 17). The attainment status for criteria pollutants within the SCAB is summarized in Table 4.2-2, *Ambient Air Quality Standards*.

Table 4.2-2 Ambient Air Quality Standards

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

Source: (Urban Crossroads, 2023a, Table 2-2)

Table 4.1-2 Ambient Air Quality Standards (2 of 2)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, 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.
2. 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 PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, 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 the U.S. EPA for further clarification and current national policies.
3. 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.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. 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.
11. 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.
12. The ARB 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.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ 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.
14. In 1989, the ARB 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.

Source: (Urban Crossroads, 2023a, Table 2-2)

2. *Local Air Quality*

❑ Criteria Pollutants

Ambient air pollutant concentrations in the Project area are summarized in Table 4.2-3, *Project Area Air Quality Monitoring Summary 2019-2021* . Local air quality data was collected from the SCAQMD air quality monitoring station located nearest to the Project Site: North Orange County monitoring station (SRA 16). The North Orange County monitoring station does not include data for PM10 and PM2.5. The Central Orange County monitoring station is located in SRA 17 and is the nearest monitoring station for PM10 and PM2.5 and was used in lieu of the North Orange County monitoring station only in instances where data was not available. Data was collected for the three most recent years for which data was available (2019-2021).

Table 4.2-3 Project Area Air Quality Monitoring Summary 2019-2021

Pollutant	Standard	Year		
		2019	2020	2021
O_3				
Maximum Federal 1-Hour Concentration (ppm)		0.107	0.171	0.103
Maximum Federal 8-Hour Concentration (ppm)		0.094	0.113	0.075
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	2	15	2
Number of Days Exceeding State/Federal 8-Hour Standard	> 0.070 ppm	6	23	3
CO				
Maximum Federal 1-Hour Concentration	> 35 ppm	2.6	2.1	2.3
Maximum Federal 8-Hour Concentration	> 20 ppm	1.2	1.2	1.3
NO_2				
Maximum Federal 1-Hour Concentration	> 0.100 ppm	0.059	0.057	0.064
Annual Federal Standard Design Value		0.012	0.013	0.013
PM_{10}				
Maximum Federal 24-Hour Concentration ($\mu g/m^3$)	> 150 $\mu g/m^3$	127	120	115
Annual Federal Arithmetic Mean ($\mu g/m^3$)		21.9	23.9	22.9
Number of Days Exceeding Federal 24-Hour Standard	> 150 $\mu g/m^3$	0	0	0
Number of Days Exceeding State 24-Hour Standard	> 50 $\mu g/m^3$	13	13	12
$PM_{2.5}$				
Maximum Federal 24-Hour Concentration ($\mu g/m^3$)	> 35 $\mu g/m^3$	36.10	41.40	54.6
Annual Federal Arithmetic Mean ($\mu g/m^3$)	> 12 $\mu g/m^3$	9.32	11.27	11.44
Number of Days Exceeding Federal 24-Hour Standard	> 35 $\mu g/m^3$	3	1	9

ppm = Parts Per Million
$\mu g/m^3$ = Microgram per Cubic Meter
Source: (Urban Crossroads, 2023a, Table 2-4)

4.2.2 Regulatory Setting

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

A. Federal Regulations

1. Federal Clean Air Act

The Clean Air Act (CAA; 42 U.S.C. § 7401 et seq.) is the comprehensive federal law that regulates air emissions from stationary and mobile sources. Among other things, this law authorizes Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants, which include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_x), sulfur dioxide (SO_2), particulate matter (PM_{10}), $PM_{2.5}$, and lead (Pb). (EPA, 2022a)

One of the goals of the CAA was to set and achieve NAAQS in every state by 1975 in order to address the public health and welfare risks posed by certain widespread air pollutants. The setting of these pollutant standards was coupled with directing the states to develop state implementation plans (SIPs), applicable to appropriate industrial sources in the state, in order to achieve these standards. The CAA was amended in 1977 and 1990 primarily to set new goals (dates) for achieving attainment of NAAQS since many areas of the country had failed to meet the deadlines. (EPA, 2022a)

The sections of the federal CAA most directly applicable to the development of the Project Site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions). Title I provisions address the urban air pollution problems of O_3 (smog), CO, and PM_{10}. Specifically, it clarifies how areas are designated and re-designated "attainment." It also allows EPA to define the boundaries of "nonattainment" areas: geographical areas whose air quality does not meet Federal air quality standards designed to protect public health. (EPA, 2022b) Mobile source emissions are regulated in accordance with the CAA Title II provisions. These standards are intended to reduce tailpipe emissions of hydrocarbons, CO, and NO_X on a phased-in basis that began in model year 1994. Automobile manufacturers also are required to reduce vehicle emissions resulting from the evaporation of gasoline during refueling. These provisions further require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. (EPA, 2022c)

Section 112 of the Clean Air Act addresses emissions of hazardous air pollutants. Prior to 1990, CAA established a risk-based program under which only a few standards were developed. The 1990 Clean Air Act Amendments revised Section 112 to first require issuance of technology-based standards for major sources and certain area sources. "Major sources" are defined as a stationary source or group of stationary sources that emit or have the potential to emit 10 tons per year or more of a hazardous air pollutant or 25 tons per year or more of a combination of hazardous air pollutants. An "area source" is any stationary source that is not a major source. (EPA, 2022a)

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

to as "maximum achievable control technology" or "MACT" standards. Eight years after the technology-based MACT standards are issued for a source category, EPA is required to review those standards to determine whether any residual risk exists for that source category and, if necessary, revise the standards to address such risk. (EPA, 2022a)

2. SmartWay Program

The US EPA's SmartWay Program is a voluntary public-private program developed in 2004, which 1) provides a comprehensive and well-recognized system for tracking, documenting and sharing information about fuel use and freight emissions across supply chains; 2) helps companies identify and select more efficient freight carriers, transport modes, equipment, and operational strategies to improve supply chain sustainability and lower costs from goods movement; 3) supports global energy security and offsets environmental risk for companies and countries; and 4) reduces freight transportation-related emissions by accelerating the use of advanced fuel-saving technologies (EPA, 2022d). This program is supported by major transportation industry associations, environmental groups, State and local governments, international agencies, and the corporate community.

B. State Plans, Policies, and Regulations

1. California Clean Air Act (CCAA)

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

2. Air Toxic Hot Spots Act

The Air Toxic "Hot Spots" Information and Assessment Act of 1987, commonly known as AB 2588, (Health & Safety Code §§ 44300, et seq.) requires facilities emitting specified quantities of pollutants to conduct risk assessments describing the health impacts to neighboring communities created by their emissions of numerous specified hazardous compounds. If the district determines the health impact to be significant, neighbors must be notified. In addition, state law requires the facility to develop and implement a plan to reduce the health impacts to below significance, generally within five years. Additional control requirements for hazardous emissions from specific industries are established by the state and enforced by districts. (SCAQMD, n.d.)

3. Air Quality Management Planning

The California Air Resources Board (CARB) and local air districts throughout the State are responsible for developing clean air plans to demonstrate how and when California will attain air quality standards established

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

4. Truck & Bus Regulation

Under the Truck and Bus Regulation, adopted by CARB in 2008, all diesel truck fleets operating in California are required to adhere to an aggressive schedule for upgrading and replacing heavy-duty truck engines. The upgrades/replacements occurred on a rolling basis based on model year. By 2023, all heavy trucks operating on California roads must have engines that meet 2010 emissions standards. Lighter trucks (those with a gross vehicle weight rating of 14,001 to 26,000 pounds) adhered to a similar schedule, and were all replaced by 2020. (CARB, n.d.)

5. Advanced Clean Truck Regulation

In June, 2020, CARB adopted a new Rule requiring truck manufacturers to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024. By 2045, every new truck sold in California will be required to be zero-emission. Commercial availability of electric-powered long-haul trucks is very limited today. However, as technology advances over the next 20 years, zero-emission trucks will become suitable for more applications, and several truck manufacturers have announced plans to introduce market ready zero-emission trucks in the future. (CARB, 2021)

6. California Air Resources Board Rules

The CARB enforces rules related to air pollutant emissions in the State of California. Rules with applicability to the Project include, but are not limited to, those listed below.

- CARB Rule 2485 (13 CCR 2485): Airborne Toxic Control Measure to Limit Diesel-Fuel Commercial Vehicle Idling, which limits nonessential idling to five minutes or less for commercial trucks.
- CARB Rule 2449 (13 CCR 2449): In-Use Off-Road Diesel Idling Restricts, which limits nonessential idling to five minutes or less for diesel-powered off-road equipment.

C. Local Plans, Policies, and Regulations

1. SCAQMD Air Quality Management Plan

Under existing conditions, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, and in conformance with California Health & Safety Code Section 40702 *et seq.* and the California CAA, the

SCAQMD adopted an Air Quality Management Plan (AQMP) to plan for the improvement of regional air quality. AQMPs are updated regularly to more effectively reduce emissions and accommodate growth. Each version of the plan is an update of the previous plan and has a 20-year horizon with a revised baseline. The currently in-effect SCAQMD AQMP (2016 AQMP) was adopted in March 2017 (SCAQMD, 2017a). The draft 2022 AQMP was prepared by SCAQMD to address the EPA's strengthened ozone standard. The SCAQMD Governing Board adopted the draft 2022 AQMP at its December 2, 2022, meeting; however, the draft 2022 AQMP requires CARB's adoption before submittal for the U.S. EPA's final approval, which is expected to occur sometime in 2023. (Urban Crossroads, 2023a, p. 40)

2. SCAQMD Rules

The SCAQMD enforces rules related to air pollutant emissions in the SCAB. Rules with applicability to the Project include, but are not limited to, those listed below.

- SCAQMD Rule 402 (Nuisance Odors): Prohibits the discharge of air contaminants that cause nuisance or annoyance to any considerable number of persons or to the public.
- SCAQMD Rule 403 (Fugitive Dust): Requires the implementation of best available dust control measures (BACMs) during activities capable of generating fugitive dust. Rule 403 also requires activities defined as "large operations" to notify the SCAQMD by submitting specific forms; a large operation is defined as any active operation on property containing 50 or more acres of disturbed surface area; or any earth moving operation with a daily earth-moving or throughput volume of 3,850 cubic meters (5,000 cubic yards), three times during the most recent 365-day period.
- SCAQMD Rule 431.2 (Low Sulfur Fuel): Requires the use of diesel fuels that adhere to sulfur content limits.
- SCAQMD Rule 1108 (Cutback Asphalt): Prohibits the use of asphalt that exceeds a specified percentage of VOCs.
- SCAQMD Rule 1113 (Architectural Coatings): Requires all buildings within the SCAQMD to adhere to the VOC limits for architectural coatings.
- SCAQMD Rule 1186 (PM_{10} Emissions from Paved and Unpaved Roads, and Livestock Operations): Requires the use of street sweepers that meet minimum standards for cleaning capabilities.
- SCAQMD Rule 1301 (General): Provides pre-construction review requirements to ensure that new or relocated facilities do not interfere with progress in attainment of the NAAQS. Rule 1301 also limits emission increase of ammonia and ozone depleting compounds from new, modified, or relocated facilities by requiring the use of Best Available Control Technology (BACT).
- SCAQMD Rule 1401 (New Source Review of Toxic Air Contaminants): Prohibits a person from discharging into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any 1 hour that is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines.

4.2.3 METHODOLOGY FOR CALCULATING PROJECT-RELATED AIR QUALITY IMPACTS

The California Emissions Estimator Model (CalEEMod), version 2022.1, was used to calculate Project-related air pollutant emissions. The CalEEMod is a Statewide land use emission computer model developed for the California Air Pollution Officers Association (CAPCOA) in collaboration with the California Air Districts, including the SCAQMD, that provides a uniform platform to quantify potential criteria pollutant emissions associated with construction and operation of land development projects.

A. Methodology for Calculating Project Construction Emissions

1. Regional Pollutant Emissions

The Project's construction period will last approximately 7 months and will include 5 activity phases: 1) demolition; 2) site preparation; 3) grading; 4) building construction; 5) paving; and 6) architectural coating. For purposes of the air quality analysis, the Project's construction activities are assumed to occur between January 2024 and July 2024. This assumption represents a conservative analysis scenario because, should construction occur later than the dates assumed in the analysis, construction equipment emissions would be the same or, more likely, lower than presented because emission regulations are becoming more stringent over time and the retirement of older (higher-polluting) equipment and replacement with newer (less-polluting) pieces of equipment is constantly happening in response to State regulations or service needs (Urban Crossroads, 2023a, p. 26). The air quality analysis model utilizes the durations of each construction activity phase and the construction equipment fleet previously presented in EIR Section 3.0, *Project Description*. The analysis assumptions for Project construction are based on information provided by the Project Applicant and the experience and technical expertise of the Project's air quality technical expert (Urban Crossroads).

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

2. Localized Pollutant Emissions

Project-related localized pollutant emissions were calculated in accordance with the SCAQMD's *Final Localized Significance Threshold (LST) Methodology* using the process described below. The CalEEMod was utilized to determine the maximum daily on-site emissions that would occur during construction activity. The SCAQMD's *Fact Sheet for Applying CalEEMod to LSTs* was used to determine the maximum Project Site acreage that would be actively disturbed based on the construction equipment fleet and equipment hours as estimated in the CalEEMod. The equipment-specific disturbance rates were obtained from the CalEEMod user's guide, *Appendix A: Calculation Details for CalEEMod* (October 2017). SCAQMD's methodology recommends using look-up tables for projects with a disturbance area of less than or equal to 5.0 acres in size and using dispersion modeling for projects with a disturbance area greater than 5.0 acres in size. It is anticipated that the Project's construction activities could actively disturb approximately 0.5-acre per day for demolition, 1 acre per day during site preparation, and 1.5 acres per day for grading activities (Urban Crossroads, 2023a, p. 33). Accordingly, the SCAQMD's screening look-up tables were utilized to determine localized pollutant concentration levels at sensitive receptor locations near the Project Site. Emission concentrations were modeled at eight receptor locations near the Project Site, including existing residences north and south of the

Project Site, existing businesses north of the Project Site, and Laurel Elementary School east of the Project Site.

Refer to Section 3.6 of the Project's AQIA (*Technical Appendix B*) for more detail on the methodology utilized to calculate Project construction-related localized pollutant emissions.

B. Methodology for Calculating Project Operational Emissions

1. Regional Pollutant Emissions

The Project's operational-related regional pollutant emissions analysis quantifies air pollutant emissions from mobile sources (vehicle tailpipes), area sources (e.g., architectural coatings, consumer products, landscape maintenance equipment), and energy sources. Mobile source emissions are the product of the number of daily vehicle trips generated by the Project, including employee trips to and from the Site and vendor trips associated with the proposed uses. The Project is expected to generate approximately 510 more vehicle trips than are being generated by the uses at the Project Site under existing conditions (Urban Crossroads, 2023e).

Refer to Section 3.5 of the Project's AQIA (*Technical Appendix B*) for detailed information on the methodology utilized to calculate regional pollutant emissions during Project operation.

2. Localized Pollutant Emissions

The Project entails redevelopment activities on 0.95 acres. As previously stated, the Project Applicant proposes the demolition of the four existing buildings and the redevelopment of this portion of the Project Site with two new commercial buildings. A 6,000 s.f. commercial building is proposed at the northeast corner of South Orange Avenue and Imperial Highway, which would include a 2,400 s.f. sit-down restaurant and 3,600 s.f. of retail or medical office uses. In addition, an approximate 2,000 s.f. drive-through restaurant is proposed at the northwest corner of South Flower Avenue and Imperial Highway. According to SCAQMD LST methodology, LSTs would apply to the operational phase of a proposed project, if the project includes stationary sources, or attracts mobile sources that may spend long periods queuing and idling at the site (e.g., transfer facilities and warehouse buildings). The proposed project does not include such uses, and thus, due to the lack of significant stationary source emissions, no long-term localized significance threshold analysis is needed.

4.2.4 Basis for Determining Significance

According to Section III of Appendix G to the CEQA Guidelines, the proposed Project would result in a significant impact to air quality if the Project or any Project-related component would:

a. *Conflict with or obstruct implementation of the applicable air quality plan;*

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

c. *Expose sensitive receptors to substantial pollutant concentrations;*

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

The Project would result in a significant impact under Threshold "a" if the Project were determined to conflict with the SCAQMD *2016 AQMP*. Although the draft 2022 AQMP was approved by the SCAQMD in December 2022, it still requires CARB and EPA approval, so it was not a fully approved plan at the time this EIR was prepared. Pursuant to Chapter 12, Sections 12.2 and 12.3 of the SCAQMD *CEQA Air Quality Handbook*, a project would conflict with the *AQMP* if either of the following conditions were to occur:

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

For evaluation under Threshold "b," per SCAQMD's cumulative impact analysis guidance in their *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution*, implementation of the Project would result in a cumulatively-considerable impact if the Project's construction and/or operational activities exceed one or more of the SCAQMD's "Regional Thresholds" for criteria pollutant emissions, as summarized in Table 4.2-4, *Maximum Daily Regional Emissions Thresholds*.

Table 4.2-4 Maximum Daily Regional Emissions Thresholds

Pollutant	Regional Construction Threshold	Regional Operational Thresholds
NO_X	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_X	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Pb	3 lbs/day	3 lbs/day

lbs/day = Pounds Per Day
Source: (Urban Crossroads, 2023a, Table 3-1)

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

- The Project's localized criteria pollutant emissions would exceed one or more of the "Localized Thresholds" listed in Table 4.2-5, *Maximum Daily Localized Construction Emissions Thresholds*.
- The Project would cause or contribute to a CO "Hot Spot;" and/or

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

Table 4.2-5 Maximum Daily Localized Construction Emissions Thresholds

Construction Activity	Construction Localized Thresholds			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Demolition/Crushing	81 lbs/day	402 lbs/day	5 lbs/day	lbs/day
Site Preparation	103 lbs/day	522 lbs/day	7 lbs/day	lbs/day
Grading	125 lbs/day	642 lbs/day	9 lbs/day	lbs/day

Localized Thresholds presented in this table are based on the SCAQMD Final LST Methodology, July 2008
Source: (Urban Crossroads, 2023a, Table 3-8)

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

4.2.5 Impact Analysis

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

The SCAQMD *2016 AQMP*, which is the applicable air quality plan for the Project area at the time this EIR was prepared, addresses long-term air quality conditions for the SCAB. The criteria for determining consistency with the *2016 AQMP* are analyzed below.

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

Consistency Criterion No. 1 refers to violations of the NAAQS and CAAQS. Violations of the NAAQS and/or CAAQS would occur if the emissions resulting from the Project were to exceed the SCAQMD's localized emissions thresholds. As a conservative measure, the Project's regional emissions of VOC, NO_X, PM_{10}, and $PM_{2.5}$ also are considered in this consistency determination because if the Project's emissions of any of these pollutants would exceed the applicable SCAQMD regional thresholds, then these emissions could delay the SCAB's attainment of federal and/or State ozone or particulate matter standards. As disclosed under the analysis for Threshold "c," below, Project-related activities would not exceed SCAQMD localized emissions thresholds during construction and, thus, would not directly cause new violations of the NAAQS and/or CAAQS. In addition, as disclosed under the analysis for Threshold "b," below, operation of the Project would not result in emissions of any criteria pollutant in excess of the applicable SCAQMD regional threshold and, therefore, would not result in a long-term increase in the frequency or severity of existing air quality violations in the SCAB. Based on the foregoing information, the Project would not conflict with Consistency Criterion No. 1.

- *Consistency Criterion No. 2: The Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase.*

The growth forecasts used in the *AQMP* to calculate future regional emissions levels are based on land use planning data provided by lead agencies via their general plan documentation. Development projects that increase the intensity of use on a specific property beyond the respective general plan's vision may result in increased stationary area source emissions and/or vehicle source emissions when compared to the *AQMP* assumptions. However, if a project does not exceed the growth projections in the applicable local general plan, then the project is considered to be consistent with the growth assumptions in the *AQMP*. The prevailing planning document for the Project Site is the City's General Plan. Under existing conditions, Project Site is designated for "Office/Financial" land use and has a zoning designation of "Administrative and Professional Office (C-P)" with a "Precise Development (P-D)" overlay. The Project Applicant proposes to change the General Plan land use designation to "Mixed Use III" and the zoning designation to "Mixed Use III." Although the Project is not consistent with the current General Plan land use designation for the property, the proposed Project entails redevelopment of 0.95 acres of the Project Site with buildings having a floor area ratio (FAR) that is less than what occurs on the Site under existing conditions. The Site is currently developed with two 2,799 s.f. office buildings, a 3,166 s.f. office building, and a two-story office/commercial building that contains 10,109 s.f. of floor space, which together total 18,873 s.f. The Project Applicant proposes to demolish the four existing buildings and redevelop this portion of the Project Site with a 6,000 s.f. commercial building and an approximate 2,000 s.f. drive-through restaurant, which together total approximately 8,000 s.f. Thus, the Project would reduce building space on the Site by approximately 10,873 s.f. Due to the reduction in building space and a lower FAR across the Site, the Project would not result in an exceedance of the AQMP's growth projection. Accordingly, the Project would not conflict with Consistency Criterion No. 2.

Conclusion

For the reasons stated above, the Project would not result in a substantial adverse environmental impact due to an increase in the frequency or severity of existing air quality violations, the creation of new violations, the delay the timely attainment of air quality standards, or the interim emissions reductions specified in the *AQMP*. The Project is consistent with growth projections relied upon by the *AQMP* because although the Project entails a General Plan Amendment, the Project would result in less building space on the Site and a lower FAR than occurs in the existing condition.

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

The SCAB has a "non-attainment" designation for ozone (1- and 8-hour) and particulate matter ($PM_{2.5}$ and PM_{10}) under existing conditions; thus, any direct emissions of these pollutants or their precursors that exceed applicable SCAQMD significance thresholds would be considered significant.

A. Construction Emissions Impact Analysis

Overall emissions from Project construction activities are summarized in Table 4.2-6, *Overall Construction Emissions Summary*. Detailed air model outputs for the Project are presented in Appendix 3.1 of the Project's

AQIA (*Technical Appendix B*). As shown in Table 4.2-6, construction-related emissions of VOCs, NO_X, CO, SO_X, and particulate matter (PM_{10} and $PM_{2.5}$) would not exceed the applicable SCAQMD regional thresholds. Accordingly, the Project's construction activities would not emit substantial concentrations of these pollutants and would not contribute to an existing or projected air quality violation on a cumulatively considerable basis. Project construction impacts related to emissions of VOCs, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ would all be less than significant.

Table 4.2-6 Overall Construction Emissions Summary

Year	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer (Smog Season)						
2024	2.20	8.05	9.28	0.02	0.48	0.34
Winter						
2024	1.80	16.70	15.10	0.03	2.96	1.73
Maximum Daily Emissions	**2.20**	**16.70**	**15.10**	**0.03**	**2.96**	**1.73**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Source: (Urban Crossroads, 2023a, Table 3-4)

C. Operational Emissions Impact Analysis

The Project's calculated peak operational-source emissions are summarized on Table 4.2-7, *Operational Emissions Summary*. The air model outputs for the operational analysis are provided in Appendix 3.1 of the Project's AQIA (*Technical Appendix B*). As summarized in Table 4.2-7, Project-related operational emissions of VOCs, NO_X, CO, SO_X, PM_{10} and $PM_{2.5}$ would not exceed SCAQMD regional criteria thresholds, even without taking into account elimination of the existing uses on the Site that would be demolished. Accordingly, the Project would not emit substantial concentrations of these pollutants during long-term operation and would not contribute to an existing or projected air quality violation. The Project's long-term emissions of VOCs, NO_X, CO, SO_X, PM_{10} and $PM_{2.5}$ would be less than significant.

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

The Project has the potential to result in the exposure of sensitive receptors to substantial pollutant concentrations during construction because diesel-fueled vehicles would be present on the Site during the Project's construction. The following analysis also addresses the potential for Project-related activities to exceed applicable LSTs for criteria pollutant emissions; cause or contribute to CO "hot spots," and result in cancer risks and non-cancer health hazards to nearby sensitive receptors.

Table 4.2-7 Operational Emissions Summary

Source	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer (Smog Season)						
Mobile Source	6.05	4.65	51.60	0.13	4.54	0.86
Area Source	0.24	< 0.005	0.35	< 0.005	< 0.005	< 0.005
Energy Source	0.01	0.14	0.12	< 0.005	0.01	0.01
Project Maximum Daily Emissions	**6.30**	**4.79**	**52.07**	**0.13**	**4.55**	**0.87**
Existing Emissions	1.75	0.94	13.19	0.03	0.94	0.18
Total Maximum Daily Emissions	**4.55**	**3.85**	**38.88**	**0.10**	**3.61**	**0.69**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
Winter						
Mobile Source	5.98	5.06	48.00	0.12	4.54	0.86
Area Source	0.19	0.00	0.00	0.00	0.00	0.00
Energy Source	0.01	0.14	0.12	< 0.005	0.01	0.01
Project Maximum Daily Emissions	**6.18**	**5.20**	**48.12**	**0.12**	**4.55**	**0.87**
Existing Emissions	1.63	1.03	11.59	0.02	0.94	0.18
Total Maximum Daily Emissions	**4.55**	**4.17**	**36.53**	**0.10**	**3.61**	**0.69**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Source: (Urban Crossroads, 2023a, Table 3-6)

During long-term operation of the Project, there is no reasonable circumstance in which the on-site uses proposed would have the potential to emit substantial air pollutant concentrations. A 6,000 s.f. commercial building with a 2,400 s.f. sit-down restaurant and 3,600 s.f. of retail or medical office uses and a 2,000 s.f. drive-through restaurant are not the types of uses known for emitting operational pollutants. The Project's design is required to include all applicable mandatory components associated with the proposed uses that pertain to the reduction of air pollutants. Such measures include but are not limited to the installation of required exhaust components related to any food production uses (restaurant). The Project does not include any specific project design features related to air quality other than those required by federal, State, and/or local regulations.

A. Localized Criteria Pollutant Analysis

Table 4.2-8, *Localized Significance Summary of Construction (Without Mitigation)*, presents the localized air pollutant concentrations at the sensitive receptor locations in the vicinity of the Project Site with highest

exposure to Project construction activities. Detailed construction model outputs are presented in Appendix 3.1 of the Project's AQIA (*Technical Appendix B*). As shown in Table 4.2-8, localized emissions from Project construction would not exceed the applicable SCAQMD thresholds for any criteria pollutant and impacts would be less than significant.

Table 4.2-8 Localized Significance Summary of Construction (Without Mitigation)

Construction Activity	Year	Emissions (lbs/day)			
		NO_X	CO	PM_{10}	$PM_{2.5}$
Demolition/Crushing	2024	14.40	14.10	1.61	0.72
	Maximum Daily Emissions	**14.40**	**14.10**	**1.61**	**0.72**
	SCAQMD Localized Threshold	81	402	5	3
	Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**
Site Preparation	2024	6.24	6.16	0.68	0.40
	Maximum Daily Emissions	**6.24**	**6.16**	**0.68**	**0.40**
	SCAQMD Localized Threshold	103	522	7	3
	Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**
Grading	2024	16.60	14.60	2.85	1.71
	Maximum Daily Emissions	**16.60**	**14.60**	**2.85**	**1.71**
	SCAQMD Localized Threshold	125	642	9	4
	Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**

Source: (Urban Crossroads, 2023a, Table 3-9)

B. CO Hot Spot Impact Analysis

A CO "hot spot" is an isolated geographic area where localized concentrations of CO exceed the CAAQS one-hour (20 parts per million) or eight-hour (9 parts per million) standards. A Project-specific CO "hot spot" analysis was not performed for the Project because CO attainment in the SCAB was thoroughly analyzed as part of SCAQMD's *2003 AQMP* and the *1992 Federal Attainment for Carbon Monoxide Plan* (*1992 CO Plan*). The *2003 AQMP* and the *1992 CO Plan* found that peak CO concentrations in the SCAB were the byproduct of unusual meteorological and topographical conditions and were not the result of traffic congestion. For context, the CO "hot spot" analysis performed for the *2003 AQMP* recorded a CO concentration of 9.3 parts per million (8-hour) at the Long Beach Boulevard/Imperial Highway intersection in Los Angeles County; however, only a small portion of the recorded CO concentrations (0.7 parts per million) were attributable to traffic congestion at the intersection. The vast majority of the recorded CO concentrations at the Long Beach Boulevard/Imperial Highway intersection (8.6 parts per million) were attributable to unique local meteorological conditions that resulted in elevated ambient air concentrations. In comparison, the busiest intersections in the Project Site vicinity would neither experience peak congestion levels or ambient CO concentrations comparable to the conditions observed at the Long Beach Boulevard/Imperial Highway intersection nor feature atypical meteorological conditions. Further, data from other air pollution control districts in the State indicate that under existing and future vehicle emission rates, an individual development project would have to increase traffic volumes at a single intersection by between 24,000 and 44,000 vehicles per hour in order to generate a significant CO impact; the Project would generate nowhere near this volume of

traffic. The Project is expected to generate approximately 510 more vehicle trips than are being generated by the uses at the Project Site under existing conditions (Urban Crossroads, 2023e). Based on the relatively low local traffic congestion levels, low existing ambient CO concentrations, and the lack of any unusual meteorological and/or topographical conditions in the Project Site vicinity, the Project is not expected to cause or contribute to a CO "hot spot." Impacts would be less than significant. (Urban Crossroads, 2023a, pp. 37-39)

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

During construction activities on the Project Site, odors could be produced by construction equipment exhaust or from the application of asphalt and/or architectural coatings. However, standard construction practices would minimize the odor emissions and their associated impacts. Furthermore, any odors emitted during construction would be temporary, short-term, and intermittent in nature, and would cease upon the completion of the respective phase of construction. In addition, construction activities on the Project Site would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance. Accordingly, the Project's construction would not create objectionable odors affecting a substantial number of people and all impacts would be less than significant. (Urban Crossroads, 2023a, p. 42)

During long-term operation, Project would include commercial/office and restaurant uses, which are not typically associated with the emission of objectionable odors. The Project's design is required to include all applicable mandatory components associated with the proposed uses that pertain to the reduction of odor. Such measures include but are not limited to the installation of required exhaust components related to any food production uses (restaurant).

Temporary outdoor refuse storage could be a potential source of odor; however, Project-generated refuse is required to be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations, thereby precluding any significant odor impact. Furthermore, the occupant(s) of the proposed commercial/office, and restaurant buildings would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance, during long-term operation. As such, long-term operation of the Project would not create objectionable odors affecting a substantial number of people and all impacts would be less than significant. (Urban Crossroads, 2023a, p. 42)

4.2.6 Cumulative Impact Analysis

The *AQMP* evaluates regional conditions within the SCAB and sets regional emission significance thresholds for both construction and operation of development projects that apply to project-specific impacts and cumulatively-considerable impacts. Thus, if a project exceeds the SCAQMD regional emissions thresholds, project-specific impacts would also result in a cumulatively-considerable increase in emissions for those pollutants for which the basin in is non-attainment. As described under the analysis for Threshold "a," Project implementation would not conflict with the SCAQMD's *2016 AQMP* because although the Project entails a General Plan Amendment, the Project would result in less building square footage and a lower FAR across the Site than occurs in the existing condition. As such, the Project would not exceed the growth projections relied upon in the *AQMP*. As such, the Project would result in a less than significant cumulatively-considerable

impact when considered in context with other projects across the Air Basin that also entail amendments to local jurisdiction General Plans.

Based on SCAQMD guidance, any exceedance of a regional or localized threshold for criteria pollutants also is considered to be a cumulatively-considerable effect, while air pollutant emissions that fall below applicable regional and/or localized thresholds are not considered cumulatively-considerable. As discussed in the analysis under Thresholds "b" and "c" the Project would not emit any air pollutants during construction or operation that exceed the applicable SCAQMD regional or localized threshold and, thus, the Project would result in effects to regional and local air quality that would not be cumulatively considerable.

As indicated in the analysis of Threshold "d," above, there are no Project components that would expose a substantial number of sensitive receptors to objectionable odors. There are no known sources of offensive odors in the Project area. Because the Project's construction and operation would not create substantial and objectionable odors and because there are no sources of objectionable odors in the areas immediately surrounding the Project Site, there is no potential for odors from the Project Site to commingle with odors from nearby development projects and expose nearby sensitive receptors to substantial, offensive odors. Accordingly, implementation of the Project would result in a less than significant cumulative impact related to odors.

4.2.7 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The Project would not conflict with the SCAQMD AQMP and would not exceed growth projections relied upon by the AQMP.

Threshold b: Less-than-Significant Impact. Project construction and operational activities would not exceed the applicable SCAQMD regional threshold for any criteria pollutant. Thus, the Project would not contribute cumulatively considerable volumes of any air pollutant for which the SCAB does not attain federal or State air quality standards.

Threshold c: Less-than-Significant Impact. Implementation of the Project would not: 1) exceed applicable SCAQMD localized criteria pollution emissions thresholds during construction and 2) would not cause or contribute to the formation of a CO "hot spot."

Threshold d: Less-than-Significant Impact. The Project would not produce air emissions that would lead to unusual or substantial construction-related or operational-related odors. The Project is required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance.

4.2.8 Mitigation

Air quality impacts would be less than significant; therefore, mitigation measures are not required.

4.3 BIOLOGICAL RESOURCES

This Subsection evaluates the potential for Project-related activities to impact sensitive biological resources on or adjacent to the Project Site. The biological resources assessment included the review of existing site conditions, relevant literature, and a geographic information system (GIS)-based analysis of vegetation communities. All references used in this Subsection are listed in EIR Section 7.0, *References*.

4.3.1 EXISTING CONDITIONS

A. Vegetation Communities

The Project Site is fully developed with six commercial/office buildings and paved parking lots. Vegetation on the Project Site is limited to landscaping of ornamental trees, shrubs, and grasses. Because the Project Site is fully developed, no natural vegetation communities are present on the Project Site.

B. Special-Status Plant and Wildlife Species

The Project Site is fully developed and located within a developed urban area. Because the Project Site is fully developed with no natural vegetation communities, no special status plant or wildlife species are known to exist on the Project Site.

C. Nesting Birds

The Project Site contains ornamental trees and shrubs that could be used for nesting or roosting by a variety of native and/or migratory birds.

D. Riparian/Riverine and Vernal Pool Resources

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

4.3.2 REGULATORY SETTING

A. Federal Plans, Policies, and Regulations

1. Endangered Species Act (ESA)

The purpose of the federal Endangered Species Act (ESA) is to protect and recover imperiled species and the ecosystems upon which they depend. The federal ESA is administered by the U.S. Fish and Wildlife Service (USFWS) and the Commerce Department's National Marine Fisheries Service (NMFS). The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine wildlife. Under the federal ESA, species may be listed as either endangered or threatened. "Endangered" means a species is in danger of extinction throughout all or a significant portion of its range. "Threatened" means a species is likely to become endangered within the foreseeable future. All species of plants and animals, except pest insects, are eligible for listing as endangered or threatened. (USFWS, 2017)

The federal ESA makes it unlawful for a person to take a listed animal without a permit. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." Through regulations, the term "harm" is defined as "an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." Listed plants are not protected from take, although it is illegal to collect or maliciously harm them on federal land. Protection from commercial trade and the effects of federal actions do apply for plants. (USFWS, 2017)

Section 7 of the federal ESA requires federal agencies to use their legal authorities to promote the conservation purposes of the ESA and to consult with the USFWS and NMFS, as appropriate, to ensure that effects of actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of listed species. During consultation, the "action" agency receives a "biological opinion" or concurrence letter addressing the proposed action. In the relatively few cases in which the USFWS or NMFS makes a jeopardy determination, the agency offers "reasonable and prudent alternatives" about how the proposed action could be modified to avoid jeopardy. It is extremely rare that a project ends up being withdrawn or terminated because of jeopardy to a listed species. (USFWS, 2017)

Section 10 of the ESA may be used by landowners including private citizens, corporations, tribes, states, and counties who want to develop property inhabited by listed species. Landowners may receive a permit to take such species incidental to otherwise legal activities, provided they have developed an approved habitat conservation plan (HCP). HCPs include an assessment of the likely impacts on the species from the proposed action, the steps that the permit holder will take to avoid, minimize, and mitigate the impacts, and the funding available to carry out the steps. HCPs may benefit not only landowners but also species by securing and managing important habitat and by addressing economic development with a focus on species conservation. (USFWS, 2017)

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

The Migratory Bird Treaty Act (MBTA) makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to federal regulations. The migratory bird species protected by the MBTA are listed in 50 CFR 10.13. The USFWS has statutory authority and responsibility for enforcing the MBTA (16 U.S.C. 703-712). The MBTA implements Conventions between the United States and four countries (Canada, Mexico, Japan, and Russia) for the protection of migratory birds. (USFWS, 2020)

B. State Plans, Policies, and Regulations

1. California Endangered Species Act (CESA)

The California Endangered Species Act (CESA) states that all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected or preserved. The California Department of Fish and Wildlife (CDFW) works with interested

persons, agencies, and organizations to protect and preserve such sensitive resources and their habitats. CESA prohibits the take of any species of wildlife designated by the California Fish and Game Commission as endangered, threatened, or candidate species. CDFW may authorize the take of any such species if certain conditions are met. (CDFW, n.d.)

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

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

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

2. Natural Community Conservation Planning Act (NCCP)

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

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

There are currently 14 approved NCCPs (includes 6 subarea plans) and more than 20 NCCPs in the active planning phase (includes 10 subarea plans), which together cover more than 7 million acres and will provide conservation for nearly 400 special status species and a wide diversity of natural community types throughout California. (CDFW, n.d.)

3. Native Plant Protection Act (NPPA) of 1977

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

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

Section 3503.5 of the CFGC specifically protects birds of prey, stating: "It is unlawful to take, possess, or destroy any . . . [birds-of-prey] or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Section 3513 of the CFGC duplicates the federal protection of migratory birds, stating: "It is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act." (CA Legislative Info, n.d.)

C. Local Plans, Policies, and Regulations

1. Brea City Code

The City's Zoning Code Section 20.206.160, *Landscape Standards*, provides requirements for tree removal and replacement. For every native tree or shrub removed or damaged with a combined caliper equal to or greater than four inches at four feet above finish grade, a 24-inch box minimum replacement tree or shrub of the same genus and species is required to be planted on the site. For trees equal to or in excess of an eight-inch combined caliper, the replacement tree is required to be a 48-inch box or larger of the same genus and species. Should a tree of the same genus and species not be available, the applicant is required submit reasonable proof of general unavailability in the region, and a list of no less than five substitutes, one of which shall be of the same genus, for approval by the City's Director of Development Services. (Brea, 2022a)

4.3.3 Methodology for Evaluating Biological Resources Impacts

The biological resources impacts are based on literature review, including a review of the California Natural Diversity Data Base (CNDDB), historical and current aerial photographs, USGS topographic maps, U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey maps, the National Hydrography Dataset, and the National Wetlands Inventory.

4.3.4 Basis for Determining Significance

Section IV of Appendix G to the CEQA Guidelines addresses typical adverse effects to biological resources, and includes the following threshold questions to evaluate the Project's impacts to biological resources:

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

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service;

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

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

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

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

4.3.5 Impact Analysis

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

Under existing conditions, the Project Site is fully developed with six commercial/office buildings, surface parking, ornamental landscaping, and associated improvements. The surrounding area is also fully developed with urban uses. Because the Project Site is fully developed under existing conditions, no candidate, sensitive, special status species, riparian habitat, other sensitive natural community, or federally protected wetlands occur on the site. Vegetation on the Project Site is limited to landscaping of ornamental trees, shrubs, and grasses. Because no candidate, sensitive, special status species, riparian habitat, other sensitive natural community, or federally protected wetlands occur on the Project Site, there is no potential for redevelopment of the Site as proposed to result in substantial adverse effects to sensitive biological resources recognized by the California Department of Fish and Wildlife (CDFW) or the United States Fish and Wildlife Services (USFWS). No impact would occur.

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

The Project Site is developed with six commercial/office buildings and associated parking lots in a highly urbanized area. With the exception of ornamental landscaping, the entire Project Site is paved or covered with existing buildings. Vegetation on the site is limited to landscaping of ornamental trees, shrubs, and grasses. As indicated in the City of Brea General Plan, the Chino Hills State Park contains riparian areas approximately

10 miles to the east. Due to the existing development on the Project Site and intervening development between any riparian or sensitive natural communities, no impacts would occur.

Threshold c: ***Would the Project have 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?***

The Project Site is developed with six commercial/office buildings and associated parking lots in a highly urbanized area. With the exception of ornamental landscaping, the entire Project Site is paved or covered with existing buildings. There are no wetlands on the Project site. No impact would occur.

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

The Project Site is located in a highly urbanized area and is not within any wildlife movement corridor. Because the Project Site and surrounding area are fully developed with urban uses, redevelopment of the Project Site as proposed has no potential to interfere substantially with the ground movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites. The Project Site contains ornamental trees that could serve as nesting habitat, that would be removed as part of the Project. If any migratory nesting birds are observed in any trees on or near the Site during the Project's construction activities, the birds and their active nests would be protected pursuant to the federal Migratory Bird Treaty Act (MBTA), a federal law that prohibits impacts to migratory birds.

If active nests are present in vegetation that is to be removed during Project construction (direct impacts) or within 250 feet of construction activities (indirect impacts), implementation of the Project could result in substantial, adverse effects to biological resources (i.e., bird nests) that are protected by the MBTA and California Fish and Game Code. However, compliance with the federal MBTA is a mandatory regulatory requirement that ensures the protection of migratory birds and compliance with mandatory regulatory requirements is not required under CEQA to be repeated as mitigation. The Project's potential to impact nesting birds would be less than significant with mandatory compliance with the federal MBTA. Nonetheless, a mitigation measure is recommended herein to ensure that the federal MBTA is complied with during Project-related construction activities.

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

The Project Site is fully developed and does not contain any biological resources including trees that are protected by a local policy or ordinance. As such, no impact would occur.

As part of the Project's construction, 12 trees located on the Site and one palm tree in the South Flower Avenue right-of-way would be removed. The Project's proposed conceptual landscaping plan calls for the planting of 12 new 36-inch box Golden Rain trees (*koelreuteria paniculate*) and 15 new 24-inch box Catawba Crape

Myrtle trees (*lagerstroemia indica 'catawba'),* for a total of 27 new trees. The Project's landscaping would occur in full compliance with the City's Zoning Code Section 20.206.160, *Landscape Standards*.

Threshold f:	***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?***

There is no adopted HCP or NCCP applicable to the Project site. Additionally, because the Project Site is fully developed under existing conditions, redevelopment of the Site as proposed would have no potential to conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan.

4.3.6 Cumulative Impact Analysis

This cumulative impact analysis for biological resources considers development of the Project in conjunction with other development projects in the vicinity of the Project Site as well as full General Plan buildout of the City of Brea and surrounding cities of La Habra, La Mirada, Fullerton, Placentia and Yorba Linda.

The Project Site does not contain any special-status plant or wildlife species nor does the Site have the potential to support such species. Therefore, the Project would not impact any special-status plant or wildlife species and, thus, the Project would have no potential to contribute to a cumulative impact to special-status plant and/or animal species.

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

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

The Project would remove ornamental trees on the property that have the potential to support nesting birds protected by the federal MBTA. A wide range of habitat and vegetation types have the potential to support nesting birds; therefore, it is likely that other development projects within the cumulative study area also may impact nesting birds. However, compliance with the federal MBTA is a mandatory regulatory requirement and compliance is required by federal law. Thus, any cumulative effects to nesting birds would be less than significant through mandatory compliance with the MBTA.

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

The Project Site is not located within the boundaries of any adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan. Because there is no conservation plan applicable to the Project Site, there is no potential for the Project to make a cumulatively-considerable impact to local, regional, or State habitat conservation plans.

4.3.7 Significance of Impacts Before Mitigation

Threshold a: No Impact. The Project Site does not contain or support any special-status plant or wildlife species. As such, implementation of the proposed Project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service, and no impact would occur.

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

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

Threshold d: Less-than-Significant Impact. There is no potential for the Project to interfere with the movement of fish or impede the use of a native wildlife nursery site. Although the Project has the potential to impact nesting migratory birds protected by the federal MBTA and California Fish and Game Code should habitat removal occur during the nesting season, compliance with the federal MBTA is mandatory and the compliance with which would reduce impacts to less than significant.

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

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

4.3.8 Mitigation

Although the Project's potential for impacts to nesting birds would be less-than-significant with mandatory compliance to the federal MBTA, the following mitigation measure is recommended to assist in the assurance for MBTA compliance.

MM 4.3-1 If tree removals or construction commences between February 1 and August 31, within three days of tree removal or mobilizing construction equipment to the project site, all on-site trees and trees within 250 feet of the project site shall be inspected by a qualified biologist for the presence of migratory nesting birds. If the survey reveals no active nesting, construction may proceed. If the survey identifies the presence of active sensitive migratory bird nests, then the

nests shall not be disturbed unless the qualified biologist verifies through non-invasive methods that either (i) the adult birds have not begun egg-laying and incubation; or (ii) the juveniles from the occupied nests are capable of independent survival. If the biologist is not able to verify these conditions, then no tree removals or construction that would be disruptive to the nest as determined by the biologist shall occur until the biologist with City concurrence verifies that the nest(s) is no longer occupied and/or juvenile birds can survive independently from the nests.

4.3.9 Significance of Impacts After Mitigation

Threshold d: Less-than-Significant Impact. Implementation of Mitigation Measure MM 4.3-1 would ensure that pre-construction surveys are conducted for nesting birds protected by the federal MBTA during the breeding season to determine presence or absence prior to disturbance of habitat with the potential to support nesting birds. If nesting birds are present, the mitigation requires compliance with the federal MBTA in the form of avoidance of active bird nests in conformance with accepted protocols and regulatory requirements. With implementation of the required mitigation, potential direct, indirect, and cumulatively-considerable impacts to nesting birds protected by the federal MBTA would be reduced to below a level of significance.

4.4 CULTURAL RESOURCES

The Subsection evaluates the potential for Project-related activities to impact sensitive cultural resources located on or beneath the Project Site. The cultural resources assessment included a cultural resources records search of the Project Site and a half-mile radius around the Project Site. The records search is confidential and not included as part of this EIR, but it is on file at the City of Brea (SCCIC, 2022). Under existing law, environmental documents must not include information about the location of archeological sites or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records Act (Cal. Code Regs. Section 15120(d)).

4.4.1 EXISTING CONDITIONS

The Project Site is fully developed with six commercial/office buildings. As the Project Site is developed and currently an actively-used commercial/office property, hardscape, landscaping, and commercial/office buildings cover the entire Project Site. As such, there is no reasonable potential for archaeological resources to exist on the surface of the property. The existing buildings were constructed in the 1990s, and due to their modern age have no reasonable potential to be considered historic resources.

An archaeological records search was conducted through the South Central Coastal Information Center (SCCIC) at California State University (CSU), Fullerton. The records search provided information regarding previous archaeological studies in the Project area and any previously recorded sites within a half-mile radius of the Project Site. The results of this records search indicate that no archaeological resources have been recorded on the Project Site or within a half-mile radius of the Site. The records search also included a review of historical records databases to identify the presence or absence of historical resources on the Project Site. No historical resources were identified on the Project Site.

4.4.2 APPLICABLE ENVIRONMENTAL REGULATIONS

A. Federal Regulations

1. National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA) was passed primarily to acknowledge the importance of protecting United States heritage. While Congress recognized that national goals for historic preservation could best be achieved by supporting the drive, enthusiasm, and wishes of local citizens and communities, it understood that the federal government must set an example through enlightened policies and practices. In the words of the Act, the federal government's role would be to "provide leadership" for preservation, "contribute to" and "give maximum encouragement" to preservation, and "foster conditions under which our modern society and our prehistoric and historic resources can exist in productive harmony." (NPS, 2022a)

NHPA and related legislation sought a partnership among the federal government and the states that would capitalize on the strengths of each. The federal government, led by the National Park Service (NPS) provides funding assistance; basic technical knowledge and tools; and a broad national perspective on America's heritage. The states, through State Historic Preservation Officers (SHPOs) appointed by the governor of each

state, would provide matching funds, a designated state office, and a statewide preservation program tailored to state and local needs and designed to support and promote state and local historic preservation interests and priorities. (NPS, 2022a)

An Advisory Council on Historic Preservation (ACHP), the first and only federal entity created solely to address historic preservation issues, was established as a cabinet-level body of Presidentially-appointed citizens, experts in the field, and federal, state, and local government representatives, to ensure that private citizens, local communities, and other concerned parties would have a forum for influencing federal policy, programs, and decisions as they impacted historic properties and their attendant values. (NPS, 2022a)

Section 106 of NHPA granted legal status to historic preservation in federal planning, decision-making, and project execution. Section 106 requires all federal agencies to take into account the effects of their actions on historic properties, and provide ACHP with a reasonable opportunity to comment on those actions and the manner in which federal agencies are taking historic properties into account in their decisions. (NPS, 2022a)

A number of additional executive and legislative actions have been directed toward improving the ways in which all federal agencies manage historic properties and consider historic and cultural values in their planning and assistance. Executive Order 11593 (1971) and, later, Section 110 of NHPA (1980, amended 1992), provided the broadest of these mandates, giving federal agencies clear direction to identify and consider historic properties in federal and federally assisted actions. The National Historic Preservation Amendments of 1992 further clarified Section 110 and directed federal agencies to establish preservation programs commensurate with their missions and the effects of their authorized programs on historic properties. (NPS, 2022a)

2. National Register of Historic Places (NRHP)

The National Register of Historic Places is the official list of the Nation's historic places worthy of preservation. Authorized by the NHPA of 1966, the NPS's National Register of Historic Places (NRHP) is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archaeological resources. (NPS, 2022b)

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

- Age and Integrity. Is the property old enough to be considered historic (generally at least 50 years old) and does it still look much the way it did in the past?

- Significance. Is the property associated with events, activities, or developments that were important in the past? With the lives of people who were important in the past? With significant architectural history, landscape history, or engineering achievements? Does it have the potential to yield information through archaeological investigation about our past? (NPS, 2022b)

Nominations can be submitted to a SHPO from property owners, historical societies, preservation organizations, governmental agencies, and other individuals or groups. The SHPO notifies affected property owners and local governments and solicits public comment. If the owner (or a majority of owners for a district nomination) objects, the property cannot be listed but may be forwarded to the NPS for a Determination of Eligibility (DOE). Listing in the NRHP provides formal recognition of a property's historical, architectural, or archaeological significance based on national standards used by every state. (NPS, 2022b)

Under Federal Law, the listing of a property in the National Register places no restrictions on what a non-federal owner may do with their property up to and including destruction, unless the property is involved in a project that receives Federal assistance, usually funding or licensing/permitting. National Register listing does not lead to public acquisition or require public access. (NPS, 2022b)

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

The Native American Graves Protection and Repatriation Act (NAGPRA; Public Law 101-601; 25 U.S.C. 3001-3013) describes the rights of Native American lineal descendants, Indian tribes, and Native Hawaiian organizations with respect to the treatment, repatriation, and disposition of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony, referred to collectively in the statute as cultural items, with which they can show a relationship of lineal descent or cultural affiliation. (NPS, 2022c)

One major purpose of this statute is to require that federal agencies and museums receiving Federal funds inventory holdings of Native American human remains and funerary objects and provide written summaries of other cultural items. The agencies and museums must consult with Indian Tribes and Native Hawaiian organizations to attempt to reach agreements on the repatriation or other disposition of these remains and objects. Once lineal descent or cultural affiliation has been established, and in some cases the right of possession also has been demonstrated, lineal descendants, affiliated Indian Tribes, or affiliated Native Hawaiian organizations normally make the final determination about the disposition of cultural items. Disposition may take many forms from reburial to long term curation, according to the wishes of the lineal descendent(s) or culturally affiliated Tribe(s). (NPS, 2022c)

The second major purpose of the statute is to provide greater protection for Native American burial sites and more careful control over the removal of Native American human remains, funerary objects, sacred objects, and items of cultural patrimony on Federal and tribal lands. NAGPRA requires that Indian tribes or Native Hawaiian organizations be consulted whenever archaeological investigations encounter, or are expected to encounter, Native American cultural items or when such items are unexpectedly discovered on Federal or tribal lands. Excavation or removal of any such items also must be done under procedures required by the Archaeological Resources Protection Act. This NAGPRA requirement is likely to encourage the in-situ preservation of archaeological sites, or at least the portions of them that contain burials or other kinds of cultural items. (NPS, 2022c)

Other provisions of NAGPRA: (1) stipulate that illegal trafficking in human remains and cultural items may result in criminal penalties; (2) authorizes the Secretary of the Interior to administer a grants program to assist

museums and Indian Tribes in complying with certain requirements of the statute; (3) requires the Secretary of the Interior to establish a Review Committee to provide advice and assistance in carrying out key provisions of the statute; authorizes the Secretary of the Interior to penalize museums that fail to comply with the statute; and, (5) directs the Secretary to develop regulations in consultation with this Review Committee. (NPS, 2022c)

B. State Regulations

1. California Administrative Code, Title 14, Section 4308

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

2. California Code of Regulations Title 14, Section 1427

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

3. California Register of Historic Resources

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

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

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

For resources included on the Register of Historic Resources, environmental review may be required under CEQA if property is threatened by a project. Additionally, local building inspectors must grant code alternatives provided under State Historical Building Code. Further, the local assessor may enter into contract

with property owner for property tax reduction pursuant to the Mills Act. A property owner also may place his or her own plaque or marker at the site of the resource. (OHP, n.d.)

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

4. Traditional Tribal Cultural Places Act (SB 18)

Senate Bill 18 (SB 18) requires local (city and county) governments to consult with California Native American tribes to aid in the protection of traditional tribal cultural places ("cultural places") through local land use planning. The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places. (OPR, 2005) The consultation and notice requirements apply to adoption and amendment of general plans (defined in Government Code § 65300 et seq.) and specific plans (defined in Government Code § 65450 et seq.). More information about SB 18 is found in Subsection 4.18, *Tribal Cultural Resources.*

5. Assembly Bill 52 (AB 52)

California Assembly Bill 52 (AB 52) (2014) Chapter 532 amended Section 5097.94 of, and added Sections 21073, 21074, 21080.3.1, 21080.3.2, 21802.3, 21083.09, 21084.2 and 21084.3 to the California Public Resources Code, relating to Native Americans. AB 52 was approved on September 25, 2014. By including tribal cultural resources early in the CEQA process, the legislature intended to ensure that local and Tribal governments, public agencies, and project proponents would have information available, early in the project planning process, to identify and address potential adverse impacts to tribal cultural resources. By taking this proactive approach, the legislature also intended to reduce the potential for delay and conflicts in the environmental review process (OPR, 2017a). More information about AB 52 is found in Subsection 4.18, *Tribal Cultural Resources.*

6. State Health and Safety Code

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

7. California Code of Regulations Section 15064.5

The California Code of Regulations, Title 14, Chapter 3, § 15064.5 (the State CEQA Guidelines) establishes the procedure for determining the significance of impacts to archaeological and historical resources, as well as classifying the type of resource. Cultural resources are aspects of the environment that require identification and assessment for potential significance. The evaluation of cultural resources under CEQA is based upon the definitions of resources provided in CEQA Guidelines § 15064.5, as follows:

- A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4850 et seq.).
- A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4852) including the following:
    - Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
    - Is associated with the lives of persons important in our past;
    - Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
    - Has yielded, or may be likely to yield, information important in prehistory or history.
- The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

4.4.3 Methodology for Evaluating Cultural Resources Impacts

The analysis of historic and pre/protohistoric archaeological resources is based on a cultural resources records search through SCCIC at CSU Fullerton.

4.4.4 Basis for Determining Significance

Section V of Appendix G to the CEQA Guidelines addresses typical adverse effects to cultural resources, and includes the following threshold questions to evaluate the Project's impacts on cultural resources:

a. *Cause a substantial adverse change in the significance of a historical resource in pursuant to § 15064.5;*

b. *Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5;*

c. *Disturb any human remains, including those interred outside of formal cemeteries.*

4.4.5 Impact Analysis

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

Six commercial/office buildings are located on the Project Site. Of the four buildings that are proposed for demolition on the Project Site, two of the buildings were constructed in 1990 and two were constructed in 1995. No historic structures or features are present on the Project Site. Further, due to past disturbance of the site for the construction of the existing uses, there is no reasonable potential for historic resources to be located beneath the surface of the site and discoverable during Project-related construction activities. Accordingly, implementation of the Project would not result in a substantial adverse change to any historic resources as defined by CEQA Guidelines Section 15064.5. No impact would occur.

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

A records search was conducted through the SCCIC at CSU Fullerton which indicated that no pre/protohistoric cultural resources have been recorded on or within a half-mile radius of the Project Site. Therefore, implementation of the Project would not cause a substantial adverse change in the significance of a known prehistoric archeological resource pursuant to CEQA Guidelines Section 15064.5.

Given the lack of any previously identified pre/protohistoric sites within or near the Project Site and the fact that the Project Site is fully developed and was graded to implement the existing development, there is little potential for any pre/protohistoric resources to be present beneath the site and discoverable as part of the Project's construction activities. However, there is a remote potential that Project-related ground-disturbing construction activities could extend into previously undisturbed soils and encounter potentially significant archaeological resources. If any pre/protohistoric cultural resources are unearthed during Project construction

that meet the definition of a significant archaeological resource pursuant to CEQA Guidelines Section 15064.5 and are disturbed or damaged by Project construction activities, impacts to those pre/protohistoric cultural resources would be potentially significant. Mitigation is thus required in the form of conditions of approval imposed on the Project that set forth the procedures that would be followed should subsurface resources be discovered. As discussed below, with implementation of mitigation, potential direct and cumulatively-considerable impacts would be less than significant.

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

The Project Site is fully developed and does not contain a cemetery and no known formal cemeteries are located within the immediate Site vicinity (Google Earth, 2022). Nevertheless, the remote potential exists that human remains may be unearthed during grading and excavation activities associated with Project construction should Project-related construction activities extend into previously undisturbed soils.

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

4.4.6 Cumulative Impact Analysis

The potential for implementation of modern development on the Project Site to contribute to cumulative impacts to historical resources was analyzed in conjunction with other projects located in areas that were once similarly influenced by the historical context of the City of Brea and surrounding area. The record search indicates the absence of significant historical sites and resources on the Project Site; therefore, implementation of the Project has no potential to contribute towards a significant cumulative impact to historical sites and/or resources.

The potential for construction on the Project site to result in cumulatively-considerable impacts to prehistoric archaeological resources was also analyzed in conjunction with other projects located in the traditional use areas of Native American tribes that are affiliated to the Project Site. Development activities on the Project Site would not impact any known prehistoric archaeological resources and the likelihood of uncovering subsurface prehistoric archaeological resources during Project construction is low due because the Project Site is fully developed and past ground disturbance has occurred on the Project Site. Nonetheless, a remote potential exists for subsurface prehistoric archaeological resource that meet the CCR Section 15064.5 definition of a significant archaeological resource to be discovered beneath the surface of the Project Site – and on other development project sites in the region – during construction activities. Accordingly, the Project has the potential to contribute to a significant cumulative impact to prehistoric archaeological sites and/or resources. Therefore, the Project would result in a cumulatively-considerable impact to prehistoric archaeological resources if such resources are unearthed during Project construction, for which mitigation is required. As discussed below, with implementation of mitigation, cumulatively-considerable impacts would be less than significant.

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

4.4.7 Significance of Impacts Before Mitigation

Threshold a: No Impact. No historic resources, as defined by CEQA Guidelines Section 15064.5, are present on the Project Site and there is no reasonable potential for significant historic resources to be encountered during Project-related construction activities; therefore, no historic resources could be altered or destroyed by construction or operation of the Project.

Threshold b: Potentially Significant Direct and Cumulatively-Considerable Impact. No known prehistoric resources are present on the Project Site and the likelihood of uncovering buried prehistoric resources on the Project Site is low because the Project Site is fully developed and past ground disturbance has occurred on the Project Site. Nonetheless, the remote potential exists for Project-related construction activities to result in a direct and cumulatively-considerable impact to significant subsurface prehistoric archaeological resources should such resources be discovered during Project-related construction activities.

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

4.4.8 Mitigation

The following mitigation measures address the potential for Project construction activities to impact significant archaeological resources that may be discovered during ground-disturbing construction activities. Mitigation Measures MM 4-4-1, MM 4.4-2, MM 4.4-3, and MM 4.4-4 would be applied in the form of conditions of approval imposed on the Project to set forth the procedures that would be followed should subsurface resources be discovered during construction.

MM 4.4-1 Prior to the issuance of a demolition permit or any permit authorizing ground-disturbing construction activities, evidence shall be provided to the City of Brea that the construction contractors have been trained on how to identify potential cultural, tribal cultural, and archaeological resources. Construction personnel in charge of supervising ground-disturbing activities must have received cultural resource awareness training within 60 days of commencing work on the Project Site.

MM 4.4-2 Upon discovery of any suspected cultural, tribal cultural or archaeological resources, construction activities within 100 feet of the find shall pause until the find can be assessed by a Qualified Archaeologist meeting the U.S. Secretary of the Interior Standards for archaeology and a tribal monitor/consultant representing the Gabrieleño Band Of Mission Indians Kitz Nation (if such tribal monitor chooses to participate in monitoring following adequate written notice to the Tribe). If a resource is discovered that the Qualified Archaeologist determines to be significant pursuant to the definition given in CEQA Guidelines Section 15064.5, mitigation shall occur following the guidance given in CEQA Guidelines Section 15126.4(b) and as approved by the City of Brea to reduce impacts to less than significant. Mitigation methods include but are not limited to data recovery, documentation, preservation in place, and removal for laboratory processing and analysis followed by either curation at a non-profit institution or conveyance to a culturally affiliated Native American Tribe. Work may continue on other parts of the construction site while the evaluation takes place.

MM 4.4-3 Archaeological and Native American monitoring and excavation during construction shall be consistent with current professional standards. All feasible care to avoid any unnecessary disturbance, physical modification, or separation of human remains and associated funerary objects shall be taken. Principal personnel shall meet the Secretary of the Interior standards for archaeology and have a minimum of 10 years' experience as a principal investigator working with Native American archaeological sites in southern California. The Qualified Archaeologist shall ensure that all other personnel are appropriately trained and qualified.

4.4.9 Significance of Impacts After Mitigation

Threshold b: Less-than-Significant Impact with Mitigation. Implementation of MM 4.4-1 through MM 4.4-3 which would be imposed as conditions of approval on the Project, would ensure the proper identification and subsequent treatment of any significant archaeological resources that may be encountered during ground-disturbing activities associated with Project construction. With implementation of the required mitigation, the

Project's potential impacts to important archaeological resources would be reduced to less than significant. Cumulatively-considerable impacts would likewise be reduced to less than significant.

4.5 ENERGY

The analysis in this Subsection is primarily based on information contained in a technical report prepared by Urban Crossroads, Inc. titled, "Brea Gaslight Square, Energy Analysis, City of Brea," dated January 23, 2023 (Urban Crossroads, 2023b). The technical report is included as *Technical Appendix C* to this EIR. Refer to Section 7.0, *References*, for a complete list of reference sources used in this Subsection.

4.5.1 EXISTING CONDITIONS

A. Electricity Consumption

The Project Site is located within the service area of Southern California Edison (SCE). SCE provides electricity to a population of more than 15 million within a service area encompassing approximately 50,000 square miles. SCE generates electricity from varied energy resources including: fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers. (Urban Crossroads, 2023b, pp. 9-10)

B. Natural Gas Consumption

The Project Site is located within the service area of the Southern California Gas Company (SoCalGas) which is regulated by the California Public Utilities Commission (CPUC). SoCalGas provides service to approximately 5.9 million customers. Natural gas from out-of-state production basins is delivered into California via the interstate natural gas pipeline system. The gas transported to California via the interstate pipelines, as well as some of the California-produced gas, is delivered into SoCalGas intrastate natural gas transmission pipelines systems (commonly referred to as California's "backbone" pipeline system). Natural gas on the utilities' backbone pipeline system is then delivered to the local transmission and distribution pipeline systems, or to natural gas storage fields. (Urban Crossroads, 2023b, p. 11)

C. Transportation Energy/Fuel Consumption

Gasoline and other vehicle fuels are commercially-provided commodities. The Department of Motor Vehicles (DMV) identified 36.2 million registered vehicles in California, and those vehicles consume an estimated 17.2 billion gallons of fuel each year in 2017, Californians used approximately 15.8 billion gallons of gasoline and in 2019, 3.9 billion gallons of diesel fuel was consumed. (Urban Crossroads, 2023b, pp. 7;14)

4.5.2 REGULATORY SETTING

A. Federal Plans, Policies, and Regulations

1. Intermodal Surface Transportation Efficiency Act (ISTEA)

The ISTEA promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining

the social, economic, energy, and environmental values guiding transportation decisions. (Urban Crossroads, 2023b, p. 17)

2. *The Transportation Equity Act for the 21st Century (TEA-21)*

The TEA-21 was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety. (Urban Crossroads, 2023b, p. 17)

B. State Plans, Policies, and Regulations

1. *Integrated Energy Policy Report*

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (Public Resources Code § 25301[a]). The CEC prepares these assessments and associated policy recommendations every two years, with updates in alternate years, as part of the Integrated Energy Policy Report. The 2021 IEPR was adopted February 22, 2022, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in California. The 2021 IEPR identifies actions the state and others can take to ensure a clean, affordable, and reliable energy system. California's innovative energy policies strengthen energy resiliency, reduce greenhouse gas (GHG) emissions that cause climate change, improve air quality, and contribute to a more equitable future. (Urban Crossroads, 2023b, pp. 17-18)

2. *State of California Energy Plan*

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access. (Urban Crossroads, 2023b, p. 18)

3. *California Code Title 24, Part 6, Energy Efficiency Standards*

California Code Title 24, Part 6 (also referred to as the California Energy Code), was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy

consumption. To these ends, the California Energy Code provides energy efficiency standards for residential and nonresidential buildings. The 2022 version of Title 24 was adopted by the CEC and became effective on January 1, 2023. The CEC anticipates that the 2022 energy code will provide $1.5 billion in consumer benefits and reduce GHG emissions by 10 million metric tons. (Urban Crossroads, 2023b, p. 18)

4. Pavley Fuel Efficiency Standards (AB 1493)

California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Under this legislation, CARB adopted regulations to reduce GHG emissions from non-commercial passenger vehicles (cars and light-duty trucks). Although aimed at reducing GHG emissions, specifically, a co-benefit of the Pavley standards is an improvement in fuel efficiency and consequently a reduction in fuel consumption. (Urban Crossroads, 2023b, p. 20)

5. California Renewable Portfolio Standards (RPS)

First established in 2002 under Senate Bill (SB) 1078, California's RPS requires retail sellers of electric services to increase procurement from eligible renewable resources to 33 percent of total retail sales by 2020. (Urban Crossroads, 2023b, p. 20)

6. Senate Bill 350 (SB 350) – Clean Energy and Pollution Reduction Act of 2015

In October 2015, the legislature approved, and the Governor signed SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the renewables portfolio standard (RPS), higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33% to 50% by 2030, with interim targets of 40 percent by 2024, and 25% by 2027.
- Double the energy efficiency in existing buildings by 2030. This target would be achieved through the California Public Utility Commission (CPUC), the California Energy Commission (CEC), and local publicly owned utilities.
- Reorganize the Independent System Operator (ISO) to develop more regional electrify transmission markets and to improve accessibility in these markets, which would facilitate the growth of renewable energy markets in the western U.S. (Urban Crossroads, 2023b, p. 20)

7. California Solar Rights and Solar Shade Control Acts

The Solar Rights Act sets parameters for establishing solar easements, prohibits ordinances and private covenants which restrict solar systems, and requires communities to consider passive solar and natural heating and cooling opportunities in new construction. This Act is applicable to all California cities and counties. California's solar access laws appear in the state's Civil, Government, Health and Safety, and Public Resources Codes. California Pub Res Code § 25980 sets forth the Solar Shade Control Act, which encourages the use of

trees and other natural shading except in cases where the shading may interfere with the use of active and passive solar systems. (EPIC, 2014; EPIC, 2010)

C. Local Plans, Policies, and Regulations

1. Brea Municipal Code

The City adopted the California Building Standards Code (2019 Edition), including its Building Code, Energy Code, and Green Building Code (CalGreen) components, which will be codified in Title 15 of the Brea Municipal Code. The City's Building Code regulates and controls the minimum energy and resource efficiencies of all new development within the City.

4.5.3 Methodology for Calculating Project Energy Demands

Information from the CalEEMod (version 2022.1) outputs from the Project's Air Quality Impact Analysis (AQIA) *(*see *Technical Appendix B*) was used to detail the Project's construction equipment, transportation energy demands, and facility energy demands. These outputs are referenced in Appendices 4.1 through 4.3 of the Project's energy analysis report (see *Technical Appendix C*). Additionally, CARB's EMFAC2021 model was used to derive the average vehicle fuel economy which is then used to determine the estimated annual fuel consumption associated with vehicle usage during Project construction and operational activities. Data from the EMFAC 2021 model outputs are included in Appendix 4.3 of *Technical Appendix C*.

4.5.4 Basis for Determining Significance

According to Section I of Appendix G to the CEQA Guidelines, the proposed Project would result in a significant impact associated with energy consumption if the Project or any Project-related component would:

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

b. *Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.*

Under Threshold "a," the Project would be considered to result in wasteful, inefficient, or unnecessary consumption of energy if energy consumed by the Project's construction and/or operation cannot be accommodated with existing available resources and energy delivery systems, and requires and/or consumes more energy than industrial uses in California of similar scale and intensity.

4.5.5 IMPACT ANALYSIS

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

A. Energy Use During Construction

The Project's construction process would require the use of fuels (gasoline and diesel) and electricity. Project-related construction would represent a "single-event" energy demand and would not require on-going or permanent commitment of energy resources. Project construction activities are estimated to consume approximately 4,564 kilowatt hours (kWh) of electricity, approximately 10,403 gallons of diesel fuel from operation of construction equipment, 1,198 gallons of diesel fuel from construction vendor trips, and 789 gallons of fuel from construction worker trips. (Urban Crossroads, 2023b, pp. 26-31) Detailed calculations for all components of the Project's construction energy use are provided in Subsection 4.3 of the Project's energy analysis (refer to *Technical Appendix C*).

The equipment used for Project construction would conform to California Air Resources Board (CARB) regulations and State emissions standards. There are no unusual Project characteristics or construction processes that would require the use of equipment that would be more energy intensive or less energy efficient than is used for comparable activities elsewhere in the region; or equipment that would not conform to current emissions standards (and related fuel efficiencies). Additionally, Project construction activities would be required to comply with State law (Code of Regulations Title 13, Motor Vehicles, section 2449(d)(3)) and CARB Air Toxic Control Measures that place restrictions on the length of time that diesel-powered equipment and vehicles can idle before powering down (thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment). Lastly, Project construction contractors would be required to comply with applicable CARB regulations regarding retrofitting, repowering, or replacement of older, less-efficient diesel off-road construction equipment. (Urban Crossroads, 2023b, pp. 31-32) Accordingly, the equipment and vehicles employed in construction of the Project would not result in inefficient wasteful, or unnecessary consumption of fuel.

As supported by the preceding discussion, the Project's construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

B. Energy Use During Project Operation

Energy consumption in support of or related to Project operations would include transportation energy demands (energy consumed by passenger car and truck vehicles accessing the Project Site) and facility energy demands (energy consumed by building operations and Project Site maintenance activities).

The Project's net (proposed-existing) energy demand is calculated to be 109,066 gallons of fuel, 81,922 kWh of electricity, and 120,713 kBTU of natural gas per year (Urban Crossroads, 2023b, pp. 32-34). Refer to Subsection 4.4 of the Project's technical energy analysis (see *Technical Appendix C*) for detailed calculations of all components of the Project's operational energy use.

The Project would entail conventional commercial uses reflecting contemporary energy-efficient/energy-conserving designs and operational programs. The Project does not include proposed uses that are inherently energy intensive and the energy demands in total would be comparable to other commercial uses of similar scale and configuration. The Project would be subject to compliance with 2022 Energy Code and CalGreen standards, which became effective on January 1, 2023, and mandate energy conservation features that are more stringent (energy-conserving) than prior versions of the respective codes. On this basis, the Project would inherently use less energy than comparable buildings constructed under prior versions of the Energy and CalGreen Codes. Project building operations would not result in the inefficient, wasteful, or unnecessary consumption of energy due to mandatory Energy Code and CalGreen compliance. Furthermore, the Project Site is within the existing service areas of SCE and SoCalGas, is capable of being served by both energy providers, and implementation of the Project would not cause or result in the need for additional energy facilities or energy delivery systems. From a transportation energy perspective, the Project Site's location proximate to regional and local roadway systems would tend to minimize vehicle miles traveled (VMT) within the region, acting to reduce regional vehicle energy demands. Furthermore, the Project does not propose uses or operations that would inherently result in excessive and wasteful vehicle trips and VMT, nor associated excess and wasteful vehicle energy consumption. (Urban Crossroads, 2023b, p. 34)

As supported by the preceding discussion, the Project's operational energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

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

The following section analyzes the Project's consistency with the applicable federal, State, and local regulations for renewable energy or energy efficiency.

A. Consistency with Federal Energy Regulations

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

Transportation and access to the Project Site is provided by the local and regional roadway systems. The Project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be realized pursuant to the ISTEA because SCAG is not planning for intermodal facilities on or through the Project Site. (Urban Crossroads, 2023b, p. 38)

The Transportation Equity Act for the 21st Century (TEA-21)

The Project Site is located in an area with proximate access to the Interstate freeway system. The Site selected for the Project facilitates access, acts to reduce VMT by providing conveniently located commercial uses along Imperial Highway, takes advantage of existing infrastructure systems, and promotes land use compatibilities through collocation of similar uses. The Project supports the strong planning processes emphasized under TEA-21. The Project is therefore consistent with, and would not otherwise interfere with, nor obstruct implementation of TEA-21. (Urban Crossroads, 2023b, p. 38)

B. Consistency with State Energy Regulations

Integrated Energy Policy Report

The IEPR provides policy recommendations to be implemented by energy providers in California. Electricity would be provided to the Project by SCE. SCE's Clean Power and Electrification Pathway (CPEP) builds on existing State programs and policies that support the IEPR goals of improving electricity, natural gas, and transportation fuel energy use in California. SCE is consistent with, and would not otherwise interfere with, nor obstruct implementation of the goals presented in the 2021 IEPR. Thus, because the SCE is consistent with the 2021 IEPR, the Project is consistent with, and would not otherwise interfere with, nor obstruct implementation of the goals presented in the 2021 IEPR. (Urban Crossroads, 2023b, p. 38)

Additionally, the Project would comply with the applicable Title 24 standards which would ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary. As such, development of the Project would support the goals presented in the 2021 IEPR. (Urban Crossroads, 2023b, p. 38)

State of California Energy Plan

The Project Site is located in an area with proximate access to the Interstate freeway system. The location of the Project Site facilitates access and takes advantage of existing infrastructure systems. The Project Site is already developed and the Project represents redevelopment in an urban area. Therefore, the Project supports urban design and planning processes identified under the State of California Energy Plan, is consistent with, and would not otherwise interfere with, nor obstruct implementation of the State of California Energy Plan. (Urban Crossroads, 2023b, p. 39)

California Code Title 24, Part 6, Energy Efficiency Standards

The 2022 version of Title 24 was adopted by the CEC and was effective on January 1, 2023. As the Project building construction is anticipated in 2024, the Project would be required to comply with the Title 24 standards in place at that time. Therefore, the Project would not result in a significant impact on energy resources. The proposed Project would be subject to Title 24 standards. On this basis, the Project is determined to be consistent with, and would not interfere with, nor otherwise obstruct implementation of the State's 24 Energy Efficiency Standards. (Urban Crossroads, 2023b, p. 39)

Pavley Fuel Efficiency Standards (AB 1493)

AB 1493 is not directly applicable to the Project as it is a statewide measure establishing vehicle emissions standards. No feature of the Project would interfere with implementation of the requirements under AB 1493. (Urban Crossroads, 2023b, p. 39)

California Renewable Portfolio Standards (SB 1078)

California's RPS is not directly applicable to the Project as it is a statewide measure that establishes a renewable energy mix. No feature of the Project would interfere with implementation of the requirements under RPS. (Urban Crossroads, 2023b, p. 39)

Senate Bill 350 (SB 350) – Clean Energy and Pollution Reduction Act of 2015

No feature of the Project would interfere with implementation of SB 350. Additionally, the Project would be designed and constructed to implement the energy efficiency measures for new commercial developments and would include several measures designed to reduce energy consumption in accordance with Title 24. No feature of the Project would interfere with implementation of the requirements under SB 350. (Urban Crossroads, 2023b, p. 39)

C. Consistency with Local Energy Regulations

Brea Municipal Code

The City of Brea will require the Project to be designed, constructed, and operated to meet or exceed the California Green Building Standards Code (as adopted by Title 15 of the Brea Municipal Code). The City would confirm the Project's compliance with the Building Code as part of the building permit review process. On this basis, the Project is determined to be consistent with, and would not interfere with, nor otherwise obstruct implementation of the California Building Standards Code.

D. Conclusion

As supported by the preceding analysis, the Project would not conflict with or obstruct a federal, State or local plan for renewable energy or energy efficiency and a less than significant impact would occur.

4.5.6 Cumulative Impact Analysis

The Project and other new development projects within the cumulative study area would be required to comply with all of the same applicable federal, State, and local regulatory measures aimed at reducing fossil fuel consumption and the conservation of energy. Accordingly, the Project would not cause or contribute to a significant cumulatively considerable impact related to conflicts with a State or local plan for renewable energy or energy efficiency.

4.5.7 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The amount of energy and fuel consumed by construction and operation of the Project would not be inefficient, wasteful, or unnecessary. Furthermore, the Project would not cause or result in the need for additional energy facilities or energy delivery systems.

Threshold b: Less-than-Significant Impact. The Project would not cause or result in the need for additional energy production or transmission facilities. The Project would not conflict with or obstruct the achievement of energy conservation goals within the State of California identified in State and local plans for renewable energy and energy efficiency.

4.5.8 Mitigation

Energy impacts would be less than significant; therefore, mitigation is not required.

4.6 GEOLOGY AND SOILS

The analysis in this Subsection is based primarily on information contained in a technical report prepared by Terracon Consultants, Inc. titled, "Geotechnical Engineering Report, Proposed Brea Gaslight Square Development, Brea, Orange County, California" and dated May 12, 2022 (Terracon, 2022). The technical report is included as *Technical Appendix D*. Additional sources of information used to support the analysis in this Subsection include the Final EIR prepared for the City of Brea General Plan (Brea, 2003b) and the Brea Municipal Code (Brea, 2022a). All of the references used in this Subsection are listed in EIR Section 7.0, *References*.

4.6.1 EXISTING CONDITIONS

A. Soils

During a soils and geotechnical investigation of the Project Site performed by Terracon Consultants, fill material and poorly graded sand was encountered to a depth of 2.5 feet beneath the surface. From a depth of 2.5 feet to 31.5 feet beneath the surface, interchanging layers of sand with variable amounts of clay and clay with varying amounts of sand was encountered. The consistency of this layer was medium dense to dense (sand) and stiff to very stiff (clay). (Terracon, 2022, p. 4)

B. Groundwater

Terracon Consultants did not observe any groundwater seepage at maximum depths of any of the subsurface drilling locations (Terracon, 2022, p. 4). Based on a review of the Seismic Hazard Zone Report for the La Habra 7.5-minute quadrangle, historic groundwater elevations at the Project Site are reported to be more than 10 feet below the ground surface (Terracon, 2022, p. 5). According to data collected from a nearby monitoring well located southwest of the Project Site, at 120 East Imperial Highway, the groundwater level recorded on April 18, 2007 was measured at 47 feet below the ground surface (Terracon, 2022, p. 5).

C. Seismic Hazards

The Project Site is located in an area of southern California that is subject to strong ground motions due to seismic events (i.e., earthquakes). The geologic structure of southern California is dominated mainly by northwest-trending faults associated with the San Andreas system. The nearest active fault to the Project Site is the Whittier Fault, located approximately 2.2 miles to the north (Terracon, 2022, p. 6). An active fault is defined by the California Geological Survey as a fault that has experienced surface displacement within the Holocene Epoch (roughly the last 11,000 years).

Secondary hazards associated with earthquakes include surface rupture, ground failure, unstable soils and slopes. Each of these hazards is briefly described below.

1. Fault Rupture

Fault rupture can occur along pre-existing, known active fault traces; however, fault rupture also can splay from known active faults or rupture along unidentified fault traces. The Project Site is not located within the

Alquist-Priolo Earthquake Fault Zone and Terracon Consultants did not identify any evidence of faulting during the Project Site's geotechnical investigation (Terracon, 2022, p. 6).

2. Liquefaction

Liquefaction is a phenomenon in which loose, saturated, relatively cohesion-less soil deposits lose shear strength during strong ground motions, which causes the soil to behave as a viscous liquid. Liquefaction is generally limited to the upper 50 feet of subsurface soils. Research and historical data indicate that loose granular soils of Holocene to late Pleistocene age below a near-surface groundwater table are most susceptible to liquefaction, while the stability of most clayey material is not adversely affected by vibratory motion (SCEC, 1999, pp. 5-6).

The Project Site is not located within a liquefaction hazard zone as designated by the California Geological Survey (CGS). Based on CGS mapping and the anticipated depth to groundwater, liquefaction hazard potential at the Project Site is considered low. Potential for other geologic hazards related to liquefaction, such as lateral spreading, are therefore, also considered low. (Terracon, 2022, p. 7)

3. Unstable Soils and Slopes

The Project Site is generally flat and does not contain, nor is adjacent to any, steep natural or manufactured slopes and there is no evidence of historical landslides or rockfalls on the Project Site (Google Earth, 2022; CGS, 2022). As such, the Project Site is not susceptible to seismically-induced landslides and rockfalls.

D. Soil Instability Hazards

1. Soil Erosion

Erosion is the process by which the upper layers of the surface (such as soils) are worn and removed by the movement of water or wind. Soils with characteristics such as low permeability and/or low cohesive strength are more susceptible to erosion than those soils having higher permeability and cohesive strength. Additionally, the slope gradient on which a given soil is located also contributes to the soil's resistance to erosive forces. Because water is able to flow faster down steeper gradients, the steeper the slope on which a given soil is located, the more readily it will erode. According to the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS), soils on the Project Site and in the surrounding area are moderately susceptible to erosion (NRCS, 2022). However, because the Project Site is fully developed in its existing condition, there are no large areas of exposed loose soil that could be subjected to substantial wind erosion.

Wind erosion can damage land and natural vegetation by removing soil from one place and depositing it in another. It mostly affects dry, sandy soils in flat, bare areas, but wind erosion may occur wherever soil is loose, dry, and finely granulated. According to the USDA NRCS, soils on the Project Site and in the surrounding area are highly susceptible to wind erosion. (NRCS, 2022) However, because the Project Site is fully developed in its existing condition, there are no large areas of exposed loose soil that could be subjected to substantial wind erosion.

2. Settlement Potential

Settlement refers to unequal compression of a soil foundation, shrinkage, or undue loads being applied to a building after its initial construction that affect the soil foundation. According to Terracon consultants, soils present on the Project Site have settlement potential (Terracon, 2022, p. 15). However, because the Project Site is fully developed in its existing condition, settlement risks were addressed as part of the development process for the existing buildings and as such, the existing on-site features are not at substantial risk of settlement.

3. Shrinkage/Subsidence Potential

Subsidence is a gradual settling or sudden sinking of the ground surface (i.e., loss of elevation). The principal causes of subsidence are aquifer-system compaction, drainage of organic soils, underground mining, and natural compaction. Shrinkage is the reduction in volume in soil as the water content of the soil drops (i.e., loss of volume). Subsurface exploration and laboratory testing conducted by Terracon Consultants on soils collected from the Project Site indicate that there is potential for shrinkage (Terracon, 2022, p. 7). However, because the Project Site is fully developed in its existing condition, subsidence potential was addressed as part of the development process for the existing buildings and as such, the existing on-site features are not at substantial risk of being affected by subsidence.

4. Soil Expansion Potential

Expansive soils are soils that exhibit cyclic shrink and swell patterns in response to variations in moisture content. Sites with expansive soils (expansion index >20) require special attention during project design and maintenance. Soil testing conducted by Terracon Consultants, found that expansive soils are present on the Project Site (Terracon, 2022, p. 7). However, because the Project Site is fully developed in its existing condition, soil expansion risks were addressed as part of the development process for the existing buildings and as such, the existing on-site features are not at substantial risk of soil expansion effects.

5. Landslide Potential

The Project Site and immediately surrounding properties are located on a generally flat valley floor and contain no steep natural or manufactured slopes (Google Earth, 2022); thus, the potential for landslides on or near the Project Site is minimal.

E. Paleontological Setting

According to the City of Brea General Plan EIR, paleontological resources have been unearthed in the region (Brea, 2003b, p. 94). Pertaining to the Project Site, however, the Site's ground surface was previously disturbed by excavation for construction of the existing commercial/office buildings and associated improvements; therefore, there is a low possibility of paleontological resources being present beneath the Site.

4.6.2 Applicable Environmental Regulations

The following is a brief description of the federal, State, and local environmental laws and related regulations governing issues related to geology, soils, and paleontological resources.

A. Federal Regulations

1. Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was substantially reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry, and also has set water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters (EPA, 2022e).

B. State Plans, Policies, and Regulations

1. Alquist-Priolo Earthquake Fault Zoning Act (A-P Act)

The Alquist-Priolo Earthquake Fault Zoning Act (A-P Act) was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The A-P Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults (CA Legislative Info, n.d.). The A-P Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards.

The A-P Act requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones) around the surface traces of active faults and to issue appropriate maps. ["Earthquake Fault Zones" were called "Special Studies Zones" prior to January 1, 1994.] The maps are distributed to all affected cities, counties, and state agencies for their use in planning and controlling new or renewed construction. Local agencies must regulate most development projects within the zones. Projects include all land divisions and most structures for human occupancy. Single family wood-frame and steel-frame dwellings up to two stories not part of a development of four units or more are exempt. However, local agencies can be more restrictive than state law requires.

Before a project can be permitted, cities and counties must require a geologic investigation to demonstrate that proposed buildings will not be constructed across active faults. An evaluation and written report of a specific Site must be prepared by a licensed geologist. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (generally 50 feet).

There are no active faults on the Project Site and the Project Site is not located within the Alquist-Priolo Earthquake Fault Zone (Terracon, 2022, p. 6).

2. Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (SHMA) of 1990 (Public Resources Code, Chapter 7.8, § 2690-2699.6) directs the Department of Conservation, California Geological Survey to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. The purpose of the SHMA is to minimize loss of life and property through the identification, evaluation, and mitigation of seismic hazards. (CDC, n.d.)

Staff geologists in the Seismic Hazards Program gather existing geological, geophysical, and geotechnical data from numerous sources to produce the Seismic Hazard Zone Maps. They integrate and interpret these data regionally in order to evaluate the severity of the seismic hazards and designate as Zones of Required Investigation (ZORI) those areas prone to liquefaction and earthquake–induced landslides. Cities and counties are then required to use the Seismic Hazard Zone Maps in their land use planning and building permit processes. (CDC, n.d.)

The SHMA requires site-specific geotechnical investigations be conducted within the ZORI to identify and evaluate seismic hazards and formulate mitigation measures prior to permitting most developments designed for human occupancy. (CDC, n.d.)

3. Natural Hazards Disclosure Act

The Natural Hazards Disclosure Act, effective June 1, 1998 (as amended June 9, 1998), requires that sellers of real property and their agents provide prospective buyers with a "Natural Hazard Disclosure Statement" when the property being sold lies within one or more state-mapped hazard areas, including a Seismic Hazard Zone. (CA Legislative Info, n.d.)

The law requires the State Geologist to establish regulatory zones (Zones of Required Investigation) and to issue appropriate maps (Seismic Hazard Zone maps). These maps are distributed to all affected cities, counties, and state agencies for their use in planning and controlling construction and development. Single-family frame dwellings up to two stories not part of a development of four or more units are exempt from the state requirements. However, local agencies can be more restrictive than state law requires. (CA Legislative Info, n.d.)

Before a development permit can be issued or a subdivision approved, cities and counties must require a site-specific investigation to determine whether a significant hazard exists at the site and, if so, recommend measures to reduce the risk to an acceptable level. The investigation must be performed by state-licensed engineering geologists and/or civil engineers. (CA Legislative Info, n.d.)

4. *California Building Standards Code (Title 24)*

California Code of Regulations (CCR) Title 24 is reserved for State regulations that govern the design and construction of buildings, associated facilities, and equipment. These regulations are also known as building standards (reference California Health and Safety Code § 18909). Health and Safety Code (state law) § 18902 gives CCR Title 24 the name California Building Standards Code (CBSC). (CBSC, 2022, p. 1)

The CBSC in CCR Title 24 is published by the California Building Standards Commission and it applies to all building occupancies (see Health and Safety Code §§ 18908 and 18938) throughout the State of California. Cities and counties are required by state law to enforce CCR Title 24 (reference Health and Safety Code §§ 17958, 17960, 18938(b), and 18948). Cities and counties may adopt ordinances making more restrictive requirements than provided by CCR Title 24, because of local climatic, geological, or topographical conditions. Such adoptions and a finding of need statement must be filed with the California Building Standards Commission (Reference Health and Safety Code §§ 17958.7 and 18941.5). (CBSC, 2022, p. 1)

5. *Porter-Cologne Water Control Act*

The Porter-Cologne Act is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water (SWRCB, 2014a). The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code Section 13000 *et seq*.), the policy of the State is as follows:

- That the quality of all the waters of the State shall be protected;
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation.

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The State Water Board and Regional Water Boards have numerous non-point source (NPS) related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

The Regional Water Boards regulate discharges under the Porter-Cologne Act primarily through issuance of NPDES permits for point source discharges and waste discharge requirements (WDRs) for NPS discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The

Storm Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Porter-Cologne Act provides several options for enforcing WDRs and other orders, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions.

The Porter-Cologne Act also implements many provisions of the Clean Water Act, such as the NPDES permitting program. The Porter-Cologne Act also requires adoption of water quality control plans that contain the guiding policies of water pollution management in California. In addition, regional water quality control plans (basin plans) have been adopted by each of the Regional Water Boards and get updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. The Project Site is located in the Santa Ana River Watershed, which is within the purview of the Santa Ana RWQCB. The Santa Ana's RWQCB's *Santa Ana River Basin Water Quality Control Plan* is the governing water quality plan for the region.

C. Local Plans, Policies, and Regulations

1. City of Brea General Plan

The Public Safety Chapter of the City of Brea General Plan sets forth goals and policies to protect and safeguard Brea residents from natural and man-made hazards, including earthquakes. (Brea, 2003a, Chapter 6)

2. County of Orange & Orange County Fire Authority Local Hazard Mitigation Plan

The County of Orange & Orange County Fire Authority Local Hazard Mitigation Plan is a multi-jurisdictional plan that includes policies designed to protect residents, critical facilities, infrastructure, key resources, private property, and the environment from natural hazards in unincorporated areas of the County as well as County and Orange County Fire Authority owned facilities. (Orange County, 2021)

3. Brea City Code

The Brea City Code contains the Municipal Code (Part I) and the Development Code (Part II). The Brea City Code requires project construction activities to comply with the water quality management measures identified in Chapter 13.32, *Storm Water Drainage*. Projects are required to prepare a Water Quality Management Plan (WQMP) to evaluate long-term operational impacts related to soil erosion or loss of topsoil. Additionally, projects are required to comply with the National Pollutant Discharge Elimination System (NPDES) program to control direct storm water discharges, which involves the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for construction-related activities, including grading. The Development Code regulates property development and building construction, alteration, moving, and demolition of all buildings in the City of Brea. The Building Code (Chapter 15.08) requires projects to incorporate appropriate design and construction measures to guard against ground shaking hazards. (Brea, 2022a)

4. SCAQMD Rule 403 (Fugitive Dust)

South Coast Air Quality Management District (SCAQMD) Rule 403 (Fugitive Dust) requires the implementation of best available dust control measures (BACM) during active operations capable of generating fugitive dust. The purpose of this Rule is to minimize the amount of particulate matter in the ambient air as a result of anthropogenic fugitive dust sources. (SCAQMD, 2005)

4.6.3 METHODOLOGY FOR EVALUATING GEOLOGY & SOILS IMPACTS

The analysis of potential geology and soils-related impacts is based upon the geotechnical investigation prepared specifically for the Project Site (*Technical Appendix D*). The geotechnical investigation includes site reconnaissance, review of published reports, maps, and aerial photographs, geotechnical field explorations, laboratory testing, engineering analysis, and soil borings. The City's General Plan and information sources from State and federal agencies were researched to establish the Project Site's existing conditions and likelihood of environmental effects.

4.6.4 BASIS FOR DETERMINING SIGNIFICANCE

Section VI of Appendix G to the CEQA Guidelines addresses typical adverse effects due to geological conditions, and includes the following threshold questions to evaluate the Project's impacts resulting from geologic or soil conditions:

a. *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 evidence of a 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*

b. *Result in substantial soil erosion or the loss of topsoil;*

c. *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;*

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

e. *Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water*;

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

4.6.5 IMPACT ANALYSIS

Threshold a:	***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 evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42; strong seismic ground shaking; seismic-related ground failure, including liquefaction; landslides?***

A. Rupture of a Known Earthquake Fault

There are no known active or potentially active faults on or trending toward the Project Site and the Project Site is not located within a mapped Alquist-Priolo Earthquake Fault Zone (Terracon, 2022, p. 6). Because there are no known faults located on or trending towards the Project Site, there is no potential for the Project to directly or indirectly expose people or structures to substantial adverse effects related to ground rupture. No impact would occur.

B. Strong Seismic Ground Shaking

The Project Site is located in a seismically active area of southern California and is expected to experience moderate to severe ground shaking during the lifetime of the Project. This risk is not substantially different than the risk to other properties throughout the southern California area. As a mandatory condition of Project approval, the Project Applicant would be required to construct the proposed buildings in accordance with the 2022 California Building Code and the Brea Building Code, which is based on the California Building Code (Brea City Code, Chapter 15.08). The California Building Code and Brea Building Code, which are specifically tailored for California earthquake conditions, provide building standards that must be met to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures.

The Project Applicant retained a professional geotechnical firm, Terracon Consultants, to prepare a geotechnical report for the Project Site, which is included as *Technical Appendix D* to this EIR. The geotechnical report includes recommendations for design, construction, and grading considerations based on the Site's specific geological conditions and the Project's specific design. The recommendations include seismic design considerations, geotechnical engineering recommendations, site grading and drainage recommendations, construction considerations, foundation design and construction, floor slab design and construction, and pavement design parameters. This geotechnical report complies with the requirements of the California Building Code and the Brea Building Code, Chapter 15.08. In conformance with the City Code, the City will condition the Project to comply with the Site-specific ground preparation and construction recommendations contained in the Project's geotechnical report (*Technical Appendix D* to this EIR). With

mandatory compliance with these standard and Site-specific design and construction measures, implementation of the Project would not directly or indirectly expose people or structures to substantial adverse effects, including loss, injury or death, involving seismic ground shaking. Impacts would be less than significant.

C. Seismic Related Ground Failure

The Project Site is not located within a liquefaction hazard zone as designated by the California Geological Survey (CGS). Based on CGS mapping and the anticipated depth to groundwater, liquefaction hazard potential at the Project Site is considered low. Potential for other geologic hazards related to liquefaction, such as lateral spreading, are therefore, also considered low (Terracon, 2022, p. 7). Regardless, the Project would be required to be designed and constructed in accordance with applicable seismic safety guidelines, including the standard requirements of the 2022 California Building Code which went into effect on January 1, 2023, and the Brea Building Code, as noted above. The Project would also be required (via conditions of approval) to comply with the grading and construction recommendations contained within the geotechnical report for the Project Site to further reduce the risk of seismic-related ground failure due to liquefaction. Refer to *Technical Appendix D* to this EIR. Therefore, implementation of the Project would not directly or indirectly expose people or structures to substantial hazards associated with seismic-related ground failure and/or liquefaction hazards. Impacts would be less than significant.

D. Landslides

The Project Site and immediately surrounding properties are located on a generally flat valley floor and contain no steep natural or manufactured slopes (Google Earth, 2022); thus, the potential for landslides on or near the Project Sites is minimal. Mandatory compliance with the recommendations contained within the Project Site's geotechnical report would ensure that the Project is engineered and constructed to maximize stability and preclude safety hazards to on-site and abutting off-site areas. Refer to *Technical Appendix D* to this EIR. Accordingly, the Project would not be exposed to substantial landslide risks, and implementation of the Project would not pose a substantial direct or indirect landslide risk to surrounding properties. Impacts would be less than significant.

***Threshold b*: Would the Project result in substantial soil erosion or the loss of topsoil?**

Grading and earthwork activities associated with Project construction would expose soils to potential short-term erosion by wind and water. Project construction would be required to comply with the water quality management measures identified in the Brea City Code Chapter 13.32, *Storm Water Drainage*. As further discussed under Section 4.9, *Hydrology and Water Quality*, of this EIR, the Project would be required to comply with the National Pollutant Discharge Elimination System (NPDES) program to control direct storm water discharges, which involves the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for construction-related activities, including grading. The Project also would be required to demonstrate compliance with SCAQMD Rule 403, which would reduce the potential for wind erosion during construction through the implementation of dust control measures. Following compliance with the established

regulatory framework (i.e., Brea City Code Chapter 13.32 and SCAQMD Rule 403), impacts during construction would be less than significant.

Long-term operational impacts related to soil erosion or loss of topsoil would be required to comply with the requirements outlined in the Project's Water Quality Management Plan (WQMP) in compliance with the Brea City Code Chapter 13.32. The Project's WQMP is included as *Technical Appendix F2* to this EIR. The WQMP includes structural and non-structural best management practices (BMPs) to ensure water quality standards are upheld. The BMPs identified in the Project's WQMP would reduce the Project's potential operational impacts concerning soil erosion or loss of topsoil. Therefore, Project operations are not anticipated to result in substantial soil erosion or loss of topsoil. Impacts would be less than significant.

Threshold c: ***Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?***

The Project Site is relatively flat, no substantial natural or man-made slopes are located on or adjacent to the Project Site, and the Project does not propose the construction of any sizable manufactured slopes (Google Earth, 2022). Accordingly, the Project would result in less-than-significant impacts associated with landslide hazards.

The Project Site is not located within a liquefaction hazard zone as designated by the California Geological Survey (CGS). Based on CGS mapping and the anticipated depth to groundwater, liquefaction hazard potential at the Project Site is considered low. Potential for other geologic hazards related to liquefaction, such as lateral spreading, are therefore, also considered low (Terracon, 2022, p. 7). Impacts would be less than significant.

Regarding on-site soils that exist beneath the existing structural fill, these native soils have settlement and shrinkage potential. The Project Applicant retained a professional geotechnical firm, Terracon Consultants, to prepare a geotechnical report for the Project Site, which is included as *Technical Appendix D* to this EIR. The geotechnical report includes recommendations for site grading and drainage, foundation design, floor slab design, and other items to address Site-specific conditions. In conformance with Brea City Code, the City will condition the Project to comply with the Site-specific ground preparation and construction recommendations contained in the Project's geotechnical report (*Technical Appendix D* to this EIR). With mandatory compliance with these standard and Site-specific design and construction measures, implementation of the Project would not be located on soil that would become unstable as a result of the Project. A potentially significant impact would occur if the Project were to fail to implement the recommendations of the Project's Geotechnical Investigation (*Technical Appendix D*) to attenuate hazards associated with soils having settlement or shrinkage potential. As discussed below, with implementation of mitigation, potential impacts would be less than significant.

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

According to soil testing conducted as part of the geotechnical investigation for the Project Site, expansive soils are present on the Project Site (Terracon, 2022, p. 7). An expansion index test for upper soils on the Project Site resulted in an expansion index of 37 for a soil sample taken in the southwestern portion of the Project Site and an expansion index of and 59 for a soil sample taken in southcentral portion of the Project Site. The development of the Project's proposed buildings would be conducted to comply with the 2022 California Building Code and Brea City Code Chapter 15.08 to preclude impacts related to expansive soils. A potentially significant impact would occur if the Project were to fail to implement the recommendations of the Project's Geotechnical Investigation (*Technical Appendix D*) to attenuate hazards associated with expansive soils. As discussed below, with implementation of mitigation, potential impacts would be less than significant.

Threshold e: ***Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?***

The Project does not propose the use of septic tanks or alternative waste water disposal systems. No impacts would occur.

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

According to the City of Brea General Plan EIR, paleontological resources have been unearthed in the region (Brea, 2003b, p. 94). Pertaining to the Project Site, however, the Site's ground surface was previously disturbed by excavation for construction of the existing commercial/office buildings and associated improvements; therefore, there is a very low possibility of paleontological resources being present beneath the Site and encountered during Project-related redevelopment activities. In the event that the Project's construction activities extend at depth into previously undisturbed older alluvium deposits, the Project could result in impacts to important paleontological resources if such resources are unearthed and not properly treated. Therefore, the Project's potential to directly or indirectly destroy a unique paleontological resource buried beneath the ground surface is determined to be a potentially significant impact and mitigation is required. As discussed below, with implementation of mitigation, potential direct and cumulatively-considerable impacts would be reduced to less than significant.

4.6.6 Cumulative Impact Analysis

With the exception of erosion hazards, potential hazardous effects related to geologic and soil conditions addressed under Thresholds "a," "c," "d," and "e" are unique to the Project Site, and inherently restricted to the specific property proposed for development. That is, issues including fault rupture, seismic ground shaking, liquefaction, landslides, and expansive soils would involve effects to (and not from) a proposed development project, are specific to conditions on the subject property, and are not influenced or exacerbated by the geologic and/or soils hazards that may occur on other, off-site properties. Further, as noted in the foregoing analysis, all

potential Project-related direct and indirect impacts related to potential hazardous effects related to geologic and soil conditions would be precluded through mandatory conformance with the 2022 California Building Code, Brea City Code, other standard regulatory requirements, and the Site-specific geotechnical recommendations contained within the Project geotechnical report, which will be incorporated into the Project's design via conditions of approval. Because of the Site-specific nature of these potential hazards and the measures to address them, there would be no direct or indirect connection to similar potential issues or cumulative effects to or from other properties.

As discussed under Threshold "b," regulatory requirements mandate that the Project incorporate design measures during construction and long-term operation to ensure that significant erosion impacts do not occur. Other development projects in the vicinity of the Project Site would be required to comply with the same regulatory requirements as the Project to preclude substantial adverse water and wind erosion impacts. Because the Project and other projects within the cumulative study area would be subject to similar mandatory regulatory requirements to control erosion hazards during construction and long-term operation, cumulative impacts associated with wind and water erosion hazards would be less-than-significant.

The Project's potential to result in cumulative impacts to paleontological resources is low due to the Project Site already being developed. Nonetheless, if fossils are encountered that are determined to be important, the potential impact to paleontological resources is a cumulatively-considerable impact when considered in context with other development projects in the region with the potential to impact paleontological resources. The potential impact is therefore considered cumulatively considerable for which mitigation is required. As discussed below, with implementation of mitigation, cumulatively-considerable impacts would be less-than-significant.

4.6.7 Significance of Impacts Before Mitigation

Threshold a: No Impact. Implementation of the Project would not expose people or structures to substantial direct or indirect adverse effects related to liquefaction or fault rupture. The Project Site is subject to seismic ground shaking associated with earthquakes; however, mandatory compliance with local and State regulatory requirements and building codes would ensure that the Project minimizes potential hazards related to seismic ground shaking to less-than-significant levels.

Threshold b: Less-than-Significant Impact. Implementation of the Project would not result in substantial soil erosion or loss of topsoil. The Project Applicant would be required to obtain a NPDES permit for construction activities and adhere to a SWPPP, and prepare an erosion control plan to minimize water and wind erosion. Following completion of development, the Project's owner or operator would be required by law to implement a SWQMP during operation, which would preclude substantial erosion impacts in the long-term.

Threshold c: Significant Direct Impact. There is no potential for the Project's construction or operation to cause, or be impacted by, on- or off-site landslides or lateral spreading. The Project Site contains soils that have settlement and shrinkage potential. A potentially significant impact would occur if the Project were to

fail to implement the recommendations of the Project's Geotechnical Investigation (*Technical Appendix D*) to attenuate hazards associated with unstable soils.

Threshold d: Significant Direct Impact. The Project Site contains expansive soils. A potentially significant impact would occur if the Project were to fail to implement the recommendations of the Project's Geotechnical Investigation (*Technical Appendix D*) to attenuate hazards associated with expansive soils.

Threshold e: No Impact. No septic tanks or alternative wastewater disposal systems are proposed to be installed on the Project Site. Accordingly, no impact would occur associated with soil compatibility for wastewater disposal systems.

Threshold f: Significant Direct and Cumulatively-Considerable Impact. The Project would not impact any known paleontological resource or unique geological feature and has a low potential to impact such resources due to Project Site already being developed. Nonetheless, construction activities on the Project Site have the remote potential to unearth and adversely impact paleontological resource that may be buried beneath the ground surface if ground disturbance activities extend into older alluvium soils.

4.6.8 Mitigation

The following mitigation measure would address the Project's potential cause impacts associated with potentially unstable or expansive soils, as identified under Thresholds "c" and "d."

MM 4.6-1 Prior to the issuance of a grading permit, the Applicant shall provide written evidence to the City of Brea Building & Safety Division that a geotechnical engineer has been retained to monitor the grading operation and assure implementation of the soil settlement and expansion treatment recommendations contained in the site-specific Geotechnical Investigation prepared by Terracon Consultants and dated May 12, 2022. All recommendations shall be implemented to the performance standards specified in the Geotechnical Investigation and to the satisfaction of the geotechnical engineer. Evidence of implementation shall be provided to the Building & Safety Division prior to issuance of a building permit.

The following mitigation measure would address the Project's potential to encounter a paleontological resource during ground-disturbing activities in older alluvium deposits, as identified under Threshold "f."

MM 4.6-2 Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Brea that a qualified paleontologist ("paleontologist") has been retained by the Project Applicant or contractor to be on-call should any suspected paleontological resources be encountered during Project-related construction activities.

MM 4.6-3 If a suspected paleontological resource is discovered during earth disturbance activities, the discovery shall be cordoned off with a 100-foot radius buffer by the construction contractor so

as to protect the discovery from further potential damage, and the paleontologist shall be consulted to assess the discovery.

MM 4.6-4 If a discovery is determined to be significant by the paleontologist, the following shall occur:

a. Monitoring of excavation activities in areas identified as likely to contain paleontological resources shall be performed by a qualified paleontologist or paleontological monitor for the remainder of ground-disturbing construction processes. Monitoring will be conducted full-time in areas of grading or excavation in undisturbed older alluvium deposits.

b. Paleontological monitors will be equipped to salvage fossils as they are unearthed to avoid construction delays. The monitor must be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or, if present, are determined on exposure and examination by qualified paleontological personnel to have low potential to contain fossil resources. The monitor shall notify the project paleontologist, who will then notify the concerned parties of the discovery.

c. Paleontological salvage during trenching and boring activities is typically from the generated spoils and does not delay the trenching or drilling activities. Fossils will be collected and identified by field number, collector, and date collected. Notes will be taken on the map location and stratigraphy of the site, which is photographed before it is vacated, and the fossils are removed to a safe place. If the site involves remains from a large terrestrial vertebrate, such as large bone(s) or a mammoth tusk, that is/are too large to be easily removed by a single monitor, a fossil recovery crew shall excavate around the find, encase the find within a plaster and burlap jacket, and remove it after the plaster is set. For large fossils, use of the contractor's construction equipment may be solicited to help remove the jacket to a safe location.

d. Isolated fossils will be collected by hand and notes will be taken on the map location and stratigraphy of the site, which is photographed before it is vacated, and the fossils are removed to a safe place.

e. Particularly small invertebrate fossils typically represent multiple specimens of a limited number of organisms, and a scientifically suitable sample can be obtained from one to several five-gallon buckets of fossiliferous sediment. If it is possible to dry screen the sediment in the field, a concentrated sample may consist of one or two buckets of material. For vertebrate fossils, the test is usually the observed presence of small pieces of bones within the sediments.

f. In accordance with the "Microfossil Salvage" section of the Society of Vertebrate Paleontology guidelines (2010:7), bulk sampling and screening of fine-grained sedimentary

deposits (including carbonate-rich paleosols) must be performed if the deposits are identified to possess indications of producing fossil "microvertebrates" to test the feasibility of the deposit to yield fossil bones and teeth.

g. In the laboratory, individual fossils will be cleaned of extraneous matrix, and recovered specimens are prepared to a point of identification and permanent preservation (not display), including screen-washing sediments to recover small invertebrates and vertebrates.

i. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage shall be conducted. The paleontological program should include a written repository agreement prior to the initiation of mitigation activities. Prior to curation, the lead agency (*e.g.*, the City of Brea) will be consulted on the repository/museum to receive the fossil material.

j. A final report of findings and significance will be prepared, including lists of all fossils recovered and necessary maps and graphics to accurately record their original location(s). The report, when submitted to, and accepted by, the City of Brea, will signify satisfactory completion of the project program to mitigate impacts to any potential nonrenewable paleontological resources (*i.e.*, fossils) that might have been lost or otherwise adversely affected without such a program in place.

4.6.9 Significance of Impacts After Mitigation

Thresholds c and d: Less-than-Significant Impact with Mitigation Incorporated. Implementation of MM 4.6-1 would ensure that the Project implements the recommendations of the Project's Geotechnical Investigation (*Technical Appendix D*), which would ensure measures are implemented to address potential impacts due to the Project being located on soil that is unstable or expansive. With implementation of the required mitigation, potential substantial adverse effects due to the Project being located on unstable or expansive soil would be reduced to less-than-significant levels.

Threshold f: Less-than-Significant Impact with Mitigation Incorporated. Implementation of MM 4.6-2 through MM 4.6-4, would ensure the proper identification and subsequent treatment of any paleontological resources that may be encountered during ground-disturbing activities associated with implementation of the Project. With implementation of MMs 4.6-2 through 4.6-4, the Project's potential impact to paleontological resources would be reduced to less than significant.

4.7 GREENHOUSE GAS EMISSIONS

The analysis provided in this Subsection evaluates whether greenhouse gas (GHG) emissions resulting from the Project has the potential to contribute substantially to Global Climate Change (GCC) and its associated environmental effects. This analysis is based on a report prepared by Urban Crossroads, Inc. titled, "Brea Gaslight Square, Greenhouse Gas Analysis, City of Brea" dated January 23, 2023 (Urban Crossroads, 2023c). The GHG analysis report (GHGA) is included as *Technical Appendix E* to this EIR. All references used in this Subsection are listed in EIR Section 7.0, *References*.

4.7.1 EXISTING CONDITIONS

A. Introduction to Global Climate Change

GCC is defined as the change in average meteorological conditions on Earth with respect to temperature, precipitation, and storms. The majority of scientists believe that the climate shift taking place since the Industrial Revolution is occurring at a quicker rate and magnitude than in the past due to human activity and industrialization over the past 200 years. Scientific evidence suggests that GCC is the result of increased concentrations of GHGs in planet Earth's atmosphere, including carbon dioxide, methane, nitrous oxide, and fluorinated gases. (Urban Crossroads, 2023c, p. 13)

An individual land development project is not capable of generating the magnitude of GHG emissions necessary to cause a discernible effect on global climate. However, individual development projects may contribute to GCC by generating GHGs that combine with other regional and global sources of GHGs. (Urban Crossroads, 2023c, p. 13)

B. Greenhouse Gases

Carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) emissions are the focus of evaluation in this Subsection because these gases are the primary contributors to GCC resulting from land development projects. Although other substances, such as fluorinated gases, also contribute to GCC, sources of fluorinated gases are not well-defined and no accepted emissions factors or methodology exist to accurately calculate the emissions of these gases. (Urban Crossroads, 2023c, pp. 13-14)

A global warming potential (GWP) value represents the effectiveness of a gas to trap heat in the atmosphere. Individual GHGs have varying GWP values, as assigned by the Intergovernmental Panel on Climate Change (IPCC). The atmospheric lifetime and GWP of selected GHGs are summarized in Table 4.7-1, GWP and Atmospheric Lifetime of Select GHGs. As shown in Table 4.7-1, GWP values range from 1 for CO_2 up to 23,500 for Sulfur Hexafluoride (SF_6).

Provided below is a description of the various gases that contribute to GCC. For more information about these gases and their associated human health effects, refer to Section 2.3 of *Technical Appendix E* and the reference sources cited therein.

Table 4.7-1 GWP and Atmospheric Lifetime of Select GHGs

Gas	Atmospheric Lifetime (years)	GWP (100-year time horizon)		
		2nd Assessment Report	4th Assessment Report	5th Assessment Report
CO_2	See*	1	1	1
CH_4	12 .4	21	25	28
N_2O	121	310	298	265
HFC-23	222	11,700	14,800	12,400
HFC-134a	13.4	1,300	1,430	1,300
HFC-152a	1.5	140	124	138
SF_6	3,200	23,900	22,800	23,500

Source: (Urban Crossroads, 2023c, Table 2-2)

- **Water Vapor (H_2O)** is the most abundant and variable GHG in the atmosphere. Changes in the concentration of water vapor in the atmosphere are considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity rises (in essence, the air is able to 'hold" more water when it is warmer), leading to more water vapor in the atmosphere. The higher concentration of water vapor in the atmosphere is then able to absorb more indirect thermal energy radiated from the Earth, further warming the atmosphere and causing the evaporation cycle to perpetuate. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are able to reflect incoming solar radiation and thereby allow less energy to reach the Earth's surface and heat it up. There are no human health effects from water vapor itself; however, certain pollutants can dissolve in water vapor and the water vapor can then act as a pollutant-carrying agent. (Urban Crossroads, 2023c, pp. 14-15)

- **Carbon Dioxide (CO_2)** is an odorless and colorless GHG that is emitted from natural and man-made sources. Natural CO_2 sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Man-made CO_2 sources include: the burning of coal, oil, natural gas, and wood. Since the industrial revolution began in the mid-1700s, human activities that produce CO_2 have increased dramatically. As an example, prior to the industrial revolution, CO_2 concentrations in the atmosphere were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30 percent. Exposure to CO_2 in high concentrations can cause adverse human health effects, but outdoor (atmospheric) levels are not high enough to be detrimental to human health. (Urban Crossroads, 2023c, pp. 15-16)

- **Methane (CH_4)** absorbs thermal radiation extremely effectively (i.e., retains heat). Over the last 50 years, human activities such as rice cultivation, cattle ranching, natural gas combustion, and coal mining have increased the concentration of methane in the atmosphere. Other man-made sources include fossil-fuel combustion and biomass burning. No human health effects are known to occur from atmospheric exposure

to methane; however, methane is an asphyxiant that may displace oxygen in enclosed spaces. (Urban Crossroads, 2023c, p. 16)

- **Nitrous Oxide (N_2O)** concentrations began to rise in the atmosphere at the beginning of the industrial revolution. N_2O can be transported into the stratosphere, be deposited on the Earth's surface, and be converted to other compounds by chemical reaction. N_2O is produced by microbial processes in soil and water, including reactions that occur in nitrogen-containing fertilizer. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. N_2O also is used as an aerosol spray propellant, as a preservative in potato chip bags, and in rocket engines and in race cars. Also, known as laughing gas, N_2O is a colorless GHG that can cause dizziness, euphoria, and hallucinations. In small doses, it is considered harmless; however, heavy and extended use can cause brain damage. (Urban Crossroads, 2023c, pp. 16-17)

- **Chlorofluorocarbons (CFCs)** are gases formed synthetically by replacing all hydrogen atoms in CH_4 or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are non-toxic, non-flammable, insoluble and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs were first synthesized in 1928 and have no natural source. CFCs were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and has been extremely successful, so much so that levels of CFCs are now remaining steady or declining. However, due to their long atmospheric lifetime, some of the CFCs will remain in the atmosphere for over 100 years. (Urban Crossroads, 2023c, pp. 17-18)

- **Hydrofluorocarbons (HFCs)** are synthetic, man-made chemicals that are used as a substitute for CFCs and have one of the highest global warming potential ratings. The HFCs with the largest measured atmospheric abundances are (in order largest to smallest), HFC-23 (CHF_3), HFC-134a (CF_3CH_2F), and HFC-152a (CH_3CHF_2). No human health effects are known to result from exposure to HFCs, which are man-made and used for applications such as automobile air conditioners and refrigerants. (Urban Crossroads, 2023c, p. 18)

- **Perfluorocarbons (PFCs)** are primarily produced for aluminum production and semiconductor manufacture. PFCs have stable molecular structures and do not break down through chemical processes in the lower atmosphere. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). No human health effects are known to result from exposure to PFCs. (Urban Crossroads, 2023c, p. 18)

- **Sulfur Hexafluoride (SF_6)** is an inorganic, odorless, colorless, nontoxic, nonflammable gas. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing. (Urban Crossroads, 2023c, pp. 18-19)

- **Nitrogen Trifluoride (NF_3)** is a colorless gas with a distinctly moldy odor. The World Resources Institute (WRI) indicates that NF_3 has a 100-year GWP of 17,200. NF_3 is used in industrial processes and is

produced in the manufacturing of semiconductors, Liquid Crystal Display (LCD) panels, types of solar panels, and chemical lasers. Long-term or repeated exposure may affect the liver and kidneys and may cause fluorosis. (EPA, 2022a) (Urban Crossroads, 2023c, p. 19)

C. Greenhouse Gas Emissions Inventory

1. United States

According to the U.S. EPA, in 2019, GHG emissions in the U.S. totaled 6,558 million metric tons of carbon dioxide equivalents (MT CO2e), or 5,769 million MT CO2e after accounting for sequestration from the land sector. Emissions decreased from 2018 to 2019 by 1.7% (after accounting for sequestration from the land sector). This decrease was driven largely by a decrease in emissions from fossil fuel combustion resulting from a decrease in total energy use in 2019 compared to 2018 and a continued shift from coal to natural gas and renewables in the electric power sector. In 2019 U.S. GHG emissions were 13% below 2005 levels. (Urban Crossroads, 2023c, p. 21)

2. State of California

Based on the most recent GHG inventory data compiled by the CARB, California emitted an average of approximately 418.2 million metric tons (MMT) CO_2e per year between 2000-2019. This total represents approximately six (6) percent of the GHGs generated by the United States. (Urban Crossroads, 2023c, p. 21)

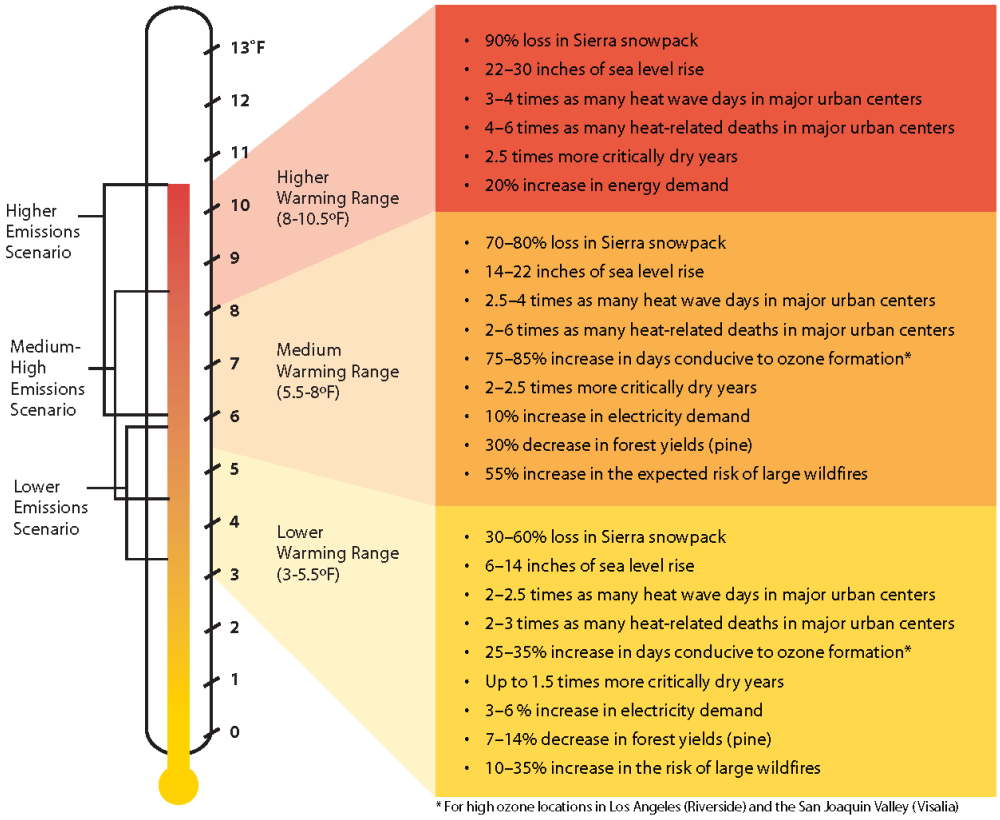
A. Potential Effects of Climate Change in California

In 2006, the California Climate Change Center (CCCC) published a report titled "Scenarios of Climate Change in California: An Overview" (the "Climate Scenarios report") that is generally instructive about effects of climate change in California. The Climate Scenarios report used a range of emissions scenarios developed by the IPCC to project a series of potential warming ranges (i.e., temperature increases) that may occur in California during the 21st century: lower warming range (3.0-5.4°F); medium warming range (5.5-7.8°F); and higher warming range (8.0-10.4°F). (CCCC, 2006, p. 7)

In 2009, the California Natural Resources Agency adopted the "California Climate Adaptation Strategy." This report details many vulnerabilities arising from climate change with respect to matters such as temperature extremes, sea level rise, wildfires, floods and droughts and precipitation changes, and responds to the Governor's Executive Order (EO) S-13-2008 that called on state agencies to develop California's strategy to identify and prepare for expected climate impacts. (CRNA, 2021, p. 3)

Based on the estimated scenarios presented in the Climate Scenario and California Climate Adaption Strategy reports, Table 4.7-2*, Summary of Projected Global Warming Impact, 2070-2099*, presents potential impacts of GCC within California.

Table 4.7-2 Summary of Projected Global Warming Impact, 2070-2099



Source: (Urban Crossroads, 2023c, Exhibit 2-A)

The potential effects of climate change in California are summarized below and include, but are not limited to, the following:

- **Human Health Effects.** Climate change can affect the health of Californians by increasing the frequency, duration, and intensity of conditions conducive to air pollution formation, oppressive heat, and wildfires. The primary concern is not the change in average climate, but rather the projected increase in extreme conditions that are responsible for the most serious health consequences. In addition, climate change has the potential to influence asthma symptoms and the incidence of infectious disease. (CCCC, 2006, p. 26)

- **Water Resource/Supply Effects.** Although most climate model simulations predict relatively moderate changes in precipitation over the 21st century, rising temperatures are expected to lead to diminishing snow accumulation in mountainous watersheds, including the Sierra Nevada. Warmer conditions during the last few decades across the western United States have already produced a shift toward more precipitation falling as rain instead of snow, and snowpacks over the region have been melting earlier in the spring. Delays in snow accumulation and earlier snowmelt can have cascading effects on water supplies, natural ecosystems, and winter recreation. (CCCC, 2006, p. 14)

- **Agriculture Effects.** Agriculture, along with forestry, is the sector of the California economy that is most likely to be affected by a change in climate. California agriculture is a $68 billion industry. California is the largest agricultural producer in the nation and accounts for 13% of all U.S. agricultural sales, including half of the nation's total fruits and vegetables. Regional analyses of climate trends over agricultural regions of California suggest that climate change is already affecting the agriculture industry. Over the period 1951 to 2000, the growing season has lengthened by about a day per decade, and warming temperatures resulted in an increase of 30 to 70 growing degree days per decade, with much of the increase occurring in the spring. Climate change affects agriculture directly through increasing temperatures and rising CO2 concentrations, and indirectly through changes in water availability and pests. (CCCC, 2006, p. 19)

- **Forest and Landscape Effects.** Climate changes and increased CO2 concentrations are expected to alter the extent and character of forests and other ecosystems. The distribution of species is expected to shift; the risk of climate-related disturbance such as wildfires, disease, and drought is expected to rise; and forest productivity is projected to increase or decrease – depending on species and region. In California, these ecological changes could have measurable implications for both market (e.g., timber industry, fire suppression and damages costs, public health) and nonmarket (e.g., ecosystem services) values. (CCCC, 2006, p. 22)

- **Sea Level Effects.** Coastal observations and global model projections indicate that California's open coast and estuaries will experience rising sea levels during the next century. Sea level rise already has affected much of the coast in southern California, Central California, and the San Francisco Bay and estuary. These historical trends, quantified from a small set of California tide gages, have approached 0.08 inches per year (in/yr), which are rates very similar to those estimated for global mean sea level. So far, there is little evidence that the rate of rise has accelerated, and indeed the rate of rise at California tide gages has actually flattened since about 1980. However, projections indicate that substantial sea level rise, even faster than the historical rates, could occur during the next century. Sea level rise projections range from 5.1–24.4 inches (in.) higher than the 2000 sea level for simulations under the lower emissions scenario, from 7.1–29.9 in. for the medium-high emission scenario, and from 8.5–35.2 in. for the higher emissions scenario. (CCCC, 2006, p. 10)

4.7.2 Regulatory Setting

The following is a brief description of the federal, state, and local environmental laws and related regulations related to GHG emissions.

A. International Plans, Policies, and Regulations

1. Kyoto Protocol

The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change, which commits its Parties by setting internationally binding emission reduction targets (UNFCCC, n.d.). Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

The Kyoto Protocol was adopted in Kyoto, Japan, on December 11, 1997 and entered into force on February 16, 2005. The detailed rules for the implementation of the Protocol were adopted at Conference of the Parties (COP) 7 in Marrakesh, Morocco, in 2001, and are referred to as the "Marrakesh Accords." Its first commitment period started in 2008 and ended in 2012.

On December 8, 2012, in Doha, Qatar, the "Doha Amendment to the Kyoto Protocol" was adopted. The amendment includes:

- New commitments for Annex I Parties to the Kyoto Protocol who agreed to take on commitments in a second commitment period from January 1, 2013 to December 31, 2020;
- A revised list of greenhouse gases (GHG) to be reported on by Parties in the second commitment period; and
- Amendments to several articles of the Kyoto Protocol which specifically referenced issues pertaining to the first commitment period and which needed to be updated for the second commitment period.

During the first commitment period, 37 industrialized countries and the European Community committed to reduce GHG emissions to an average of five percent against 1990 levels. During the second commitment period, Parties committed to reduce GHG emissions by at least 18 percent below 1990 levels in the eight-year period from 2013 to 2020; however, the composition of Parties in the second commitment period is different from the first.

2. The Paris Agreement

The Paris Agreement entered into force on November 4, 2016. The Paris Agreement brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so. As such, it charts a new course in the global climate effort.

The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (UNFCCC, n.d.). Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change. To reach these ambitious goals, appropriate financial flows, a new technology framework and an enhanced capacity building framework will be put in place, thus supporting action by developing countries and the most vulnerable countries, in line with their own national objectives. The Agreement also provides for enhanced transparency of action and support through a more robust transparency framework.

The Paris Agreement requires all Parties to put forward their best efforts through "nationally determined contributions" (NDCs) and to strengthen these efforts in the years ahead. This includes requirements that all Parties report regularly on their emissions and on their implementation efforts.

On June 1, 2017, President Donald Trump announced he would begin the process of withdrawing the United States from the Paris Agreement. In accordance with articles within the Paris Agreement, the earliest effective date for the United States' withdrawal from the Agreement was November 4, 2020, at which time the withdraw

became official. On January 20, 2021, President Biden signed the executive order for the United States to rejoin the Paris Agreement, which became official on February 19, 2021.

B. Federal Plans, Policies, and Regulations

1. Clean Air Act

Coinciding with the 2009 meeting of international leaders in Copenhagen, on December 7, 2009, the EPA issued an Endangerment Finding under § 202(a) of the Clean Air Act (CAA), opening the door to federal regulation of GHGs (EPA, 2022a; DOJ, 2021). The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the CAA. To date, the EPA has not promulgated regulations on GHG emissions, but it has begun to develop them.

Previously the EPA had not regulated GHGs under the CAA because it asserted that the Act did not authorize it to issue mandatory regulations to address Global Climate Change (GCC) and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In *Massachusetts v. Environmental Protection Agency et al.* (127 S. Ct. 1438 [2007]); however, the U.S. Supreme Court held that GHGs are pollutants under the CAA and directed the EPA to decide whether the gases endangered public health or welfare. The EPA had also not moved aggressively to regulate GHGs because it expected Congress to make progress on GHG legislation, primarily from the standpoint of a cap-and-trade system. However, proposals circulated in both the House of Representative and Senate have been controversial and it may be some time before the U.S. Congress adopts major climate change legislation. The EPA's Endangerment Finding paves the way for federal regulation of GHGs with or without Congress.

C. State Plans, Policies, and Regulations

1. Title 24 Building Energy Standards

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The 2022 version of Title 24 was adopted by the CEC and became effective on January 1, 2023 (CEC, 2022).

Part 11 of Title 24 is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality." The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and

adopted by the California Building Standards Commission (CBSC). Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code.

As previously stated, the Title 24 Energy Efficiency Standards and CALGreen Code are updated on a regular basis, with the most recent approved updates consisting of the 2022 Energy Efficiency Standards and 2022 CALGreen Code, which became effective on January 1, 2023. Non-residential mandatory measures included in the 2022 CALGreen Code include:

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).

- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).

- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).

- EV charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106. 5.3.3 (5.106.5.3). Additionally, Table 5.106.5.4.1 specifies requirements for the installation of raceway conduit and panel power requirements for medium- and heavy-duty electric vehicle supply equipment for warehouses, grocery stores, and retail stores.

- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight and glare ratings per Table 5.106.8 (5.106.8).

- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1. 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).

- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reuse or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).

- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling,

including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).

- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
    - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1)
    - Urinals. The effective flush volume of wall-mounted urinals shall not exceed
    - 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor- mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).
    - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combine flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).
    - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).
- Outdoor potable water uses in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent (5.304.1).
- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 sf or for excess consumption where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day (GPD) (5.303.1.1 and 5.303.1.2).
- Outdoor water uses in rehabilitated landscape projects equal or greater than 2,500 sf. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit (5.304.3).
- Commissioning. For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2).

2. *California Assembly Bill No. 1493 (AB 1493)*

AB 1493 required the CARB to adopt the nation's first GHG emission standards for automobiles (CARB, n.d.). On September 24, 2009, CARB adopted amendments to the "Pavley" regulations that reduce greenhouse gas (GHG) emissions in new passenger vehicles from model year 2009 through 2016. These amendments were part of California's commitment toward a nation-wide program to reduce new passenger vehicle GHGs from 2012 through 2016. CARB's September amendments cement California's enforcement of the Pavley rule starting in 2009 while providing vehicle manufacturers with new compliance flexibility. The amendments also prepare California to harmonize its rules with the federal rules for passenger vehicles.

The U.S. EPA granted California the authority to implement GHG emission reduction standards for new passenger cars, pickup trucks, and sport utility vehicles on June 30, 2009. The first California request to implement GHG standards for passenger vehicles, known as a waiver request, was made in December 2005, and was denied by the EPA in March 2008. That decision was based on a finding that California's request to reduce GHG emissions from passenger vehicles did not meet the CAA requirement of showing that the waiver was needed to meet "compelling and extraordinary conditions." With the granting of the waiver, it is estimated that the Pavley regulations reduced GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016, all while improving fuel efficiency and reducing motorists' costs.

The CARB has adopted a new approach to passenger vehicles – cars and light trucks – by combining the control of smog-causing pollutants and greenhouse gas emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emission vehicles in California.

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3. *Executive Order S-3-05*

Executive Order (EO) S-3-05 documents GHG emission reduction goals, creates the Climate Action Team and directs the Secretary of the California EPA to coordinate efforts with meeting the GHG reduction targets with the heads of other state agencies (CA State Library, 2005). The EO requires the Secretary to report back to the Governor and Legislature biannually to report: progress toward meeting the GHG goals; GHG impacts to California; and applicable Mitigation and Adaptation Plans. EO S-3-05 documents goals for GHG emissions reductions include: reducing GHG emissions to 2000 levels by the year 2010; reducing GHG emissions to 1990 levels by the year 2020; and reducing GHG emissions to 80 percent below 1990 levels by 2050.

4. *California Assembly Bill 32 – Global Warming Solutions Act of 2006*

In September 2006, Governor Schwarzenegger signed Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020, which represents a reduction of approximately 15 percent below emissions expected under a "business as usual" scenario (CARB, 2018). Pursuant to AB 32, the CARB must adopt regulations to achieve the

maximum technologically feasible and cost-effective GHG emission reductions. The full implementation of AB 32 will help mitigate risks associated with climate change, while improving energy efficiency, expanding the use of renewable energy resources, cleaner transportation, and reducing waste.

AB 32 specifically required that CARB do the following:

- Prepare and approve a Scoping Plan for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions from sources or categories of sources of GHGs by 2020, and update the Scoping Plan every five years.
- Maintain and continue reductions in emissions of GHG beyond 2020.
- Identify the statewide level of GHG emissions in 1990 to serve as the emissions limit to be achieved by 2020.
- Identify and adopt regulations for discrete early actions that could be enforceable on or before January 1, 2010.
- Adopt a regulation that establishes a system of market-based declining annual aggregate emission limits for sources or categories of sources that emit GHG emissions.
- Convene an Environmental Justice Advisory Committee to advise the Board in developing and updating the Scoping Plan and any other pertinent matter in implementing AB 32.
- Appoint an Economic and Technology Advancement Advisory Committee to provide recommendations for technologies, research, and GHG emission reduction measures.

In November 2007, CARB completed its estimated calculations of Statewide 1990 GHG levels. Net emission 1990 levels were estimated at 427 MMTs; emission sources by sector were: transportation – 35 percent; electricity generation – 26 percent; industrial – 24 percent; residential – seven (7) percent; agriculture – five (5) percent; and commercial – three (3) percent. Accordingly, 427 MMTs of carbon dioxide equivalent ($MMTCO_2e$) was established as the emissions limit for 2020. For comparison, CARB's estimate for baseline GHG emissions was 473 $MMTCO_2e$ for 2000 and "business as usual" (without GHG reductions measures) GHG emissions were projected to be 532 $MMTCO_2e$ in 2010 and 596 $MMTCO_2e$ in 2020. (CARB, 2007)

AB 32 required CARB to develop a Scoping Plan which lays out California's strategy for meeting the goals. The Scoping Plan must be updated every five years. In December 2008, CARB approved the initial Scoping Plan, which included a suite of measures to sharply cut GHG emissions. Table 4.7-3, *Scoping Plan GHG Reduction Measures Towards 2020 Target*, shows the proposed reductions from regulations and programs outlined in the Scoping Plan. CARB's original determination was that to achieve the 1990 emission level in 2020 a reduction in GHG emissions of approximately 28.5 percent would be needed in the absence of new laws and regulations. The Scoping Plan evaluated opportunities for sector-specific reductions, integrates all CARB and Climate Action Team (CAT) early actions and additional GHG reduction measures, identifies additional measures to be pursued as regulations, and outlines the role of the cap-and-trade program.

When the 2020 emissions level projection was updated to account for regulatory measures in effect, the 2020 projection in the "business as usual" condition was reduced to 507 $MMTCO_2e$. As a result, CARB determined that achieving the 1990 emissions level in 2020 would now only require a reduction of GHG emissions of 80

$MMTCO_2e$, or approximately 16 percent from the "business as usual" condition (down from the original estimate of 28.5 percent).

In May 2014, CARB approved the First Update to the Climate Change Scoping Plan (Update), which builds upon the initial Scoping Plan with new strategies and recommendations. The Update highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals, highlights the latest climate change science and provides direction on how to achieve long-term emission reduction goal described in Executive Order S-3-05. The Update recalculates 1990 GHG emissions using new global warming potentials identified in the IPCC Fourth Assessment Report released in 2007. Based on the revised emissions level projections, achieving the 1990 emissions level in 2020 would require a reduction of 78 $MMTCO_2e$, or approximately 15.3 percent from the "business as usual" condition (down, again, from the original estimate 28.5 percent). (CARB, 2018; CARB, 2017)

In December 2017, CARB adopted the Second Update to the Scoping Plan, which identifies the State's post-2020 reduction strategy. The Second Update reflects the 2030 target of a 40 percent GHG emissions reduction below 1990 levels set by SB 32. The Second Update builds upon the Cap- and-Trade Regulation; the Low Carbon Fuel Standard; much cleaner cars, trucks and freight movement; cleaner, renewable energy; and strategies to reduce methane emissions from agricultural and other wastes to reduce GHG emissions. (CARB, 2017)

In December 2022, CARB released the *Final 2022 Scoping Plan Update* (*2022 Scoping Plan*), which identifies the State's strategies to reduce GHG emissions by 85% and achieve carbon neutrality by 2045. The *2022 Scoping Plan* reflects an accelerated target of an 85% reduction in GHG emissions compared to 1990 levels by 2045 (33). This third update relies on key programs in place, including the Cap-and-Trade Regulation and the LCFS, while stressing the need to increase their pace and scale. (Urban Crossroads, 2023c, p. 29)

In order to meet these targets, the *2022 Scoping Plan* would require contributions from all sectors of the economy and includes an enhanced focus on reducing fossil fuel demand by 94% by 2045 compared to 2022 consumption. Major elements of the *2022 Scoping Plan* framework include: (Urban Crossroads, 2023c, pp. 29-30)

- Maintaining progress on meeting SB 32 GHG reduction targets of at least 40% below 1990 emissions by 2030.
- Implementation of strategies for reducing California's dependence on petroleum by providing consumers with clean energy options.
- Integrating equity and protecting California's most impacted communities.
- Incorporation of natural and working lands to the state's GHG emissions, as well as their role in achieving carbon neutrality.
- Use of all viable tools to address climate change, including carbon capture and sequestration, as well as direct air capture.
- Implementing SB 350, which expands the RPS to 50% RPS and doubles energy efficiency savings by 2030.
- Post-2020 Cap-and-Trade Program that includes declining caps.

Table 4.7-3 Scoping Plan GHG Reduction Measures Towards 2020 Target

Recommended Reduction Measures	*Reductions Counted toward 2020 Target of 169 MMT CO2e*	*Percentage of Statewide 2020 Target*
Cap and Trade Program and Associated Measures		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets[1]	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	146.7	87%
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	27.3	16%
Total Reductions Counted toward 2020 Target	174	100%
Other Recommended Measures – Not Counted toward 2020 Target		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined[2]	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted toward 2020 Target	42.8	NA

Source: CARB. 2008, MMTons CO2e: million metric tons of CO2e
[1]Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.
[2]According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO2e (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 Target

- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy (SLPS), which focuses on reducing CH4 and HCF emissions by 40% and anthropogenic black carbon emissions by 50% by year 2030.
- Continued implementation of SB 375.

- 20% reduction in GHG emissions from refineries by 2030.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

In addition to the statewide strategies listed above, the 2022 Scoping Plan also identifies local governments as essential partners in achieving the State's long-term GHG reduction goals and identifies local actions to reduce GHG emissions. As part of the previous 2017 Scoping Plan, CARB recommended that local governments achieve a community-wide goal to achieve emissions of no more than 6 metric tons of CO2e (MTCO2e) or less per capita by 2030 and 2 MTCO2e or less per capita by 2050. However, because the state is now pursuing carbon neutrality no later than 2045, CARB now recommends that local governments instead focus on developing locally appropriate, plan-level targets that align with the goal of carbon neutrality rather than focusing on a 2050 target. CARB identifies several "priority areas," including transportation electrification, VMT reduction, and building decarbonization, as these are the GHG reduction opportunities over which local governments have the most authority and the highest GHG reduction potential. (Urban Crossroads, 2023c, p. 30)

5. California Senate Bill No. 1368 (SB 1368)

In 2006, the State Legislature adopted Senate Bill (SB) 1368 (Perata, Chapter 598, Statutes of 2006), which directs the California Public Utilities Commission (CPUC) to adopt a GHG emission performance standard (EPS) for the future power purchases of California utilities (CEC, n.d.). SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed specified emissions criteria. Accordingly, SB 1368 effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. SB 1368 will lead to dramatically lower GHG emissions associated with California energy demand.

6. Executive Order S-01-07

Executive Order (EO) S-01-07 is effectively known as the Low Carbon Fuel Standard (LCFS). The Executive Order seeks to reduce the carbon intensity of California's passenger vehicle fuels by at least 10 percent by 2020 (CA State Library, 2007). The LCFS requires fuel providers in California to ensure that the mix of fuel they sell into the California market meet, on average, a declining standard for GHG emissions measured in CO_2e grams per unit of fuel energy sold.

7. Senate Bill 1078

Senate Bill (SB) 1078 establishes the California Renewables Portfolio Standard Program, which requires electric utilities and other entities under the jurisdiction of the California Public Utilities Commission to meet 20% of their renewable power by December 31, 2017 for the purposes of increasing the diversity, reliability, public health, and environmental benefits of the energy mix. (CA Legislative Info, n.d.)

8. Senate Bill 107

SB 107 directed California Public Utilities Commission's Renewable Energy Resources Program to increase the amount of renewable electricity (Renewable Portfolio Standard) generated per year, from 17% to an amount that equals at least 20% of the total electricity sold to retail customers in California per year by December 31, 2010. (CA Legislative Info, n.d.)

9. Executive Order S-14-08

On November 17, 2008, Governor Schwarzenegger signed Executive Order S-14-08, revising California's existing Renewable Portfolio Standard (RPS) upward to require all retail sellers of electricity to serve 33% of their load from renewable energy sources by 2020 (CA State Library, 2008). In order to meet this new goal, a substantial increase in the development of wind, solar, geothermal, and other "RPS eligible" energy projects will be needed. Executive Order S-14-08 seeks to accelerate such development by streamlining the siting, permitting, and procurement processes for renewable energy generation facilities. To this end, S-14-08 issues two directives: (1) the existing Renewable Energy Transmission Initiative will identify renewable energy zones that can be developed as such with little environmental impact, and (2) the California Energy Commission (CEC) and the California Department of Fish and Wildlife (CDFW) will collaborate to expedite the review, permitting, and licensing process for proposed RPS-eligible renewable energy projects.

10. Senate Bill 97

By enacting SB 97 in 2007, California's lawmakers expressly recognized the need to analyze GHGs as a part of the CEQA process. SB 97 required the Governor's Office of Planning and Research (OPR) to develop, and the Natural Resources Agency to adopt, amendments to the CEQA Guidelines addressing the analysis and mitigation of greenhouse gas emissions (CA Legislative Info, n.d.). Those CEQA Guidelines amendments clarified several points, including the following:

- Lead agencies must analyze the GHG emissions of proposed projects, and must reach a conclusion regarding the significance of those emissions. (See CEQA Guidelines § 15064.4.)
- When a project's GHG emissions may be significant, lead agencies must consider a range of potential mitigation measures to reduce those emissions. (See CEQA Guidelines § 15126.4(c).)
- Lead agencies must analyze potentially significant impacts associated with placing projects in hazardous locations, including locations potentially affected by climate change. (See CEQA Guidelines § 15126.2(a).)
- Lead agencies may significantly streamline the analysis of GHGs on a project level by using a programmatic GHG emissions reduction plan meeting certain criteria. (See CEQA Guidelines § 15183.5(b).)
- CEQA mandates analysis of a proposed project's potential energy use (including transportation-related energy), sources of energy supply, and ways to reduce energy demand, including through the use of efficient transportation alternatives. (See CEQA Guidelines, Appendix F.)

The CEQA Guideline amendments do not identify a quantitative threshold of significance for GHG emissions, nor do they prescribe assessment methodologies or specific mitigation measures. Instead, they call for a "good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." The amendments encourage lead agencies to consider many factors in

performing a CEQA analysis and preserve lead agencies' discretion to make their own determinations based upon substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. The GHG analysis thresholds incorporated into the CEQA Guidelines' Environmental Checklist (Guidelines Appendix G) are addressed in this EIR. The amendments to the CEQA Guidelines implementing SB 97 became effective on March 18, 2010.

11. Senate Bill 375

The Sustainable Communities and Climate Protection Act of 2008 (Sustainable Communities Act, SB 375, Chapter 728, Statutes of 2008) supports the State's climate action goals to reduce greenhouse gas (GHG) emissions through coordinated transportation and land use planning with the goal of more sustainable communities (CARB, n.d.). Under the Sustainable Communities Act, CARB sets regional targets for GHG emissions reductions from passenger vehicle use. In 2010, CARB established these targets for 2020 and 2035 for each region covered by one of the State's metropolitan planning organizations (MPO). CARB will periodically review and update the targets, as needed.

Each of California's MPOs must prepare a "sustainable communities strategy" (SCS) as an integral part of its regional transportation plan (RTP). The SCS contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet its GHG emission reduction targets. Once adopted by the MPO, the RTP/SCS guides the transportation policies and investments for the region. CARB must review the adopted SCS to confirm and accept the MPO's determination that the SCS, if implemented, would meet the regional GHG targets. If the combination of measures in the SCS would not meet the regional targets, the MPO must prepare a separate "alternative planning strategy" (APS) to meet the targets.

The Sustainable Communities Act also establishes incentives to encourage local governments and developers to implement the SCS or the APS. Developers can get relief from certain environmental review requirements under CEQA if their new residential and mixed-use projects are consistent with a region's SCS (or APS) that meets the targets (see Cal. Public Resources Code Sections 21155, 21155.1, 21155.2, 21159.28.).

12. Executive Order B-30-15

On April 29, 2015, Governor Brown issued Executive Order B-30-15, which sets a goal to reduce GHG emissions in California to 40 percent below 1990 levels by 2030 (CA State Library, 2015). The 2030 target serves as a benchmark goal on the way to achieving the GHG reductions goal set by Governor Schwarzenegger via Executive Order S-3-05 (i.e., 80 percent below 1990 greenhouse gas emissions levels by 2050).

13. Senate Bill 32

On September 8, 2016, Governor Brown signed the Senate Bill (SB) 32. SB 32 requires the State to reduce statewide GHG emissions to 40 percent below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15 (CA Legislative Info, n.d.). The new legislation builds upon the AB 32 goal of 1990 levels by 2020 and provides an intermediate goal to achieving S-3-05, which sets a statewide greenhouse gas reduction target of 80 percent below 1990 levels by 2050.

14. California Climate Crisis Act (AB 1279)

AB 1279, also known as the California Climate Crisis Act, declares that it is the policy of the State to achieve net zero greenhouse gas emissions as soon as possible, but no later than 2045; to achieve and maintain net negative greenhouse gas emissions thereafter; and to ensure that by 2045, Statewide anthropogenic greenhouse gas emissions are reduced to at least 85% below the 1990 levels. The bill requires the California Air Resources Board (CARB) to work with relevant State agencies to ensure that updates to the CARB Scoping Plan identify and recommend measures to achieve these policy goals and to identify and implement a variety of policies and strategies that enable carbon dioxide removal solutions and carbon capture, utilization, and storage technologies in California. AB 1279 also requires CARB to submit an annual report evaluating progress towards these policies. (CA Legislative Info, n.d.)

15. Clean Energy, Jobs, and Affordability Act of 2022 (Senate Bill 1020)

SB 1020, also known as the Clean Energy, Jobs, and Affordability Act of 2022, revised State policy to include interim targets requiring that eligible renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to California end-use customers by December 31, 2035, 95 percent of all retail sales of electricity to California end-use customers by December 31, 2040, 100 percent of all retail sales of electricity to California end-use customers by December 31, 2045, and 100 percent of electricity procured to serve all state agencies by December 31, 2035. SB 1020 also requires each State agency to ensure that zero-carbon resources and eligible renewable energy resources supply 100 percent of electricity procured to serve their agency by December 31, 2035. In addition, SB 1020 requires the State Water Project (SWP) to procure eligible renewable energy and zero-carbon resources as necessary to meet the clean energy requirements specified for all State agencies. Finally, SB 1020 requires the California Public Utilities Commission (CPUC) to develop utility affordability metrics for both electricity and gas service. (CA Legislative Info, n.d.)

16. Carbon sequestration: Carbon Capture, Removal, Utilization, and Storage Program (Senate Bill 905)

SB 905 requires CARB to establish a Carbon Capture, Removal, Utilization, and Storage (CCRUS) Program and adopt regulations for a model unified permit program for the construction and operation of CCRUS projects. SB 905 is intended to accelerate the deployment of carbon management technologies and ensuring they are deployed in a safe and equitable way. SB 905 requires the CCRUS Program to ensure that carbon dioxide capture, removal, and sequestration projects include specified components including, among others, certain monitoring activities. In addition, SB 905 requires that by January 1, 2025, CARB shall adopt regulations for a unified permit application for the construction and operation of carbon dioxide capture, removal, or sequestration projects to expedite the issuance of permits or other authorizations for the construction and operation of those projects. SB 905 also requires the establishment of a centralized public database to track the deployment of carbon capture, utilization, or storage (CCUS) technologies and carbon dioxide removal (CDR) technologies. (CA Legislative Info, n.d.)

17. Assembly Bill 1757

AB 1757 directs the California Natural Resources Agency (CNRA) to determine an ambitious range of targets for natural carbon sequestration, and for nature-based climate solutions, that reduce GHG emissions for 2030,

2038, and 2045 to support State goals to achieve carbon neutrality and foster climate adaptation and resilience. Additionally, AB 1757 requires these targets to be integrated into the CARB Scoping Plan and other State policies. It also includes provisions to avoid double counting emission reductions, updates the Natural and Working Lands Climate Smart Strategy, develops GHG tracking protocols, and biennially post progress made in achieving the targets on CNRA's internet website. In addition, AB 1757 requires CARB to develop standard methods for State agencies to consistently track greenhouse gas emissions and reductions, carbon sequestration, and, where feasible, additional benefits from natural and working lands over time. (CA Legislative Info, n.d.)

D. Local Plans, Policies, and Regulations

1. County of Orange and Orange County Fire Authority Local Hazard Mitigation Plan

The County of Orange and Orange County Fire Authority Local Hazard Mitigation Plan (LHMP) was developed to promote sound public policy designed to protect residents, critical facilities, infrastructure, key resources, private property, and the environment from natural hazards and fire hazards. The most current version of the LHMP is dated December 2021 (Orange County, 2021). The LHMP is a multi-jurisdiction plan developed jointly between the County of Orange, a local government, and the Orange County Fire Authority, a Joint Powers Authority. The collaborative plan focuses on mitigating all natural hazards including flooding that impact unincorporated areas of the County as well as County and Orange County Fire Authority owned facilities.

4.7.3 Methodology for Estimating Greenhouse Gas Emissions

The California Emission Estimator Model (CalEEMod, v2022.1, released in May 2022), developed by the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the SCAQMD and air pollution control districts across the State, was used to quantify GHG emissions from Project-related construction and operational activities (Urban Crossroads, 2023c, p. 41). CalEEMod is the software analysis tool recommended by SCAQMD for the quantification of GHG emissions associated with the construction and operation of land development projects because it is the only software model maintained by CAPCOA and incorporates locally-approved emission factors and methodologies for estimating pollutant emissions. Inputs and outputs from the model runs for Project-related construction and operational activities are provided Appendices 3.1 and 3.2 of the Project's GHGA (*Technical Appendix E*).

Although CalEEMod is a comprehensive analysis tool, CalEEMod is limited to quantifying GHG emissions that are known as of the date of release of the model, there may be sources of GHG emissions that are not known (or not quantifiable) at this time but may be measurable by the time the Project is constructed and operational. Furthermore, CalEEMod relies on data published by the CARB and other data sources to be representative of local/regional averages which may not be completely representative of the Project's construction and/or operational characteristics (and may slightly underestimate or overestimate the Project's emissions). Lastly, not all the CalEEMod calculation data files are known or publicly available for review, although it is reasonable to assume that the data contained in CalEEMod is accurate and grounded in science because CalEEMod is developed by CAPCOA in collaboration with 35 local air pollution control districts.

A life-cycle analysis (LCA), which assesses economy-wide GHG emissions from construction (i.e., the processes in manufacturing and transporting all raw materials used in the project development and infrastructure) and operation, was not conducted for the Project due to the lack of scientific consensus on LCA methodology. A LCA depends on emission factors or econometric factors that are not well established for all processes as of the date the NOP for this EIR was published. Additionally, SCAQMD recommends analyzing a project's direct and indirect GHG emissions generated within California in-lieu of an LCA because a project's life-cycle effects could extend beyond California and these effects might not be well understood or well documented and/or infeasible to mitigate. (Urban Crossroads, 2023c, pp. 41-42)

A. Methodology for Estimating Project-Related Construction Emissions

The Projects' construction-related GHG emissions were calculated using the same methodology, construction schedule information, and equipment fleet information that were used to calculate construction-related criteria air pollutant emissions, and as previously described in detail in EIR Subsection 4.2, *Air Quality* (Urban Crossroads, 2023c, p. 42). Refer to EIR Subsection 3.5 and the Project's GHGA (see *Technical Appendix E*) for a detailed description of the methodology used to calculate the Project's construction GHG emissions.

In accordance with the SCAQMD recommendations, the Project's construction-related GHG emissions were quantified, amortized over a 30-year period, and then added to the sum of the Project's annual operational GHG emissions. (Urban Crossroads, 2023c, p. 43)

B. Methodology for Estimating Project-Related Operational Emissions

The Project's operational GHG emissions were calculated using the same methodology that was used to calculate operational criteria air pollutant emissions, and as previously described in detail in EIR Subsection 4.2, *Air Quality* (Urban Crossroads, 2023c, p. 44). Refer to EIR Subsection 3.6 and the Project's GHGA (see *Technical Appendix E*) for a detailed description of the methodology used to calculate the Project's operational GHG emissions.

4.7.4 Basis for Determining Significance

The thresholds listed below are derived directly from Appendix G to the CEQA Guidelines and address a development project's potential to result in significant impacts due to GHG emissions. Neither the CEQA Statute nor the CEQA Guidelines prescribe specific methodologies and significance criteria for determining the significance of GHG emissions impacts. The CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate thresholds consistent with the manner in which other impact categories are handled in CEQA. CEQA case law has upheld local agencies' discretion to determine the significance of GHG emissions impacts. The proposed Project would result in a significant impact to greenhouse gas emissions if the Project or any Project-related component would:

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

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

As part of the November, 30, 2015, decision in *Center for Biological Diversity v. California Department of Fish and Wildlife ("Newhall Ranch")*, the California Supreme Court outlined four potential pathways that CEQA compliance documents could use to determine if GHG emissions from a specific project would be significant under Threshold "a":

1. Substantiation of Project Reductions from "Business as Usual" (BAU). A lead agency may use a BAU comparison based on the CARB Scoping Plan's methodology if it also substantiates the reduction a particular project must achieve to comply with statewide goals. The Court suggested a lead agency could examine the "data behind the Scoping Plan's business-as-usual model" to determine the necessary project level reductions from new land use development at the proposed location;
2. Compliance with Regulatory Programs or Performance-based Standards. A lead agency "might assess consistency with AB 32's goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities;
3. Compliance with GHG Reduction Plans or Climate Action Plans (CAPs). A lead agency may utilize "geographically specific GHG emission reduction plans" such as climate action plans or greenhouse gas emission reduction plans to provide a basis for the tiering or streamlining of project-level CEQA analysis; or
4. Compliance with Local Air District Thresholds. A lead agency may rely on "existing numerical thresholds of significance for greenhouse gas emissions" adopted by, for example, local air districts.

The City of Brea does not have an adopted threshold of significance for GHG emissions, but for CEQA purposes, the City has discretion to select an appropriate significance criterion, based on substantial evidence. To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, the SCAQMD Board adopted an Interim CEQA GHG Significance Threshold. (SCAQMD, 2008). The City has selected this value as a significance criterion which has been supported by substantial evidence. The 3,000 MTCO2e per year threshold is based on a 90 percent emission "capture" rate methodology. Prior to its use by the SCAQMD, the 90 percent emissions capture approach was one of the options suggested by the California Air Pollution Control Officers Association (CAPCOA) in their CEQA & Climate Change white paper (SCAQMD, 2008). A 90 percent emission capture rate means that unmitigated GHG emissions from the top 90 percent of all GHG-producing projects within a geographic area – the SCAB in this instance – would be subject to a detailed analysis of potential environmental impacts from GHG emissions, while the bottom 10 percent of all GHG-producing projects would be excluded from detailed analysis. A GHG significance threshold based on a 90 percent emission capture rate is appropriate to address the long-term adverse impacts associated with global climate change because medium and large projects will be required to implement measures to reduce GHG emissions, while small projects, which are generally infill development projects that are not the focus of the State's GHG reduction targets, are allowed to proceed. Further, a 90 percent emission capture rate sets the emission threshold low enough to capture a substantial proportion of future development projects and demonstrate that cumulative emissions reductions are being achieved while setting the emission

threshold high enough to exclude small projects that will, in aggregate, contribute approximate 1 percent of projected statewide GHG emissions in the Year 2050 (SCAQMD, 2008, p. 4).

In setting the threshold at 3,000 MTCO2e per year, SCAQMD researched a database of projects kept by the Governor's Office of Planning and Research (OPR). That database contained 798 projects, 87 of which were removed because they were very large projects and/or outliers that would skew emissions values too high, leaving 711 as the sample population to use in determining the 90th percentile capture rate. The SCAQMD analysis of the 711 projects within the sample population combined commercial, residential, and mixed-use projects. It should be noted that the sample of projects included warehouses and other light industrial land uses but did not include industrial processes (i.e., oil refineries, heavy manufacturing, electric generating stations, mining operations, etc.). Emissions from each of these projects were calculated by SCAQMD to provide a consistent method of emissions calculations across the sample population and from projects within the sample population. In calculating the emissions, the SCAQMD analysis determined that the 90th percentile ranged between 2,983 to 3,143 MTCO2e per year. The SCAQMD set their significance threshold at the low-end value of the range when rounded to the nearest hundred tons of emissions (i.e., 3,000 MTCO2e per year) to define small projects that are considered less than significant and do not need to provide further analysis.

The City understands that the 3,000 MTCO2e per year threshold for residential/commercial uses was proposed by SCAQMD a decade ago and was adopted as an interim policy; however, no permanent, superseding policy or threshold has since been adopted. The 3,000 MTCO2e per year threshold was developed and recommended by SCAQMD, an expert agency, based on substantial evidence as provided in the Draft Guidance Document – Interim CEQA Greenhouse Gas Significance Threshold (2008) document and subsequent Working Group meetings (latest of which occurred in 2010). SCAQMD has not withdrawn its support of the interim threshold and all documentation supporting the interim threshold remains on the SCAQMD website on a page that provides guidance to CEQA practitioners for air quality analysis (and where all SCAQMD significance thresholds for regional and local criteria pollutants and toxic air contaminants also are listed). Further, as stated by SCAQMD, this threshold "uses the Executive Order S-3-05 goal [80 percent below 1990 levels by 2050] as the basis for deriving the screening level" and, thus, remains valid for use in 2022 (SCAQMD, 2008, pp. 3-4). Lastly, this threshold has been used for hundreds, if not thousands of GHG analyses performed for projects located within the SCAQMD jurisdiction.

Thus, for purposes of analysis in this EIR, if Project-related GHG emissions do not exceed the 3,000 MTCO2e per year threshold, then Project-related GHG emissions would clearly have a less than significant impact pursuant to Threshold "a." On the other hand, if Project-related GHG emissions exceed 3,000 MTCO2e per year, the Project would be considered a substantial source of GHG emissions.

4.7.5 Impact Analysis

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

The Project would result in net (proposed Project - existing development) emissions of 998.99 $MTCO_2e$ per year, as summarized in Table 4.7-4, *Project GHG Emissions*. The GHG emission for the Project would not

exceed the significance threshold of 3,000 $MTCO_2e$ per year and, thus, GHG emissions from the Project would result in a less than significant impact on the environment.

Table 4.7-4 Project GHG Emissions

Emission Source	Emissions (MT/yr)				
	CO_2	CH_4	N_2O	R	Total CO_2e
Amortized Construction Emissions	3.97	3.33E-04	0.00E+00	6.67E-04	3.97
Mobile Source	1,274.00	0.07	0.06	2.30	1,296.00
Area Source	0.16	< 0.005	< 0.005	0.00	0.16
Energy Source	60.40	0.01	< 0.005	0.00	60.60
Water Usage	2.34	0.05	< 0.005	0.00	4.02
Waste	4.94	0.49	0.00	0.00	17.30
Refrigerants	0.00	0.00	0.00	1.14	1.14
Total CO_2e (All Sources)	**1,383.19**				
Existing Emissions	384.20				
Total Net CO_2e (All Sources)	**998.99**				

Source: (Urban Crossroads, 2023c, Table 3-5)

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

As demonstrated by the following analysis, the Project would not conflict with applicable plans, policies, and/or regulations adopted with the intent to reduce GHG emissions, including AB 32 and SB 32, SCAG's *2016-2040 RTP/SCS*, and the Title 24 CBSC, which are particularly applicable to the Project.

In April 2015, Governor signed EO B-30-15, which advocated for a statewide GHG-reduction target of 40 percent below year 1990 levels by 2030 and 80 percent below 1990 levels by 2050. In September 2016, Governor Brown signed the SB 32, which formally established a statewide goal to reduce GHG emissions to 40 percent below year 1990 levels by 2030. To date, no statutes or regulations have been adopted to translate the year 2050 GHG reduction goal into comparable, scientifically-based statewide emission reduction targets.

In November 2022, CARB released the Final 2022 Scoping Plan Update, which identifies the State's progress towards the statutory 2030 target, while providing a path towards carbon neutrality and reduced greenhouse gases emissions by 85% below 1990 levels by 2045. Recent studies show that the State's existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40% below 1990 levels by 2030. The Project would not conflict with any of the 2022 Scoping Plan elements as any regulations adopted would apply directly or indirectly to the Project. (Urban Crossroads, 2023c, p. 47)

Rendering a significance determination for year 2050 GHG emissions relative to EO B-30-15 would be speculative because EO B-30-15 establishes a goal three decades into the future; no agency with GHG subject matter expertise has adopted regulations to achieve these statewide goals at the project-level; and, available

analytical models cannot presently quantify all project-related emissions in those future years. Further, due to the technological shifts anticipated and the unknown parameters of the regulatory framework in 2050, available GHG models and the corresponding technical analyses are subject to limitations for purposes of quantitatively estimating the Project's emissions in 2050.

The *2016-2040 RTP/SCS* was prepared to ensure that the SCAG region attains the per capita vehicle miles targets for passenger vehicles identified by CARB (and, thus, meeting associated GHG emissions targets), as required by Senate Bill 375. As explained in EIR Section 4.12, *Transportation*, the Project would not conflict with applicable measures of the *2016-2040 RTP/SCS* and, therefore, would not interfere with the region's ability to minimize GHG emissions from transportation sources.

The Project Applicant proposes the demolition of four existing buildings and the redevelopment of this portion of the Project Site with two new commercial buildings. A 6,000 s.f. commercial building is proposed at the northeast corner of South Orange Avenue and Imperial Highway, which would include a 2,400 s.f. sit-down restaurant and 3,600 s.f. of retail or medical office uses. In addition, an approximate 2,000 s.f. drive-through restaurant is proposed at the northwest corner of South Flower Avenue and Imperial Highway. The proposed new buildings would include contemporary, energy-efficient/energy-conserving design features. Commercial/office land uses are not inherently energy intensive and the total Project energy demands would be comparable to, or less than, other commercial/office developments of similar scale and configuration due to the Project's modern construction and requirement to be constructed in accordance with the most recent CBSC (Urban Crossroads, 2023c, pp. 33-35). The CBSC includes the California Energy Code, or Title 24, Part 6 of the California Code of Regulations, also titled The Energy Efficiency Standards for Residential and Nonresidential Buildings. The California Energy Code was established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated approximately every three years to improve energy efficiency by allowing incorporating new energy efficiency technologies and methods. The Project would be required to comply with all applicable provisions of the CBSC. As such, the Project's energy demands would be minimized through design features and operational programs that, in aggregate, would ensure that Project energy efficiencies would comply with – or exceed – incumbent CBSC energy efficiency requirements, thereby minimizing GHG emissions produced from energy consumption.

As described on the preceding pages, implementation of the Project would not conflict with the State's ability to achieve the State-wide GHG reduction mandates and would be consistent with applicable policies and plans related to GHG emissions reductions. Implementation of the Project would not actively interfere with any future federally-, State-, or locally-mandated retrofit obligations (such as requirements to use new technologies such as diesel particulate filters, emissions upgrades to a higher tier equipment, etc.) enacted or promulgated to legally require development projects to assist in meeting State-adopted GHG emissions reduction targets, including those established under EO S-3-05, EO B-30-15, or SB 32. Therefore, the Project for would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs and would result in a less than significant impact.

4.7.6 Cumulative Impact Analysis

GCC occurs as the result of global emissions of GHGs. An individual development project does not have the potential to result in direct and significant GCC-related effects in the absence of cumulative sources of GHGs. The CEQA Guidelines emphasize that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis (See CEQA Guidelines Section 15130[f]). Accordingly, the analysis provided in Subsection 4.7.5 reflects a cumulative impact analysis of the effects related to the Project's GHG emissions which concludes that the Project would not conflict with applicable GHG-reduction plans, policies, or regulations and would not generate cumulatively-considerable GHG emissions that may have a significant impact on the environment because the Project would not exceed the SCAQMD's GHG emissions threshold of 3,000 $MTCO_2e$ per year.

4.7.7 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The Project would produce GHG emissions that would not exceed the SCAQMD significance threshold of 3,000 MTCO2e per year. As such, the Project would have a less than significant impact on the environment.

Threshold b: Less-than-Significant Impact. The Project would be consistent with or otherwise would not conflict with, applicable regulations, policies, plans, and policy goals that would further reduce GHG emissions.

4.7.8 Mitigation

Impacts to greenhouse gas emissions would be less than significant; therefore, mitigation measures are not required.

4.8 HAZARDS AND HAZARDOUS MATERIALS

This Subsection evaluates the potential for presence or absence of hazards or hazardous materials on the Project Site under existing conditions and determines whether the redevelopment activities associated with the proposed Project would cause or create a significant environmental hazard. This Subsection relies on building permit dates for the existing structures on the Project Site (Brea, 2022c), information from the Brea General Plan (Brea, 2003a), the Brea General Plan EIR (Brea, 2003b), Cal Fire – Fire Hazard Severity Zone Map (CalFire, n.d.); and Google Earth (Google Earth, 2022). All references used in this Subsection are listed in EIR Section 7.0, *References*.

In this EIR, the term "toxic substance" is defined as a substance that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may present an unreasonable risk of injury to human health or the environment. Toxic substances include chemical, biological, flammable, explosive, and radioactive substances. In this EIR, the term "hazardous material" is defined as a substance that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may: 1) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, disposed of, or otherwise mismanaged; or 2) cause or contribute to an increase in mortality or an increase in irreversible or incapacitating illness.

Hazardous waste is defined in the California Code of Regulations, Title 22, Section 66261.3. The defining characteristics of hazardous waste are: ignitability (oxidizers, compressed gases, and extremely flammable liquids and solids), corrosivity (strong acids and bases), reactivity (explosives or generates toxic fumes when exposed to air or water), and toxicity (materials listed by the U.S. Environmental Protection Agency [EPA] as capable of inducing systemic damage to humans or animals). Certain wastes are called "Listed Wastes" and are found in the California Code of Regulations, Title 22, Sections 66261.30 through 66261.35. Wastes appear on the lists because of their known hazardous nature or because the processes that generate them are known to produce hazardous wastes (which are often complex mixtures).

4.8.1 EXISTING CONDITIONS

A. Project Site

The Project Site is fully developed with six commercial/office buildings that were constructed in the 1990s. Due to their modern age, these buildings have no reasonable potential to have hazardous building materials, as asbestos, lead, and other hazardous building materials were banned from use before 1990. Historic aerial photographs of the Project Site show that the Site was previously developed as residential properties as far back as 1935 (Orange County, 2023) and that the site was redeveloped with its existing uses in the early 1990s. According to EnviroStor, no hazardous waste sites or facilities are located on the Project Site (DTSC, n.d.).

B. Surrounding Area

Several properties within a one-mile radius of the Project Site are listed on the EnviroStor database (DTSC, n.d.). These properties are listed on Table 4.8-1, *DTSC EnviroStor Sites Within One-Mile of the Project Site*, with site type information indicating the nature of the hazardous materials presence.

Table 4.8-1 DTSC EnviroStor Sites Within One-Mile of the Project Site

Site	Location	Site Type	Status
Thompson Drill Site	16500 Birch Street	Evaluation	Refer: 1248 Local Agency
Electronic Precision Specialties, Inc.	537 W. Mercury Lane	Tiered Permit	No Action Required
Petrolite Corp/Tretolite Div	200 S. Puente Street	Haz Waste	Protective Filer
Ameron, Inc.	595 West Lambert Road	Evaluation	Inactive – Needs Evaluation
C C Industries	428 Berry Way	Tiered Permit	Inactive – Needs Evaluation
Fineline Circuits & Technology, Inc.	594 Apollo	Tiered Permit	Refer: Local Agency
R & R Circuits, Div of Interlink Circuits	584 Explorer	Tiered Permit	Inactive – Needs Evaluation
Tri-Star Engineered Products, Inc.	351 Thor Place	Tiered Permit	Inactive – Needs Evaluation
Bristol Industries	630 E. Lambert Road	Evaluation	Inactive – Needs Evaluation

Source: (DTSC, n.d.)

C. Airport Hazards

The Project Site is not located within two miles of a public airport or within an airport land use plan. The closest airport is the Fullerton Municipal Airport, located approximately 5.3 miles southwest of the Project Site. The Project Site is located outside of the notification zone for the Fullerton Municipal Airport, indicating that the Project Site is not subject to airport-related hazards (ALUC, 2019).

D. Wildland Fire Hazards

According to the California Department of Forestry and Fire Protection (CalFire) Fire Hazard Severity Zone (FHSZ) Viewer, the Project Site and areas surrounding the Project Site are not located within a very high fire hazard severity zone (CalFire, n.d.)

4.8.2 Regulatory Setting

The following is a brief description of the federal, state, and local environmental laws and related regulations related to hazards and hazardous materials.

A. Federal Plans, Polices, and Regulations

1. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Superfund Amendments and Reauthorization Act (SARA)

The Comprehensive Environmental Response, Compensation, and Liability Act, also known as CERCLA or Superfund, provides a Federal "Superfund" to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment (EPA, 2022f). Through CERCLA, the Environmental Protection Agency (EPA) was given power to seek out those parties responsible for any release and assure their cooperation in the cleanup. EPA cleans up orphan sites when potentially responsible parties cannot be identified or located, or when they fail to act. Through various enforcement tools, EPA obtains private party cleanup through orders, consent decrees, and other small

party settlements. EPA also recovers costs from financially viable individuals and companies once a response action has been completed.

EPA is authorized to implement the Act in all 50 states and U.S. territories. Superfund site identification, monitoring, and response activities in states are coordinated through the state environmental protection or waste management agencies.

The Superfund Amendments and Reauthorization Act (SARA) of 1986 reauthorized CERCLA to continue cleanup activities around the country. Several site-specific amendments, definitions clarifications, and technical requirements were added to the legislation, including additional enforcement authorities. Also, Title III of SARA authorized the Emergency Planning and Community Right-to-Know Act (EPCRA).

2. Resource Conservation and Recovery Act (RCRA)

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste (EPA, 2022g). RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

The Federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to RCRA that focused on waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.

3. Hazardous Materials Transportation Act (HMTA)

The Hazardous Materials Transportation Act of 1975 (HMTA) empowered the Secretary of Transportation to designate as hazardous material any "particular quantity or form" of a material that "may pose an unreasonable risk to health and safety or property." (OSHA, n.d.)

Hazardous materials regulations are subdivided by function into four basic areas:

- Procedures and/or Policies 49 CFR Parts 101, 106, and 107
- Material Designations 49 CFR Part 172
- Packaging Requirements 49 CFR Parts 173, 178, 179, and 180
- Operational Rules 49 CFR Parts 171, 173, 174, 175, 176, and 177 (OSHA, n.d.)

The HMTA is enforced by use of compliance orders [49 U.S.C. 1808(a)], civil penalties [49 U.S.C. 1809(b)], and injunctive relief (49 U.S.C. 1810). The HMTA (Section 112, 40 U.S.C. 1811) preempts state and local governmental requirements that are inconsistent with the statute, unless that requirement affords an equal or greater level of protection to the public than the HMTA requirement. (OSHA, n.d.)

4. *Hazardous Materials Transportation Uniform Safety Act of 1990*

In 1990, Congress enacted the Hazardous Materials Transportation Uniform Safety Act (HMTUSA) to clarify the maze of conflicting state, local, and federal regulations. Like the HMTA, the HMTUSA requires the Secretary of Transportation to promulgate regulations for the safe transport of hazardous material in intrastate, interstate, and foreign commerce (OSHA, n.d.). The Secretary also retains authority to designate materials as hazardous when they pose unreasonable risks to health, safety, or property.

The statute includes provisions to encourage uniformity among different state and local highway routing regulations, to develop criteria for the issuance of federal permits to motor carriers of hazardous materials, and to regulate the transport of radioactive materials.

5. *Occupational Safety and Health Act (OSHA)*

Congress passed the Occupational and Safety Health Act (OSHA) to ensure worker and workplace safety. Their goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions (EPA, 2022h). In order to establish standards for workplace health and safety, the Act also created the National Institute for Occupational Safety and Health (NIOSH) as the research institution for OSHA. OSHA is a division of the U.S. Department of Labor that oversees the administration of the Act and enforces standards in all 50 states.

6. *Toxic Substances Control Act*

The Toxic Substances Control Act (TSCA) of 1976 provides EPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures (EPA, 2020h). Certain substances are generally excluded from TSCA, including, among others, food, drugs, cosmetics, and pesticides. TSCA addresses the production, importation, use, and disposal of specific chemicals including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint.

Various sections of TSCA provide authority to:

- Require, under Section 5, pre-manufacture notification for "new chemical substances" before manufacture
- Require, under Section 4, testing of chemicals by manufacturers, importers, and processors where risks or exposures of concern are found
- Issue Significant New Use Rules (SNURs), under Section 5, when it identifies a "significant new use" that could result in exposures to, or releases of, a substance of concern.
- Maintain the TSCA Inventory, under Section 8, which contains more than 83,000 chemicals. As new chemicals are commercially manufactured or imported, they are placed on the list.
- Require those importing or exporting chemicals, under Sections 12(b) and 13, to comply with certification reporting and/or other requirements.
- Require, under Section 8, reporting and record-keeping by persons who manufacture, import, process, and/or distribute chemical substances in commerce.

- Require, under Section 8(e), that any person who manufactures (including imports), processes, or distributes in commerce a chemical substance or mixture and who obtains information which reasonably supports the conclusion that such substance or mixture presents a substantial risk of injury to health or the environment to immediately inform EPA, except where EPA has been adequately informed of such information. EPA screens all TSCA b§8(e) submissions as well as voluntary "For Your Information" (FYI) submissions. The latter are not required by law, but are submitted by industry and public interest groups for a variety of reasons.

B. State Regulations

1. Cal/OSHA and the California State Plan

Under an agreement with OSHA, since 1973 California has operated an occupational safety and health program in accordance with Section 18 of the federal OSHA. The State of California's Department of Industrial Relations administers the California Occupational Safety and Health Program, commonly referred to as Cal/OSHA. The State of California's Division of Occupational Safety and Health (DOSH) is the principal agency that oversees plan enforcement and consultation. In addition, the California State program has an independent Standards Board responsible for promulgating State safety and health standards, and reviewing variances. It also has an Appeals Board to adjudicate contested citations and the Division of Labor Standards Enforcement to investigate complaints of discriminatory retaliation in the workplace.

Pursuant to 29 CFR 1952.172, the California State Plan applies to all public and private sector places of employment in the state, with the exception of federal employees, the United States Postal Service, private sector employers on Native American lands, maritime activities on the navigable waterways of the United States, private contractors working on land designated as exclusively under federal jurisdiction and employers that require federal security clearances (OSHA, n.d.). Cal/OSHA is the only agency in the state authorized to adopt, amend, or repeal occupational safety and health standards or orders. In addition, the Standards Board maintains standards for certain things not covered by federal standards or enforcement, including: elevators, aerial passenger tramways, amusement rides, pressure vessels and mine safety training. The Cal/OSHA enforcement unit conducts inspections of California workplaces in response to a report of an industrial accident, a complaint about an occupational safety and health hazard, or as part of an inspection program targeting industries with high rates of occupational hazards, fatalities, injuries or illnesses.

2. California Hazardous Waste Control Law

The Hazardous Waste Control Law (HWCL) (Health and Safety Code [HSC], Division 20, Chapter 6.5, Section 25100, et seq.) is the primary hazardous waste statute in California (CA Legislative Info, n.d.). The HWCL implements RCRA as a "cradle-to-grave" waste management system in the state. It specifies that generators have the primary duty to determine whether their wastes are hazardous and to ensure its proper management. The HWCL also establishes criteria for the reuse and recycling of hazardous wastes used or reuse as raw materials. The HWCL exceeds federal requirements by mandating source reduction planning and broadening requirements for permitting facilities that treat hazardous waste. It also regulates a number of waste types and waste management activities not covered by federal law (RCRA).

3. *California Code of Regulations (CCR), Titles 5, 17, 22 and 26*

A variety of California Code of Regulation (CCR) titles address regulations and requirements for generators of hazardous waste (DTSC, n.d.; DTSC, 2019). Title 5 contains the California Plumbing Code which, in Appendix H, establishes detailed standards for the capping, removal, fill, and disposal of cesspools, septic tanks, and seepage pits. Title 17, Division 1, Chapter 8, defines and regulates handling and disposal of lead-based paint. Any detectable amount of lead is regulated. Title 22 contains detailed compliance requirements for hazardous waste generators, transporters, and facilities for treatment, storage, and disposal. Because California is a fully-authorized state according to RCRA, most regulations (i.e., 40 CFR 260, *et seq.*) have been duplicated and integrated into Title 22. However, because the Department of Toxic Substances Control (DTSC) regulates hazardous waste more stringently than the EPA, the integration of state and federal hazardous waste regulations that make up Title 22 does not contain as many exemptions or exclusions as does 40 CFR 260. Title 22 also regulates a wider range of waste types and waste management activities than does RCRA. To aid the regulated community, California has compiled hazardous materials, waste, and toxics-related regulations from CCR, Titles 3, 8, 13, 17, 19, 22, 23, 24 and 27 into one consolidated listing: CCR Title 26 (Toxics).

4. *Safe Drinking Water and Toxic Enforcement Act*

Proposition 65, officially known as the Safe Drinking Water and Toxic Enforcement Act of 1986 (Health and Safety Code, Division 20, Chapter 6.6, Section 25249.5, *et seq.*), protects the state's drinking water sources from being contaminated with chemicals known to cause cancer, birth defects, or other reproductive harm, and requires businesses to inform Californians about exposures to such chemicals. Proposition 65 requires the state to maintain and update a list of chemicals known to the state to cause cancer or reproductive toxicity.

5. *Unified Hazardous Waste and Hazardous Materials Management Regulatory Program*

California's Unified Program, overseen but the California Environmental Protection Agency (CalEPA), protect Californians from hazardous waste and hazardous materials by ensuring local regulatory agencies consistently apply statewide standards when they issue permits, conduct inspections, and engage in enforcement activities. The Unified Program is a consolidation of multiple environmental and emergency management programs, including the following:

- Aboveground Petroleum Storage Act (APSA) Program;
- Area Plans for Hazardous Materials Emergencies;
- California Accidental Release Prevention (CalARP) Program;
- Hazardous Materials Release Response Plans and Inventories (Business Plans);
- Hazardous Materials Management Plan (HMMP) and Hazardous Materials Inventory Statements (HMIS) (California Code)
- Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs; and
- Underground Storage Tank Program.

State agency partners involved in the implementation of the Unified Program are responsible for setting program element standards, working with CalEPA to ensure program consistency, and providing technical

assistance to the California Unified Program Agencies (CUPAs) and Program Agencies (PAs). The state agencies involved with the Unified Program include CalEPA, Department of Toxic Substances Control (DTSC), the Governor's Office of Emergency Services (Cal OES), CAL FIRE – Office of the State Fire Marshall (CAL FIRE-OSFM), and the State Water Resources Control Board.

6. License to Transport Hazardous Materials

Caltrans regulates hazardous materials transportation on all interstate roads (California Vehicle Code, Section 32000.5, *et seq*). Within California, the State agencies with primary responsibility for enforcing federal and State regulations and for responding to transportation emergencies are the California Highway Patrol and Caltrans. Together, federal and State agencies determine driver-training requirements, load labeling procedures, and container specifications for vehicles transporting hazardous materials.

7. California Hazardous Materials Release Response Plan and Inventory Law of 1985

The Business Plan Act requires preparation of Hazardous Materials Business Plans and disclosure of hazardous materials inventories, including an inventory of hazardous materials handled, plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee training in safety and emergency response procedures for businesses that handle, store, or transport hazardous materials in amounts exceeding specified minimums (California Health and Safety Code, Division 20, Chapter 6.95, Article 1). Statewide, DTSC has primary regulatory responsibility for management of hazardous materials, with delegation of authority to local jurisdictions that enter into agreements with the State. Local agencies are responsible for administering these regulations.

Several state agencies regulate the transportation and use of hazardous materials to minimize potential risks to public health and safety, including CalEPA and the California Emergency Management Agency. The California Highway Patrol and California Department of Transportation (Caltrans) enforce regulations specifically related to the transport of hazardous materials. Together, these agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roadways.

8. California Government Code (CGC) Section 51178

This section specifies that the Director of CalFire, in cooperation with local fire authorities, shall identify areas that are Very High Fire Hazard Severity Zones (VHFHSZ) in Local Responsibility Areas (LRAs), based on consistent statewide criteria, and the expected severity of fire hazard. Per CGC Section 51178, a local agency may, at its discretion, exclude an area within its jurisdiction that has been identified as a VHFHSZ, if certain conditions are met and/or specific findings can be made regarding the availability of effective fire protection services within the affected area.

C. Local Plans, Policies, and Regulations

1. Local Permitting Requirements

The aforementioned federal and State hazardous materials regulations require all businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials to obtain a hazardous

materials permit and submit a business plan to its local Certified Unified Program Agency (CUPA). The CUPA also ensures local compliance with all applicable hazardous materials regulations. The CUPA is the Orange County Health Care Agency, Environmental Health Division. The Orange County Health Care Agency, Environmental Health Division also manages the following: 1) Hazardous Materials Disclosure; 2) Business Emergency Plans; 3) Hazardous Waste; 4) Underground Storage Tanks; 5) Aboveground Petroleum Storage Tanks; and 6) California Accidental Release Prevention.

2. County of Orange and Orange County Fire Authority Local Hazard Mitigation Plan

The County of Orange and Orange County Fire Authority Local Hazard Mitigation Plan (LHMP) was developed to promote sound public policy designed to protect residents, critical facilities, infrastructure, key resources, private property, and the environment from natural hazards and fire hazards. The most current version of the LHMP is dated December 2021 (Orange County, 2021). The LHMP is a multi-jurisdiction plan developed jointly between the County of Orange, a local government, and the Orange County Fire Authority, a Joint Powers Authority. The collaborative plan focuses on mitigating all natural hazards including flooding that impact unincorporated areas of the County as well as County and Orange County Fire Authority owned facilities.

3. SCAQMD Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities

Although not applicable to the Project because the buildings on the Project Site have no reasonable potential to contain asbestos, Rule 1403 requires the implementation of specific work practices to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials (ACM) (SCAQMD, 2007). The requirements for demolition and renovation activities include asbestos surveying, notification, ACM removal procedures and time schedules, ACM handling and clean-up procedures, and storage, disposal, and landfilling requirements for asbestos-containing waste materials (ACWM).

4.8.3 Methodology for Evaluating Hazards & Hazardous Materials Impacts

The analysis of potential hazards and hazardous materials-related impacts is based upon a review of the City's General Plan, information sources from State and federal agencies, a review of applicable airport land use plans, hazardous materials mapping, fire hazard mapping, and other resource databases.

4.8.4 Basis for Determining Significance

Section VIII of Appendix G to the CEQA Guidelines addresses typical adverse effects due to hazards and hazardous materials, and includes the following threshold questions to evaluate the Project's impacts from hazards and hazardous materials:

a. *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;*

b. *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;*

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

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

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

f. *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan;*

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

4.8.5 Impact Analysis

Threshold a:	***Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***
Threshold b:	***Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?***

Implementation of the Project would result in the demolition of four existing buildings and the construction and long-term operation of one restaurant and retail/medical office and one drive-thru restaurant. In the event that any hazards or hazardous materials were to be present on the Project Site or any hazardous materials were to be used or stored on the Project Site during construction or long-term operation, the Project's activities would have the potential to expose workers on the Site, the public, and/or the environment to a hazardous environmental condition. An evaluation of this potential is provided below.

A. Potential Hazards in Demolition Materials

Due to the less than 25-year-old age of the four commercial buildings located on the Project Site that are proposed to be demolished, there is no potential that the existing buildings contain Asbestos-Containing Materials (ACMs) and/or Lead-Based Paints (LBPs). The use of ACMs (a known carcinogen) and lead paint (a known toxin) was common in building construction prior to 1978. Because the buildings on the Project Site were constructed in the 1990's and the use of these materials was banned before that time, there is no potential that ACMs and/or lead paint is present on the Project Site. No impact would thus occur related to the potential presence of these materials.

B. Potential Temporary Construction-Related Activity Hazards

Heavy equipment (e.g., dozers, excavators, tractors) would be operated on the Project Site during demolition and construction activities. This heavy equipment likely would be fueled and maintained by petroleum-based substances such as diesel fuel, gasoline, oil, and hydraulic fluid, which are considered hazardous if improperly stored or handled. In addition, materials such as paints, adhesives, solvents, and other substances typically used in building construction would be located on the Project Site during construction. Improper use, storage, or transportation of hazardous materials can result in accidental releases or spills, potentially posing health risks to workers, the public, and the environment. This is a standard risk on all construction sites, and there would be no greater risk for improper handling, transportation, or spills associated with the Project than would occur on any other similar construction site. Construction contractors would be required to comply with all applicable federal, State, and local laws and regulations regarding the transport, use, and storage of hazardous construction-related materials, including but not limited requirements imposed by the EPA, DTSC, and the Santa Ana RWQCB. With mandatory compliance with applicable hazardous materials regulations, the Project would not create significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials during the construction phase. A less than significant impact would occur.

C. Impact Analysis for Long-Term Operation

The future building occupants for the Project Site have not yet been identified. It is anticipated that the buildings will be occupied by a restaurant, retail/medical office, and drive-thru restaurant. There is the potential for a limited amount hazardous materials to be used during the course of normal daily operations at the Project Site with these types of users. State and federal Community-Right-to-Know laws allow the public access to information about the amounts and types of chemicals in use at local businesses. Laws also are in place that require businesses to plan and prepare for possible chemical emergencies. Any business that occupies either restaurant or the retail/medical office space on the Project Site and that handles hazardous materials (as defined in Section 25500 of California Health and Safety Code, Division 20, Chapter 6.95) will require a permit from the Orange County Health Care Agency, Environmental Health Division in order to register the business as a hazardous materials handler. Such businesses also are required to comply with California's Hazardous Materials Release Response Plans and Inventory Law, which requires immediate reporting to the Orange County Health Care Agency, Environmental Health Division and the State Office of Emergency Services regarding any release or threatened release of a hazardous material, regardless of the amount handled by the business, and to prepare a Hazardous Materials Business Emergency Plan (HMBEP). An HMBEP is a written set of procedures and information created to help minimize the effects and extent of a release or threatened release of a hazardous material. With mandatory regulatory compliance, the Project would not pose a significant hazard to the public or the environment through the routine transport, use, storage, emission, or disposal of hazardous materials, nor would the Project increase the potential for accident conditions which could result in the release of hazardous materials into the environment. Based on the foregoing information, potential hazardous materials impacts associated with long-term operation of the Project are regarded as less than significant.

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

Laurel Elementary School is located east of South Flower Avenue, across the street from the Project Site. Due to the proximate location of the school campus, the Project has the potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, and/or wastes within one-quarter mile of an existing or proposed school. As described above under the analysis for Thresholds "a" and "b," the use of and transport of hazardous substances or materials to-and-from the Project Site during construction and long-term operational activities would be required to comply with applicable federal, State, and local regulations that would preclude substantial public safety hazards. The uses proposed for the Site including commercial/medical office, restaurant, and drive-through restaurant are not uses that are known to typically handle acutely hazardous materials. Any materials that could be considered hazardous, such as cleaning products, food and cooking products, and potential medical waste would be required by applicable regulatory requirements to be properly transported, used, and disposed. Accordingly, there would be no potential for existing or proposed schools to be exposed to substantial safety hazards associated with emission, handling of, or the routine transport of hazardous substances or materials to-and-from the Project Site and impacts would be less than significant.

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

The Project site is not located on any list of hazardous materials sites complied pursuant to Government Code Section 65962.5 (DTSC, n.d.). Accordingly, no impact would occur.

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

The Project Site is not located within two miles of a public airport or within an airport land use plan and there are no components of the proposed Project that would affect airport operations. The closest airport is the Fullerton Municipal Airport, located approximately 5.3 miles southwest of the Project Site. The Project Site is located outside of the notification zone for the Fullerton Municipal Airport, indicating that the Project Site is not subject to airport-related hazards (ALUC, 2019). Therefore, the Project would not result in an inconsistency with an Airport Master Plan, would not require review by the Airport Land Use Commission, and would not result in a safety hazard for people residing or working in the Project area. No impact would occur.

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

The Project Site does not contain any emergency facilities nor does it serve as an emergency evacuation route. During construction, all materials and equipment would be stored/staged on the Project Site and would not interfere with emergency vehicles traveling along Imperial Highway, South Orange Avenue, or South Flower Avenue. For any construction activities in the public right-of-way, the construction contractor would be

required to implement a traffic control plan that complies with the *California Manual on Uniform Traffic Control Devices* and would require approval by the City to ensure that emergency response is not adversely affected. During construction and long-term operation, the proposed Project would be required to maintain adequate emergency access for emergency vehicles. The City has reviewed the Project's application materials and design to ensure that fire truck and emergency vehicle circulation interior to the site and at entrance and exit driveways meets City standards.

Related to Laurel Elementary School across the street from the Project Site on South Flower Avenue, the Brea Olinda Unified School District implements procedures during an emergency or urgent situation that directly or closely affects any of the Brea Olinda Unified School District sites. The District works closely with the Brea Police Department and the Brea Fire Department to ensure that information is communicated accurately and in a timely manner for school student and faculty families and community. Construction activities will not interfere with emergency response as all work would be done according to the City's and the Brea Fire Department's standards and regulations. During construction and operational phases, necessary on- and off-site access/circulation for emergency vehicles/services would be required. Implementation of the Project would add approximately 510 daily vehicle trips compared to the amount of traffic that is currently generated by existing uses on the Project Site (Urban Crossroads, 2023e).

Accordingly, implementation of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan, and no impact would occur.

Threshold g: ***Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?***

The Project Site is not located within a State Responsibility Area or a very high fire hazard severity zone (CalFire, n.d.). Neither Cal Fire nor the City of Brea identify the Project Site within an area susceptible to wildland fires and the Project Site and surrounding areas generally consist of commercial, public facility, and/or residential uses, which are generally not associated with wildland fire hazards (Brea, 2021a, Figure 9). Accordingly, the Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. No impact would occur.

4.8.6 Cumulative Impact Analysis

As discussed above under the responses to Thresholds "a" and "b," the Project's construction and operation would be required to comply with all applicable federal, State, and local regulations to ensure proper use, storage, and disposal of hazardous substances. Such uses also would be subject to additional review and permitting requirements by the Orange County Health Care Agency, Environmental Health Division. Similarly, any other developments in the area proposing the construction of uses with the potential for use, storage, or transport of hazardous materials also would be required to comply with applicable federal, State, and local regulations, and such uses would be subject to additional review and permits from their local oversight agency. Therefore, the potential for release of toxic substances or hazardous materials into the environment, either through accidents or due to routine transport, use, or disposal of such materials, would be less than cumulatively considerable.

The Project Site is located within one-quarter mile of an existing or planned school; however, the use of and transport of hazardous substances or materials to-and-from the Project Site during construction and long-term operational activities would be required to comply with applicable federal, State, and local regulations that would preclude substantial public safety hazards. Construction activities will not interfere with emergency response as all work would be done according to the City's and the Brea Fire Department's standards and regulations. During construction and operational phases, necessary on- and off-site access/circulation for emergency vehicles/services would be required. Compliance with these regulations would ensure the safe handling of hazardous materials, including the appropriate response and clean-up in the event of an accident, to preclude substantial health and safety hazards to students at schools; thus, impacts would be less than significant and the Project's contribution would be less than cumulatively considerable.

The Project Site is not located on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5; therefore, the Project has no potential to contribute to substantial, cumulative effects related to the development or re-development of contaminated property.

As discussed above under the response to Threshold "e," the Project is not located within the influence area of the Fullerton Municipal Airport; therefore, the Project would not result in a safety hazard or excessive noise for people residing or working in the Project area and would not contribute to a cumulatively considerable impact associated with airport hazards.

The Project Site does not contain any emergency facilities nor does it serve as an emergency evacuation route; thus, there is no potential for the Project to contribute to any cumulative impacts associated with an adopted emergency response plan or emergency evacuation plan.

As discussed above under Threshold "g," the Project Site is not located within or in close proximity to areas identified as being subject to wildland fire hazards and would have no potential to contribute to adverse, cumulative wildland fire hazards.

4.8.7 Significance of Impacts Before Mitigation

Threshold a and b: Less-than-Significant Impact. During Project construction and operation, mandatory compliance to federal, State, and local regulations would ensure that the proposed Project would not create a significant hazard to the environment due to routine transport, use, disposal, or upset of hazardous materials.

Threshold c: Less-than-Significant Impact. The Project Site is located within one-quarter mile of an existing school; however, the use of and transport of hazardous substances or materials to-and-from the Project Site during construction and long-term operational activities would be required to comply with applicable federal, State, and local regulations that would preclude substantial public safety hazards which would reduce impacts to less than significant.

Threshold d: No Impact. The Project Site is not located on any list of hazardous materials sites complied pursuant to Government Code Section 65962.5.

Threshold e: Less-than-Significant Impact. The Project is not located within two miles of a public airport or public use airport.

Threshold f: Less-than-Significant Impact. The Project Site does not contain any emergency facilities nor does it serve as an emergency evacuation route. During construction and long-term operation, adequate emergency vehicle access is required to be provided. Accordingly, implementation of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan.

Threshold g: No Impact. The Project Site is not located in close proximity to wildlands or areas with high fire hazards. Thus, the Project would not expose people or structures to a significant wildfire risk.

4.8.8 Mitigation

The Project would result in less than significant impacts related to hazards and hazardous materials and no mitigation is required.

4.9 HYDROLOGY AND WATER QUALITY

Information in this Subsection relies on two technical reports prepared for the proposed Project by Kimley Horn and Associates, Inc. (hereinafter "Kimley Horn"): 1) "Technical Hydrology and Hydraulics Memorandum," dated September 8, 2022 (Kimley Horn, 2022a); and 2) "Preliminary County of Orange/Santa Ana Region Priority Project Water Quality Management Plan (WQMP)," dated December 7, 2022 (Kimley Horn, 2022b). These reports are provided as *Technical Appendices F1 and F2*, respectively, to this EIR. The Project Site is located within the Coyote Creek watershed and is under the jurisdiction of the Santa Ana Regional Water Quality Control Board (RWQCB). As such, information for this Subsection also was obtained from the Santa Ana RWQCB's *Santa Ana River Basin Water Quality Control Plan* (updated June 2019). These and all other information sources referenced in this Subsection are listed in EIR Section 7.0, *References*.

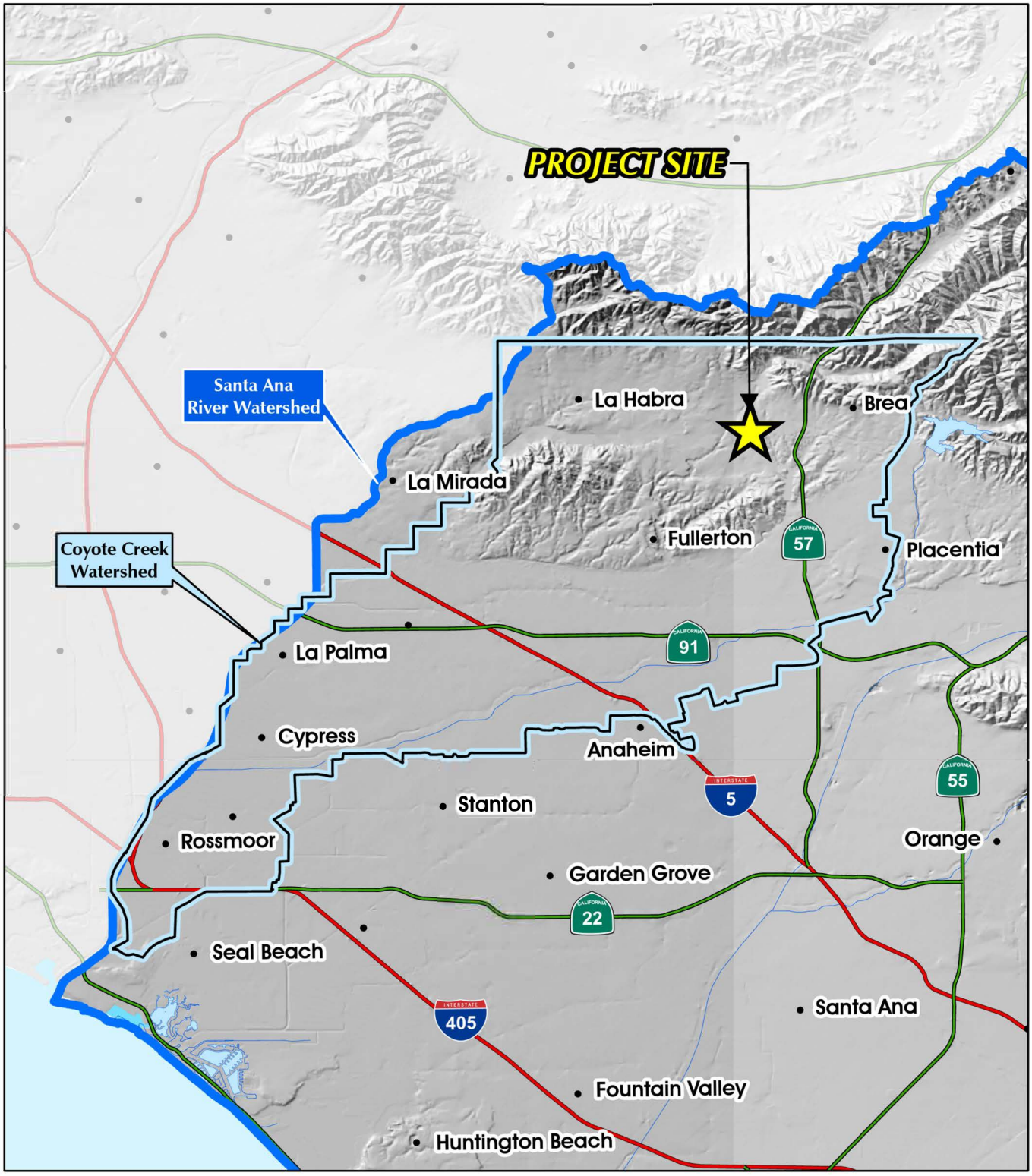
4.9.1 EXISTING CONDITIONS

A. Regional Hydrology

The Project Site is located in the Coyote Creek watershed, which drains an approximately 350-square-mile area into Coyote Creek and its tributaries. Coyote Creek is a tributary to the San Gabriel River, joining it at the southern end of the watershed. The Coyote Creek watershed extends from the flanks of the Diablo Mountain Range, at elevations of over 4,000 feet, to San Francisco Bay and encompasses all or parts of the cities of Anaheim, La Habra, Brea, Placentia, Fullerton, Buena Park, Cypress, La Palma, Los Alamitos, Stanton, and Seal Beach. The Project Site is within the purview of the Santa Ana RWQCB. The Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Plan is the governing water quality plan for the region, which sets forth goals and objectives for protecting water quality within the region (RWQCB, 2019, p. 1.1). The location of the Project Site within the Coyote Creek watershed is illustrated on Figure 4.9-1, *Coyote Creek Watershed Map*.

B. Site Hydrology

The Project Site's existing storm water drainage pattern is illustrated on Figure 4.9-1, *Existing Conditions Hydrology Map*. Under existing conditions, storm water runoff from the existing building roofs and the parking lot areas drains southerly via surface flow from the northeastern and southeastern corners of the Project Site. Runoff is captured by a sidewalk parkway drain on the southwestern portion of the Project Site where it enters the public storm drain system. Off-site runoff also enters the Project Site via the alley and parking lot located just north and adjacent to the Project Site. Runoff from the center high point of the alley to Birch Street drains north. Flows from this area surface flow south onto the Project Site to the existing valley gutter which conveys the on-site flows to the parkway drain and public storm drain system. The storm drain system conveys flows southwest to discharge into the Artesia-Norwalk Drain, which conveys flows further southwest to discharge into Coyote Creek and drain to the San Gabriel River Estuary before discharging into the Pacific Ocean. No storm water quality infrastructure exists on the Site under existing conditions. (Kimley Horn, 2022a, p. 2)

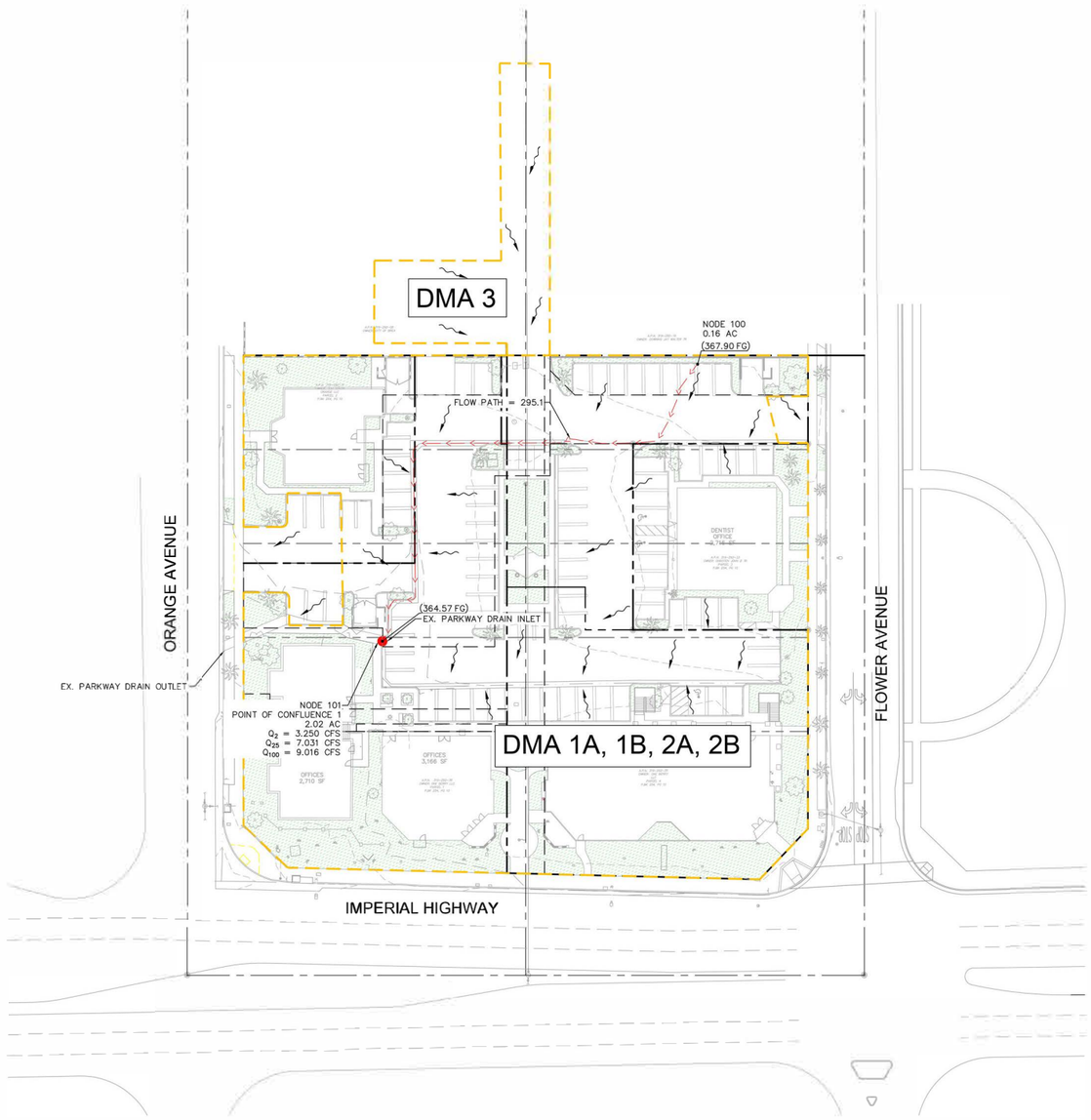


Source(s): Esri, Nearmap Imagery (2022), RCTLMA (2022)

Figure 4.9-1

0 0.75 1.5 3 Miles

Coyote Creek Watershed Map



LEGEND

- CENTER LINE
- PROPERTY / R/W/ LINE
- EASEMENT / SETBACK LINE
- DRAINAGE MAP AREA (DMA) BOUNDARY AREA
- EXISTING STORM DRAIN LINE
- LONGEST HYDROLOGIC PATH
- EXISTING PERVIOUS AREA
- EXISTING FLOW
- CONFLUENCE POINT (CP)

NOTES:

HYDROLOGICAL SOIL GROUP: TYPE D

DEPTH TO GROUNDWATER: 47'

EXISTING CONDITIONS

	DMA 1A	DMA 1B	DMA 2A	DMA 2B	DMA 3	TOTAL
TOTAL AREA, SF (ACRES)	24,225 (0.56)	19,462 (0.45)	15,198 (0.35)	22,114 (0.51)	6,993 (0.16)	87,992 (2.02)
IMPERVIOUS AREA, SF (ACRES)	19,685 (0.45)	14,079 (0.32)	12,493 (0.29)	16,566 (0.38)	6,993 (0.16)	69,816 (1.60)
PERVIOUS AREA, SF (ACRES)	4,540 (0.10)	5,383 (0.12)	2,705 (0.06)	5,548 (0.13)	0 (0)	18,176 (0.42)
IMPERVIOUS FRACTION (IMP)	0.81	0.72	0.82	0.75	1.00	0.79*
TIME, MIN	7.25	7.25	7.25	7.25	7.25	7.25*
C	0.88	0.87	0.88	0.88	0.90	0.88*
2-YEAR INTENSITY, IN/HR	1.83	1.83	1.83	1.83	1.83	1.83*
2-YEAR FLOW RATE (CFS)	0.897	0.713	0.563	0.813	0.264	3.250
25-YEAR INTENSITY, IN/HR	3.91	3.91	3.91	3.91	3.91	3.91*
25-YEAR FLOW RATE (CFS)	1.938	1.550	1.216	1.763	0.565	7.031
100-YEAR INTENSITY, IN/HR	5.00	5.00	5.00	5.00	5.00	5.00*
100-YEAR FLOW RATE (CFS)	2.484	1.989	1.559	2.262	0.723	9.016

*AVERAGE VALUE

Source(s): Kimley-Horn (12-08-2022)

Not to Scale

Figure 4.9-2

Existing Conditions Hydrology Map

C. Flooding and Dam Inundation

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06059C0042J, the Project Site is located within FEMA Flood Zone X. Flood Zone X is correlated with areas of minimal flood hazard, determined to be less than the 0.2 percent annual chance flood. No portions of the Project Site are located within a 100-year flood hazard area. (FEMA, 2009)

According to the City of Brea General Plan EIR, the Project Site is not located within any mapped dam inundation area (Brea, 2003b, Figure 9).

D. Water Quality

The Federal Water Pollution Control Act Amendment of 1972 (also referred to as the Clean Water Act (CWA)) requires all states to conduct water quality assessments of their water resources to identify water bodies that do not meet water quality standards. Water bodies that do not meet water quality standards due to excessive concentrations of pollutants are placed on a list of impaired waters pursuant to Section 303(d) of the CWA. The Project Site's receiving waters include the Artesia-Norwalk Drain, Coyote Creek, and the San Gabriel River Estuary. Of the Project Site's receiving waters, the Artesia-Norwalk Drain is included on the CWA's Section 303(d) list of impaired waters because of selenium and indicator bacteria, Coyote Creek is included because of copper, dissolved, pH, toxicity, indicator bacteria, Malathion and Iron, and the San Gabriel River Estuary is included because of oxygen, dissolved, copper, dioxin and indicator bacteria. (Kimley Horn, 2022b, p. 13)

E. Groundwater

The Project Site is located in the Coastal Plain of Orange County groundwater basin (DWR, n.d.). According to the geotechnical investigation prepared for the Project Site (refer to EIR *Technical Appendix D*), the groundwater table beneath the Project Site is located approximately 47 feet below the existing ground surface (Terracon, 2022, p. 5).

4.9.2 Applicable Environmental Regulations

The following is a brief description of the federal, state, and local environmental laws and related regulations related to hydrology and water quality.

A. Federal Regulations

1. Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was substantially reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, the EPA has implemented pollution control programs such as setting wastewater standards for industry, and also has set water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit

was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man- made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. (EPA, 2022e)

B. State Regulations

1. Porter-Cologne Water Control Act

The Porter-Cologne Act is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code § 13000 et seq.), the policy of the State of California is as follows:

- That the quality of all the waters of the State shall be protected;
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation.

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards' decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The State Water Board and Regional Water Boards have numerous non-point source (NPS) related responsibilities, including monitoring and assessment, planning, financial assistance, and management. (SWRCB, 2014b)

The Regional Water Boards regulate discharges under the Porter-Cologne Act primarily through issuance of NPDES permits for point source discharges and waste discharge requirements (WDRs) for NPS discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Porter-Cologne Act provides several options for enforcing WDRs and other orders, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions. (SWRCB, 2014b)

The Porter-Cologne Act also implements many provisions of the CWA, such as the NPDES permitting program. The Porter-Cologne Act also requires adoption of water quality control plans that contain the guiding policies of water pollution management in California. In addition, regional water quality control plans (basin

plans) have been adopted by each of the RWQCBs and get updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. (SWRCB, 2014b) The Project Site is located in the Santa Ana River Watershed which is within the purview of Santa Ana RWQCB. The Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Plan is the governing water quality plan for the region.

2. California Water Code

The California Water Code is the principal State law regulating water quality in California. Water quality provisions in State Code include but are not limited to: 1) the Health and Safety Code for the protection of ground and surface waters from hazardous waste and other toxic substances; 2) the Fish and Game Code for the prevention of unauthorized diversions of any surface water and discharge of any substance that may be deleterious to fish, plant, animal, or bird life; 3) the Harbors and Navigation Code for the prevention of the unauthorized discharge of waste from vessels into surface waters; and 4) the Food and Agriculture Code for the protection of groundwater which may be used for drinking water supplies. The California Department of Fish and Wildlife (CDFW), through provisions of the Fish & Game Code (§§ 1601 - 1603) is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by CDFW. (CA Legislative Info, n.d.)

Surface water quality is the responsibility of the RWQCB, water supply and wastewater treatment agencies, and city and county governments. The principal means of enforcement by the RWQCB is through the development, adoption, and issuance of water discharge permits. RWQCB basin plans establish water quality objectives that are defined as the limits or levels of water quality constituents or characteristics for the reasonable protection of beneficial uses of water. (CA Legislative Info, n.d.)

3. California Toxics Rule (CTR)

The California Toxics Rule (CTR) fills gap in California's water quality standards necessary to protect human health and aquatic life beneficial uses. The CTR criteria are similar to those published in the National Recommended Water Quality Criteria. The CTR supplements, and does not change or supersede, the criteria that EPA promulgated for California waters in the National Toxics Rule (NTR). The human health NTR and CTR criteria that apply to drinking water sources (those water bodies designated in the Basin Plans as municipal and domestic supply) consider chemical exposure through consumption of both water and aquatic organisms (fish and shellfish) harvested from the water. For waters that are not drinking water sources (e.g., enclosed bays and estuaries), human health NTR and CTR criteria only consider the consumption of contaminated aquatic organisms. The CTR and NTR criteria, along with the beneficial use designations in the Basin Plans and the related implementation policies, are the directly applicable water quality standards for toxic priority pollutants in California waters. (SWRCB, 2016, pp. 14-15)

4. Watershed Management Initiative (WMI)

The State and RWQCBs consider entire watersheds when addressing water pollution including under the Watershed Management Initiative (WMI), which helps the Water Boards achieve water resource protection,

enhancement, and restoration while balancing economic and environmental impacts. The integrated approach of the WMI involves three main ideas: 1) to use water quality to identify and prioritize water resource problems within individual watersheds; 2) to better coordinate point source and nonpoint source regulatory efforts; and 3) to better coordinate local, State, and federal activities and programs, especially those relating to regulations and funding, to assist local watershed groups (SWRCB, 2017).

5. Sustainable Groundwater Management Act (SGMA)

The 2014 Sustainable Groundwater Management Act (SGMA) requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge (DWR, n.d.). Under the SGMA, critically over-drafted basins should reach sustainability by year 2040 and high and medium priority basins should reach sustainability by year 2042 (DWR, 2020). The SGMA also requires local public agencies and Groundwater Sustainability Agencies (GSAs) in high- and medium-priority basins to develop and implement Groundwater Sustainability Plans (GSPs) or Alternatives to GSPs. GSPs are detailed plans that explain how groundwater basins will reach long term sustainability.

A. Local Plans, Policies, and Regulations

1. City of Brea Master Plan of Drainage 2013

The City of Brea Master Plan of Drainage 2013 is a city-wide plan that identifies existing drainage infrastructure including deficient facilities that are not in conformance with current design practices. The Master Plan of Drainage 2013 also recommends drainage improvements to reduce to a level of insignificance or eliminate existing deficiencies within the City's storm drain system. The Plan ranks the recommended drainage improvements from higher to lower for the potential of failure or localized flooding and provides budget level costs for each ranked segment of City's storm drain infrastructure system. (Brea, 2013)

2. Orange County Hydrology Manual

The Orange County Hydrology Manual provides the computational techniques and criteria for the estimation of water runoff, discharges, and volumes for use in submittals to the Orange County Environmental Management Agency (OCEMA). The OCEMA has a goal of providing 100-year return frequency flood protection for all habitable structures and other non-floodproof structures. Accordingly, all drainage plans for projets subject to OCEMA review must demonstrate this 100-year flood protection criteria. (Orange County, 1986)

3. County of Orange and Orange County Fire Authority Local Hazard Mitigation Plan

The County of Orange and Orange County Fire Authority Local Hazard Mitigation Plan (LHMP) was developed to promote sound public policy designed to protect residents, critical facilities, infrastructure, key resources, private property, and the environment from natural hazards and fire hazards. The most current version of the LHMP is dated December 2021 (Orange County, 2021). The LHMP is a multi-jurisdiction plan developed jointly between the County of Orange, a local government, and the Orange County Fire Authority, a Joint Powers Authority. The collaborative plan focuses on mitigating all natural hazards including flooding

that impact unincorporated areas of the County as well as County and Orange County Fire Authority owned facilities.

4. City of Brea Municipal Code

Chapter 13.32 (Stormwater Drainage) of the City of Brea Municipal Code requires the City to participate as a "Co-permittee" under the NPDES permit program to accomplish the requirements of the CWA. Pursuant to this chapter, the City is required to participate in the improvement of water quality and comply with federal requirements for the control of urban pollutants to storm water runoff.

4.9.3 Methodology of Evaluating Hydrology & Water Quality Impacts

The analysis of potential hydrology and water quality-related impacts is based upon the hydrology calculations and preliminary water quality management plans prepared for the Project Site. The hydrology calculations for the Project were prepared by Kimley Horn in accordance with the Orange County Hydrology Manual and the Orange County Local Drainage Manual 1996. The water quality management plan for the Project was prepared in accordance with the requirements of the County of Orange NPDES Storm Water Program. The City of Brea's General Plan and information sources from State and federal agencies were researched to establish the Project Site's existing conditions and likelihood of environmental effects.

4.9.4 Basis for Determining Significance

Section IX of Appendix G to the CEQA Guidelines addresses typical adverse effects to hydrology and water quality, and includes the following threshold questions to evaluate the Project's impacts on hydrology and water quality:

a. *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;*

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

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

   a) *Result in substantial erosion or siltation on- or off-site;*

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

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

d) Impede or redirect flood flows.

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

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

4.9.5 IMPACT ANALYSIS

Threshold a: ***Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?***

The Project would be required to comply with Section 402 of the Clean Water Act, which authorizes the National Pollution Discharge Elimination System (NPDES) permit program that covers point sources of pollution discharging to a water body. The NPDES program also requires operators of construction sites one-acre or larger to prepare a Storm Water Pollution Prevention Plan (SWPPP) and obtain authorization to discharge storm water under an NPDES construction storm water permit. The Project also would be required to comply with the California Porter-Cologne Water Quality Control Act (Section 13000 et seq., of the California Water Code), which requires that comprehensive water quality control plans be developed for all waters within the State of California. The Project site is located within the jurisdiction of the Santa Ana RWQCB.

A. Construction-Related Water Quality Impacts

Construction of the Project would involve demolition, clearing, grading, paving, utility installation, building construction, and landscaping activities, which have the potential to generate silt, debris, organic waste, chemicals, paints, and other solvents; should these materials come into contact with water that reaches the groundwater table or flows off-site, the potential exists for the Project's construction activities to adversely affect water quality. As such, short-term water quality impacts have the potential to occur during Project construction in the absence of any protective or avoidance measures.

Pursuant to the requirements of the Santa Ana RWQCB and Brea Municipal Code Chapter 13.32, the Project Applicant would be required to obtain coverage under the State's General Construction Storm Water Permit for construction activities (NPDES permit). The NPDES permit is required for all development projects that include construction activities, such as clearing, grading, and/or excavation, that disturb at least one (1) acre of total land area. In addition, the Project Applicant would be required to comply with the Santa Ana RWQCB's *Santa Ana River Basin Water Quality Control Program*. Compliance with the NPDES permit and the *Santa Ana River Basin Water Quality Control Program* involves the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) for construction-related activities. The SWPPP will specify the Best Management Practices (BMPs) that the Project's construction contractors would be required to implement during construction activities to ensure that potential pollutants of concern are prevented, minimized, and/or otherwise appropriately treated prior to being discharged from the subject property. Examples of BMPs that may be utilized during construction include, but are not limited to, sandbag barriers, geotextiles, storm drain inlet protection, sediment traps, rip rap soil stabilizers, and hydro-seeding. Mandatory compliance with the

SWPPP would ensure that the Project's construction does not violate any water quality standards or waste discharge requirements. Therefore, water quality impacts associated with construction activities would be less than significant.

B. Post-Development Water Quality Impacts

The expected storm water pollutants of concern that may be produced during Project operation include suspended solid/sediment, nutrients, heavy metals, pathogens (bacteria/virus), pesticides, oil and grease, and trash and debris (Kimley Horn, 2022b, p. 7).

The Project Applicant would be required to prepare and implement a Water Quality Management Plan (WQMP) to demonstrate compliance with the City's NPDES municipal storm water permit, and to minimize the release of potential waterborne pollutants, including pollutants of concern for downstream receiving waters. The WQMP is a site-specific post-construction water quality management program designed to address the potential release of pollutants of concern for downstream receiving waters and other water pollutants through the use of BMPs. Implementation of the WQMP ensures on-going, long-term protection of the watershed basin. The preliminary WQMP for the Project was prepared by Kimley Horn and is included as *Technical Appendix F2* to this EIR. As identified in the preliminary WQMP, the Project is designed to include operational source control BMPs (including but not limited to: the installation of water-efficient landscape irrigation systems, storm drain system stenciling and signage, and implementation of a trash and waste storage areas) to minimize, prevent, and/or otherwise appropriately treat storm water runoff flows before they are discharged into the City's storm drain system. Compliance with the preliminary WQMP would be required as a condition of Project approval pursuant to Brea Municipal Code Chapter 13.32, and long-term maintenance of on-site BMPs would be required to ensure their long-term effectiveness.

Based on the foregoing analysis, the Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during long-term operation. Impacts would be less than significant.

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

Water service to the Project would be provided by the City of Brea Water Services Division, and the Project would not utilize wells or any other groundwater extractive activities. Therefore, the Project would not directly draw water from the groundwater basin. Accordingly, implementation of the Project has no potential to substantially deplete or decrease groundwater supplies and the Project's direct impact to groundwater supplies would be less than significant.

Under existing conditions, the Project Site is fully developed. Redevelopment of the Project Site as proposed by the Project would not increase impervious surface coverage on the Project Site and therefore, would not alter the amount of water percolating down into the groundwater table that underlies the Project Site (Coastal Plain of Orange County groundwater basin). The principal source of recharge for the Coastal Plain of Orange County groundwater basin is derived from percolation of Santa Ana River flow. Therefore, the Project would

not result in substantial, adverse effects to local groundwater levels. Additionally, the Project includes design features that would maximize the percolation of on-site storm water runoff into the groundwater basin, such as permeable landscape areas. Accordingly, buildout of the Project with these design features would not interfere substantially with groundwater recharge or impede sustainable groundwater management of the Coastal Plain of Orange County groundwater basin. Based on the foregoing information, the Project would not interfere substantially with groundwater recharge.

For the reasons stated above, the Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project would impede sustainable groundwater management of the basin. Impacts would be less than significant.

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

The following analysis evaluates the potential for Project-related development activities to adversely affect water quality or cause or exacerbate local flooding.

A. Erosion and Siltation

Under existing conditions, the Project Site is fully developed. The proposed Project would maintain the existing drainage patterns on the Project Site and would not result in substantial erosion or siltation on- or off-site. Pursuant to the requirements of the State Water Resources Control Board, the Project Applicant would be required to obtain coverage under the State's General Construction Storm Water Permit for construction activities (NPDES permit). The NPDES permit is required for all development projects that include construction activities, such as clearing, grading, and/or excavation, that disturb at least one (1) acre of total land area. In addition, the Project would be required to comply with the Santa Ana RWQCB's *Santa Ana River Basin Water Quality Control Program*. Compliance with the NPDES permit and the *Santa Ana River Basin Water Quality Control Program* involves the preparation and implementation of a SWPPP for construction-related activities. The SWPPP will specify the Best Management Practices (BMPs) that would be required to be implemented during construction activities to ensure that waterborne pollution, including erosion/siltation, is prevented, minimized, and/or otherwise appropriately treated prior to surface runoff being discharged from the subject property. Examples of BMPs that may be utilized during construction include, but are not limited to, sandbag barriers, geotextiles, storm drain inlet protection, sediment traps, rip rap soil stabilizers, and hydro-seeding. Mandatory compliance with the SWPPP would ensure that the Project's implementation does not violate any water quality standards or waste discharge requirements during construction activities. Based on the foregoing information, water quality impacts associated with Project construction activities would be less than significant.

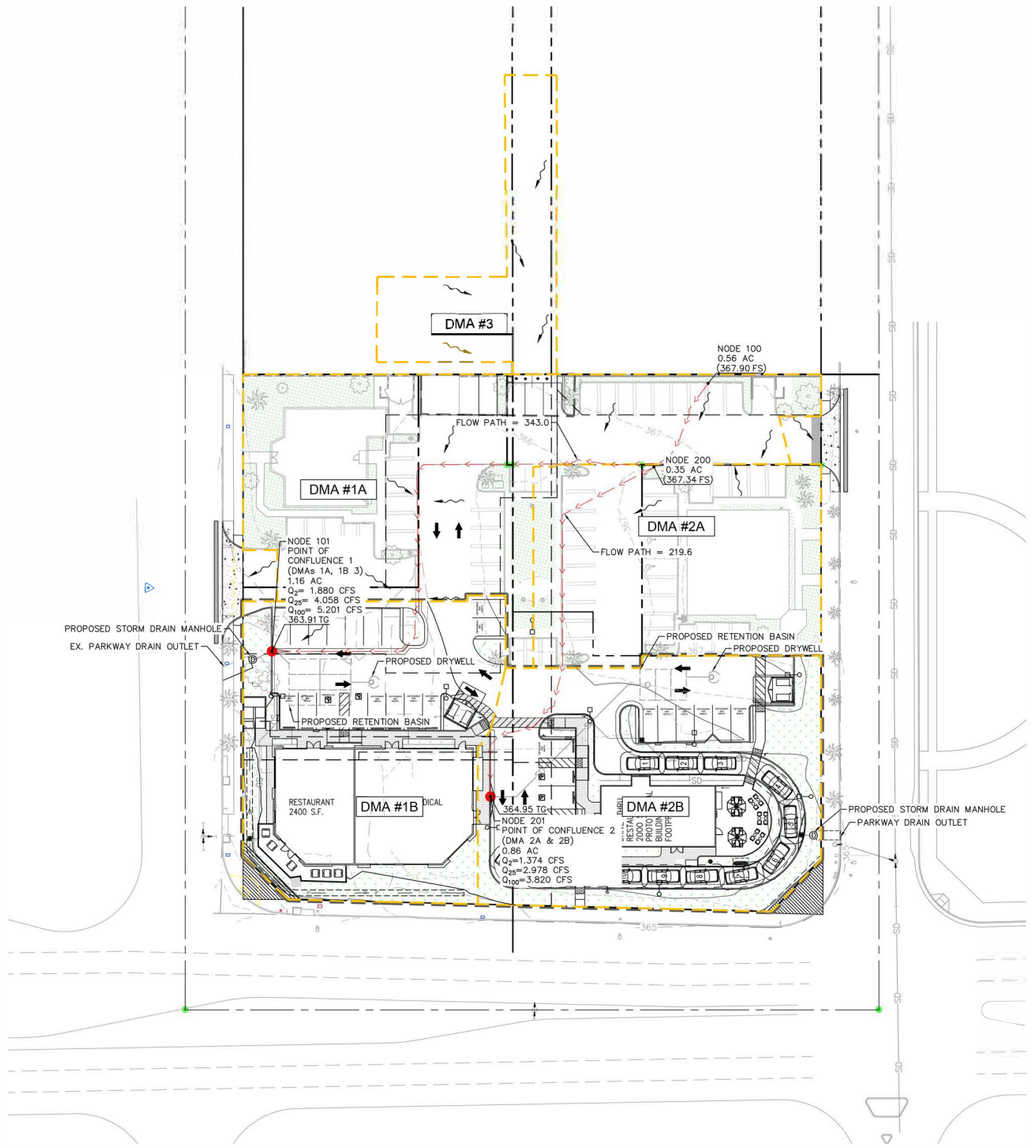
During operation of the Project, the Project Applicant would be required to prepare and implement a WQMP, which is a site-specific post-construction water quality management program that will be implemented to minimize erosion and siltation, pursuant to Brea Municipal Code Chapter 13.32. The WQMP is required to identify an effective combination of erosion control and sediment control measures (i.e., BMPs) to reduce or eliminate sediment discharge to surface water from storm water and non-storm water discharges. The WQMP also is required to establish a post-construction implementation and maintenance plan to ensure on-going, long-term erosion protection. Compliance with the WQMP is required as a condition of approval for the Project, as will the long-term maintenance of erosion and sediment control features. The preliminary WQMP for the Project is provided as *Technical Appendix F2* to this EIR. Because the Project Applicant would be required to utilize erosion and sediment control measures to preclude substantial, long-term soil erosion and loss of topsoil, Project operation would result in less-than-significant impacts related to soil erosion and sedimentation.

B. Storm Water Runoff Discharge and Storm Drain Capacity

Under existing conditions, the Project Site is fully developed. With implementation of the proposed Project, the existing drainage patterns would be maintained with storm water runoff from the building and parking lot areas draining via surface flow southerly from the northeast corner of the Project Site and the southeast corner of the building draining to proposed drop inlets (Kimley Horn, 2022a, p. 2). Refer to Figure 4.9-3, *Proposed Conditions Hydrology Map*.

Storm water from the western portion of the Project Site would be conveyed to an underground detention vault and a proprietary underground dry well system. The full design capture volume would be infiltrated through the proprietary dry well system. The underground detention vault would be used for storage of the remaining design capture volume. The Project Site would also take on off-site run-on via the City parking lot to the north, as it does under existing conditions. Flows from this area would be conveyed south and would surface flow south on-site to the existing valley gutter. The existing valley gutter would connect to a proposed valley gutter which would convey the on-site flows to the parkway drain and public storm drain system. For the 25-year and 100-year storm events, storm water would surcharge the proposed BMPs and overflow the catch basin along the westerly side of the Project Site and be conveyed via the Project Site's existing on-site sidewalk parkway drain, flowing southwest and ultimately discharging into the public storm drain system. (Kimley Horn, 2022a pp. 2-3)

Storm water from the eastern portion of the Project Site would be conveyed to an underground detention vault and a proprietary underground dry well system. The full design capture volume would be infiltrated through the proprietary dry well system. The underground detention vault would be used for storage of the remaining design capture volume. For the 25-year and 100-year storm events, storm water at the eastern portion of the Site would also over-flow the catch basin at the southeast corner of the building and be conveyed east via a parkway drain to the curb and gutter along South Flower Avenue, ultimately discharging into the public storm drain system. (Kimley Horn, 2022a, p. 3)



LEGEND

- CENTER LINE
- PROPERTY LINE
- EASEMENT LINE
- APPROXIMATE LIMITS OF DISTURBANCE
- DMA LIMITS
- R — PROPOSED RIDGE LINE
- GB — PROPOSED GRADE BREAK LINE
- PROPOSED FLOW LINE
- SD — PROPOSED STORM DRAIN LINE
- SD — EXISTING STORM DRAIN LINE
- CORNER CUT-OFF AREA
- EXISTING PERVIOUS AREA
- PROPOSED PERVIOUS AREA
- LONGEST FLOW PATH LINE
- FLOW DIRECTION
- CONFLUENCE POINT

NOTES:

HYDROLOGICAL SOIL GROUP: TYPE D

DEPTH TO GROUNDWATER: 47'

PROPOSED CONDITIONS						
	DMA 1A (OFFSITE RUN-ON)	DMA 1B	DMA 2A (OFFSITE RUN-ON)	DMA 2B	DMA 3	TOTAL
TOTAL AREA, SF (ACRES)	24,225 (0.56)	19,462 (0.45)	15,198 (0.35)	22,114 (0.51)	6,993 (0.16)	87,992 (2.02)
IMPERVIOUS AREA, SF (ACRES)	19,685 (0.45)	15,485 (0.36)	12,493 (0.29)	16,229 (0.37)	6,993 (0.16)	70,885 (1.63)
PERVIOUS AREA, SF (ACRES)	4,540 (0.10)	3,977 (0.09)	2,705 (0.06)	5,885 (0.14)	0 (0)	17,107 (0.39)
IMPERVIOUS FRACTION (IMP)	0.81	0.80	0.82	0.73	1.00	0.80*
TIME, MIN	7.25	7.25	7.25	7.25	7.25	7.25*
C	0.88	0.89	0.89	0.88	0.90	0.89*
2-YEAR INTENSITY, IN/HR	1.83	1.83	1.83	1.83	1.83	1.83*
2-YEAR FLOW RATE (CFS)	0.897	0.719	0.563	0.811	0.264	3.254
25-YEAR INTENSITY, IN/HR	3.91	3.91	3.91	3.91	3.91	3.91*
25-YEAR FLOW RATE (CFS)	1.938	1.555	1.216	1.762	0.565	7.036
100-YEAR INTENSITY, IN/HR	5.00	5.00	5.00	5.00	5.00	5.00*
100-YEAR FLOW RATE (CFS)	2.484	1.994	1.559	2.261	0.723	9.021

*AVERAGE VALUE

Source(s): Kimley-Horn (12-08-2022)

Not to Scale

Figure 4.9-3

Proposed Conditions Hydrology Map

The Project is designed to keep flowrates for the proposed Project conditions from significantly increasing beyond existing condition peak flows that are discharging directly to the on-site storm drain system. Under existing conditions, no storm water quality infrastructure is present on the Project Site, therefore, the addition of the underground storm water vaults would reduce the proposed Project flow to the existing condition flow rate. The 100-year proposed flow rate, including off-site run-on, is 9.021 cubic feet per second (CFS). The 100-year existing flow rate, including off-site run-on, is 9.016 CFS. The total increase in flow is 0.005 CFS. The additional storage provided by the BMP structures, underground detention vaults and drywells, would be 0.917 CFS, which would be more than the peak flow difference of 0.005 CFS, and would therefore mitigate by design the increase in runoff and reduce flows of the proposed Project to less than the flows under existing conditions. (Kimley Horn, 2022a, p. 5) As such, impacts would be less than significant.

C. Flood Flows

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06059C0042J, the Project Site is located within FEMA Flood Zone X. Flood Zone X is correlated with areas of minimal flood hazard, determined to be less than the 0.2 percent annual chance flood. No portions of the Project Site are located within a 100-year flood hazard area (FEMA, 2009). Accordingly, the Project Site is not expected to be inundated by flood flows during the lifetime of the Project and the Project would not impede flood flows. No impact would occur.

Threshold d: ***Would the Project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?***

The Pacific Ocean is located over 17 miles southwest of the Project Site; consequently, there is no potential for the Project Site to be impacted by a tsunami as tsunamis typically only reach up to a few miles inland. The Project Site also is not subject to flooding hazards associated with a seiche because the nearest large body of surface water (Laguna Lake) is located more than 2 miles southwest of the Project Site, which is too far away from the subject property to impact the property with a seiche. Furthermore, as noted in the City of Brea General Plan EIR, the Project Site is not located within any mapped dam inundation area (Brea, 2003b, Figure 9). Because the Project Site cannot be affected by a tsunami, seiche, or dam inundation, there is no potential for such hazards to inundate the Project Site and cause a release of waterborne pollutants. Accordingly, the Project would not release water pollutants due to inundation. No impact would occur.

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

As discussed in Threshold "a" above, the Project Site is located within the Coyote Creek watershed and Project-related construction and operational activities would be required to comply with the Santa Ana RWQCB's *Santa Ana River Basin Water Quality Control Plan* by preparing and adhering to a SWPPP and WQMP. Impacts would be less than significant.

The Project Site is located within the Coastal Plain of Orange County groundwater basin. As noted previously in the response to Threshold "b," implementation of the Project would not result in substantial adverse effects to local groundwater supplies or groundwater recharge. Thus, no component of the Project would obstruct with

or prevent implementation of the management plan for the Coastal Plain of Orange County groundwater basin. As such, the Projects' construction and operation would not conflict with any sustainable groundwater management plan. Impacts would be less than significant.

4.9.6 Cumulative Impact Analysis

The cumulative impact analysis considers construction and operation of the Project in conjunction with other development projects in the vicinity of the Project Site and projects located in the Coyote Creek Watershed and Coastal Plain of Orange County groundwater basin.

A. Water Quality

Project construction and the construction of other projects in the cumulative study area would have the potential to contribute waterborne pollution, including erosion and siltation, to the Coyote Creek Watershed. Pursuant to the requirements of the State Water Resources Control Board and the Santa Ana RWQCB, all construction projects that disturb one (1) or more acres of land area are required to obtain coverage for construction activities under the State's General Construction NPDES Permit. In order to obtain coverage, an effective Site-specific SWPPP is required to be developed and implemented. The SWPPP must identify potential on-site pollutants and identify an effective combination of erosion control and sediment control measures to reduce or eliminate discharge of pollutants to surface waters. Compliance with these mandatory regulatory requirements, would ensure that development projects within the Coyote Creek Watershed, including the proposed Project, would not contribute substantially to water quality impairments during construction.

Operational activities on the Project Site would be required to comply with the Project's WQMP to minimize the amount of waterborne pollution, including erosion and sediment, discharged from the Site. Other development projects within the watershed would similarly be required by law to prepare and implement Site-specific WQMPs to ensure that runoff does not substantially contribute to water quality violations. Accordingly, operation of the Project would not contribute to cumulatively-considerable water quality effects.

B. Groundwater Supplies and Management

A majority of the groundwater recharge for the Coastal Plain of Orange County groundwater basin is derived from percolation of Santa Ana River flow. The Project would not physically impact the Santa Ana River and other development projects in the basin similarly would be prohibited from resulting in adverse physical effects to the river. The Project incorporates permeable landscape areas and other design features (i.e., underground detention vaults and drywells) that would allow surface runoff to infiltrate into the groundwater basin. Other development projects would similarly be required by the lead agency for the project to incorporate design features (e.g., through minimum landscaped area requirements and site-specific WQMP requirements) that facilitate percolation and minimize surface runoff. Based on the lack of impacts to groundwater recharge facilities and the provision of design measures that would facilitate percolation, cumulative development would not result in a considerable, adverse effect to local groundwater supplies.

C. Flooding

Construction of the Project and other development projects within the Coyote Creek Watershed would be required to comply with federal, State, and local regulations and applicable regional and local master drainage plans in order to mitigate flood hazards both on- and off-site. Compliance with federal, State, and local regulations and applicable drainage plans would require development sites to be protected from flooding during peak storm events (i.e., 100-year storm) and also would not allow development projects to expose downstream properties to increased flooding risks during peak storm events. In addition, future development proposals within the Coyote Creek Watershed would be required to prepare hydrologic and hydraulic calculations, subject to review and approval by the responsible City/County Engineer, to demonstrate that substantial on- and/or off-site flood hazards would not occur. As discussed under the response to Threshold "c," the Project is designed to ensure that runoff from the Project Site during peak storm events is reduced relative to existing conditions. Because the Project and all other developments throughout the Coyote Creek Watershed, would need to comply with federal, State, and local regulations to ensure that storm water discharges do not substantially exceed existing volumes or exceed the volume of available conveyance infrastructure, a substantial cumulative impact related to flood hazards would not occur.

Additionally, the Project Site is not located within a special flood hazard area or in an area subject to inundation. Accordingly, development on the Project Site would have no potential to impede or redirect flood flows and a cumulatively-considerable impact would not occur.

4.9.7 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Adherence to a SWPPP and WQMP is required as part of the Project's implementation to address construction- and operational-related water quality.

Threshold b: Less-than-Significant Impact. The Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project would impede sustainable groundwater management of the basin.

Threshold c: Less-than-Significant Impact. The Project would be required to comply with applicable water quality regulatory requirements to minimize erosion and siltation. Additionally, the Project would not result in flooding on- or off-site or impede/redirect flood flows. Lastly, the Project would not create or contribute runoff that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

Threshold d: No Impact. The Project Site would not be subject to inundation from tsunamis, seiches, or other hazards.

Threshold e: Less-than-Significant Impact. The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

4.9.8 MITIGATION

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

4.10 LAND USE AND PLANNING

This Subsection discusses consistency of the Project with applicable land use and planning policies adopted by the City of Brea and other governing agencies for the purpose of reducing adverse effects on the environment. Information used to support the analysis in this Subsection was obtained primarily from the City of Brea General Plan, City of Brea Zoning Ordinance, and Southern California Association of Governments (SCAG) *Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)* (SCAG, 2020a). Refer to Section 7.0, *References*, for a complete list of reference sources.

4.10.1 EXISTING CONDITIONS

Under existing conditions, the Project Site is developed with six commercial/office buildings, paved drive aisles and parking lots, and landscaping. As previously shown on Figure 2-1, *Surrounding Land Uses*, a city parking lot and residential land uses abut the Project Site to the north. To the east is South Flower Avenue beyond which is Laurel Elementary School. Imperial Highway abuts the Project Site to the south beyond which is commercial and residential land uses. To the west is South Orange Avenue and further west is a City parking garage and commercial land uses. Refer to EIR Subsection 2.3, *Surrounding Land Uses,* for a more detailed description.

4.10.2 REGULATORY SETTING

The following is a brief description of the federal, state, and local environmental laws and related regulations related to land use and planning.

A. City of Brea General Plan

The legal framework in which California cities and counties exercise local planning and land use functions is set forth in the California Planning and Zoning Law, Sections 65000 - 66499.58. Under State of California planning law, each city and county must adopt a comprehensive, long-term general plan. State law gives cities and counties wide latitude in how a jurisdiction may create a general plan, but there are fundamental requirements that must be met. These requirements include the inclusion of seven mandatory elements described in the Government Code, including a section on land use. Each of the elements must contain text and descriptions setting forth objectives, principles, standards, policies, and plan proposals; diagrams and maps that incorporate data and analysis.

To assist local governments in meeting this responsibility, the Governor's Office of Planning and Research (OPR) is required to adopt and periodically revise guidelines for the preparation and content of local general plans pursuant to Government Code § 65040.2. The General Plan Guidelines are advisory and not mandatory. Nevertheless, it is the State's only official document explaining California's legal requirements for general plans. Planners, decision-making bodies, and the public depend upon the General Plan Guidelines when preparing local general plans. The courts have periodically referred to the General Plan Guidelines for assistance in determining compliance with planning law. For this reason, the General Plan Guidelines closely adheres to statute and case law. It also relies upon commonly accepted principles of contemporary planning practice. (OPR, 2017b, p. 1)

The City of Brea General Plan was adopted in 2003, with updates to the Public Safety Element in 2021 and updates to the Housing Element in 2022 (Brea, 2003a; Brea, 2021; Brea, 2022b). The Housing Element is the only element in the General Plan that is required to be updated every eight years. The most recent Housing Element for the years 2021-2029 was adopted in September 2021, and was revised and re-adopted in August 2022. The City's 6th Cycle Housing Element 2021-2029 was certified by the State in September 2022.

A General Plan is a policy document that reflects the City's vision for the future of Brea. The General Plan is organized into five separate elements, which contain a series of policies to guide the City's vision for future development. Each of the General Plan elements are summarized below.

- *Community Development*

The Community Development Element addresses the building blocks of the community; land use patterns, infrastructure, the economy, and the visual character of the City. The goals and policies of this element guide land use and development decisions in the City with the aim of improving the quality of life and reinforcing the sense of place in Brea. (Brea, 2003a, p. 2-2)

- *Housing*

The most recent Housing Element for the years 2021-2029 was adopted in September 2021, and was revised and re-adopted in August 2022. The City's' 6th Cycle Housing Element 2021-2029 was certified by the State in September 2022. The 6th Cycle Housing Element was prepared according to State requirements, which stipulates that cities and counties must include in their general plans a Housing Element that makes adequate provision for housing and housing growth by providing zoning at appropriate densities and with sufficient infrastructure to meet a "fair share" of the regional need for affordable housing, as shown in the Regional Housing Needs Assessment (RHNA), prepared by SCAG. The City of Brea's Housing Element identifies strategies and programs that focus on: 1) conserving and improving existing affordable housing; 2) providing adequate housing sites; 3) assisting in the development of affordable housing; 4) removing governmental and other constraints to housing development; 5) promoting equal housing opportunities; and 6) promoting sustainability and energy efficiency. (Brea, 2022b, p. 3-3)

- *Community Resources*

The Community Resources Element focuses on the enhancement of community qualities that distinguish Brea. These resources contribute tremendously to the quality of life in Brea and allow residents to enjoy and experience features not found in many urban environments. (Brea, 2003a p. 4-2)

- *Community Services*

The Community Services Element focuses on schools, parks, community facilities, and arts and cultural institutions which are highly regarded and treasured as valuable assets of Brea's community and economic environment. Continuing to provide high quality community program activities and services to all residents, businesses, and visitors is a theme of this element of the plan. (Brea, 2003a, p. 5-1)

- *Public Safety*

  The Public Safety Element focuses on ensuring a safe and secure community. The goals and policies in this element are to protect and safeguard Brea residents from wildland and urban fires, crime, hazardous materials incidents, flooding, earthquakes, and exposure to excessive noise levels. (Brea, 2021a, p. 6-1)

The City's General Plan designates the Project Site as Office/Financial. The Office/Financial land use designation provides for single-tenant and multi-tenant offices that house professional, legal, medical, financial, administrative, research and development, corporate and general business offices, and other uses. The maximum floor area ratio (FAR) for this land use designation is 1.5 (Brea, 2003a, p. 2-15).

B. City of Brea Zoning Ordinance

Under existing conditions, the Project Site is zoned "Administrative and Professional Office (C-P)" with a "Precise Development (P-D)" overlay. The Administrative and Professional Office zoning classification is intended to provide for the development of administrative and professional offices and other related uses and facilities (Brea, 2022a, Chapter 20.224).

C. SCAG Regional Transportation Plan and Sustainable Communities Strategy

The Southern California Association of Governments (SCAG) is a Joint Powers Authority (JPA) under California State law, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. Under federal law, SCAG is designated as a Metropolitan Planning Organization (MPO) and under State law as a Regional Transportation Planning Agency and a Council of Governments. The SCAG region encompasses six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura) and 191 cities in an area covering more than 38,000 square miles. SCAG develops long-range regional transportation plans including sustainable communities strategy and growth forecast components, regional transportation improvement programs, regional housing needs allocations and other plans for the region. (SCAG, 2020a)

As a MPO and public agency, SCAG develops transportation and housing strategies that transcend jurisdictional boundaries that affect the quality of life for southern California as a whole. SCAG's *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)* includes long-range regional transportation plans, regional transportation improvement programs, regional housing needs allocations, and other plans for the region. The *RTP/SCS* also provides objectives for meeting emissions reduction targets set forth by the California Air Resources Board (CARB); these objectives were provided in a direct response to Senate Bill 375 (SB 375) which was enacted to reduce greenhouse gas emissions from automobiles and light trucks through integrated transportation, land use, housing and environmental planning. (SCAG, 2020a)

D. SCAQMD Air Quality Management Plan

An Air Quality Management Plan (AQMP) is a plan for the regional improvement of air quality. The South Coast Air Quality Management District (SCAQMD) *2016 AQMP* is the applicable AQMP for the South Coast Air Basin and was approved by the SCAQMD Governing Board in March 2017 (SCAQMD, 2017a). The SCAQMD Governing Board adopted the draft 2022 AQMP at its December 2, 2022, meeting; however, the

draft 2022 AQMP requires California Air Resources Board (CARB) adoption before submittal for the U.S. EPA's final approval, which is expected to occur sometime in 2023. (Urban Crossroads, 2023a, p. 40) The Project's consistency with the *2016 AQMP* was analyzed in detail in EIR Subsection 4.2, *Air Quality*.

4.10.3 Basis for Determining Significance

Section X of Appendix G to the CEQA Guidelines addresses typical adverse effects to the environment associated with land uses and planning, and includes the following threshold questions to evaluate the Project's impacts related to land use and planning topics:

a. *Physically divide an established community;*

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

4.10.4 Impact Analysis

***Threshold a*: Would the Project physically divide an established community?**

The Project Site is developed with six commercial/office buildings, drive aisles, surface parking areas, and ornamental landscaping and is completely surrounded by roadways and other developed properties. As shown on Figure 2-1, *Surrounding Development,* the surrounding properties are developed with commercial, residential and public facility uses. Due to the extent of existing urbanization and that fact that that the Project Site is already developed with commercial/office buildings and associated improvements, redevelopment of the southern 0.95-acre of the Project Site with two new commercial buildings, surface parking and landscaping would have no potential to divide an established community. No impact would occur.

***Threshold b*: 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?**

A. City of Brea General Plan

The proposed Project includes a General Plan Amendment to change the land use designation of the Project Site from "Office/Financial" to "Mixed Use III." Inconsistency with a goal or policy of an applicable plan is not itself an environmental impact. Such an inconsistency may be read to indicate a likelihood of an environmental impact or to support such a conclusion, but an inconsistency is not inherently an environmental impact itself. Further, it is well-established in CEQA case law that a project does not have to be consistent with each and every goal or policy in a plan to be found consistent with the overall intent of the plan. Determination of consistency requires only that the proposed project be "compatible with the objectives, policies, general land uses, and programs specified in" the applicable plan. (Cal. Gov. Code § 66473.5.) The

courts have interpreted this provision as requiring that a project be "in agreement or harmony with the terms of the applicable plan, not in rigid conformity with every detail" of the plan.[1]

As summarized in Table 4.10-1, *Project Consistency with the General Plan*, the Project would be consistent with or otherwise not in conflict with applicable General Plan goals and policies related to environmental effects.

Table 4.10-1 Project Consistency with the General Plan

Applicable General Plan Polices	Consistency Determination
COMMUNITY DEVELOPMENT ELEMENT	
Goal CD-1: Provide a balance of land uses to meet the present and future needs of all residents.	
Policy CD-1.2: Maintain a land use structure that balances the provision of jobs and housing with available infrastructure and public and human services.	No conflict identified. The Project requires the City's approval of the proposed General Plan Amendment to change the property's land use designation from Office/Financial to Mixed Use III. The change in land use and the proposed Project would allow for the continuation of job creating businesses on the Project Site and would provide additional services to the community.
Policy CD-1.3: Endeavor to create a mixture of employment opportunities for all economic levels of citizens.	No conflict identified. As detailed in EIR Section 3.0, *Project Description*, the proposed Project is anticipated to provide for approximately 611 employment opportunities.
Policy CD-1.6: Accommodate a broad range of business uses that provide employment at all income levels and that make a positive contribution to the City's tax base.	No conflict identified. As detailed in EIR Section 3.0, *Project Description*, the proposed Project would add a restaurant and retail/medical building. These uses would add to the broad range of business uses in Brea and make positive contributions to the City's tax base.
Policy CD-1.9: Encourage new development that is organized around compact, walkable, mixed-use neighborhoods and districts to conserve open space resources, minimize infrastructure costs, and reduce reliance on the automobile.	No conflict identified. The Project proposes a redevelopment plan for the Project site and would change the zoning classification of the Project Site to Mixed Use III in order to construct a restaurant and medical/retail building and a drive-thru restaurant. Bicycle facilities are included as part of the Project and the sidewalks along the street frontages of the Project Site with South Orange Avenue, South Flower Avenue, and Imperial Highway would be retained. The proposed site design would be compact and walkable and contribute to the mix of uses in the surrounding area.
Policy CD-1.11: Maintain a mixture of business and retail uses within the community.	No conflict identified. The Project proposes a restaurant and medical/retail building and a drive-thru restaurant. Redevelopment of the Project Site as proposed would maintain a mixture of business and retail uses in the area.
Goal CD-4: Maintain and improve the vitality, economic strength, accessibility, and livability of Downtown.	
Policy CD-4.1: Explore economic and employment opportunities to diversify the business mix in Downtown.	No conflict identified. The Project proposes a restaurant and medical/retail building and a drive-thru restaurant which is

[1] *San Franciscans Upholding the Downtown Plan v. City & County of San Francisco* (2002) 102 Cal.App.4th 656, 678; see also *Friends of Lagoon Valley v. City of Vacaville* (2007) 154 Cal.App.4th 807.

	anticipated to provide approximately 611 employment opportunities.
Goal CD-19: Encourage active and inviting street environments that include a variety of uses within Commercial and Mixed-Use areas.	No conflict identified. Landscaping and aesthetics along the Project Site's frontages with South Orange Avenue, South Flower Avenue, and Imperial Highway would be retained in part and enhanced in part. Street trees and sidewalks would be retained, with additional street trees and landscaping provided. The Project's proposed restaurant, medical/retail building and drive-thru restaurant will contribute to the variety of uses within the area.
Goal CD-20: Encourage site planning within Commercial and Mixed-Use districts that functionally and visually integrates on-site facilities and uses, including buildings, services, access, and parking.	No conflict identified. The Project proposes to amend the zoning designation of the Project Site to Mixed Use III and construct a restaurant and medical/retail building and a drive-thru restaurant that are visually integrated with the surrounding area. Parking would be supplied on-site with additional parking in the City parking garage located to the northwest of the Project Site.
Goal CD-23: Encourage and facilitate activities that expand the City's revenue base.	
Policy CD-23.1: Encourage a broad range of business uses that provide employment at all income levels and that make a positive contribution to the City's tax base.	No conflict identified. The Project's restaurant and medical/retail building and a drive-thru restaurant proposed by the Project is anticipated to provide approximately 611 jobs and would contribute to the City's tax base.
Policy CD-23.2: Provide opportunities for mixed-use, office, manufacturing, and retail development that respond to market and community needs in terms of size, location, and cost.	No conflict identified. The Project proposes to amend the zoning designation of the Project Site to Mixed Use III and construct a restaurant and medical/retail building and a drive-thru restaurant. The Project is located within a developed area in Brea and would help serve the needs of the community.
Policy CD-23.4: Encourage new development along highly visible corridors that is pedestrian oriented and includes a mixture of retail, residential, and office uses.	No conflict identified. The Project, which proposes a restaurant and medical/retail building and a drive-thru restaurant, is located in a developed area of Brea adjacent to Imperial Highway and 0.1-mile southeast of Brea Boulevard. The sidewalks along abutting roadways would be maintained by the Project's design.
HOUSING ELEMENT	
Goal 1.0: Maintain and enhance the quality and affordability of existing housing and residential neighborhoods in Brea.	
Policy 1.4: Community Building - Encourage residential and mixed-use developments that focus on building community, incorporating outdoor features as living space, as well as providing a mix of amenities that benefit the surrounding neighborhood.	No conflict identified. The Project proposes the redevelopment of a developed property to provide for a restaurant and medical/retail building and a drive-thru restaurant that will offer gathering areas for the surrounding community in a mixed-use setting.
COMMUNITY RESOURCES ELEMENT	
Goal CR-13: Improve air quality.	
Policy CR-13.4: Encourage the expansion and retention of local-serving retail businesses (e.g., restaurants, family medical offices, drug stores) to reduce the number and	No conflict identified. The Project proposes to redevelop a property to provide for a restaurant and medical/retail building and a drive-thru restaurant which would provide

length of automobile trips to comparable services located in other jurisdictions.	services to the local community, helping to reduce lengthy automobile trips to other locations.
Policy CR-13.5: Encourage alternative modes of transportation, such as walking, biking, and public transportation to reduce emissions associated with automobile use.	No conflict identified. The Project includes bicycle accommodations per CalGreen to facilitate bicycle ridership. The Project is located 0.1-mile from the Orange County Transportation Authority (OCTA) Route 143 bus stop located at the intersection of Brea Boulevard and Imperial Highway.
Policy CR-13.6: Cooperate with the South Coast Air Quality Management District and Southern California Association of Governments in their efforts to implement the regional Air Quality Management Plan.	No conflict identified. An air quality impact analysis was prepared for the Project. Refer to EIR Subsection 4.2, *Air Quality*, for more detailed information. The Project would not conflict with the SCAQMD's AQMP.
PUBLIC SAFETY	
Goal PS-3: Provide safe pedestrian environments citywide.	
Policy PS-3.1: Ensure that pedestrian safety is enhanced and maintained through the inclusion of well-designed streets, sidewalks, crosswalks, traffic control devices, and school routes throughout Brea.	No conflict identified. The Project would reconstruct the driveway entrances to the Project Site on South Orange Avenue and South Flower Avenue and would retain the sidewalks along the Project Site's frontages with South Orange Avenue, South Flower Avenue, and Imperial Highway. As an alternative to the Project's design, the segment of South Flower Avenue that abuts the Site's eastern boundary could be closed as a cul-de-sac or modified in design to restrict certain turning movements at its intersection with Imperial Highway, which is discussed in EIR Section 4.12, *Transportation*, and concluded to not pose any safety concerns. Also refer to the proposed Project's Transportation Safety Study included as *Technical Appendix I*.
Policy PS-3.2: Require all developments to provide adequate safety lighting in pedestrian areas and parking lots.	No conflict identified. The Project would provide lighting at the building entrances and in the parking areas. Refer to EIR Subsection 4.1, *Aesthetics* for more detailed information.
Goal PS-4: Protect the community from the hazards associated with the transportation, use, and storage of hazardous materials in the urban environment.	
Policy PS-4.1: Ensure that hazardous materials used in businesses and industry are handled properly.	No conflict identified. The Project would comply with City regulations regarding hazardous waste management. Refer to EIR Subsection 4.8, *Hazards and Hazardous Materials,* for more detailed information.
Goal PS-6: Protect the community from wildland fires.	
Policy PS-6.2: Assure provision of adequate fire equipment access and fire suppression resources to all developed and open space areas.	No conflict identified. The Project would be built in compliance with the California Building Standards Code (CBSC) and Brea Building Code. The Project site in its redeveloped condition would receive the same level of fire protection service as the site receives in its presently developed condition.
Goal PS-7: Reduce the risk to the community from flooding hazards.	
Policy PS-7.2: Require that new developments minimize stormwater and urban runoff into drainage facilities by	No conflict identified. A Hydrology and Hydraulics Memorandum and a Preliminary Water Quality Management Plan were prepared for the Project, which

incorporating design features such as detention basins, on-site water features, or other strategies.	demonstrate that hydrology and drainage impacts would be less than significant. Refer to EIR Subsection 4.9, *Hydrology and Water Quality*, for more information.
Goal PS-8: Reduce the risk to the community from seismic activity and geologic conditions, including ground shaking, fault rupture, liquefaction, and landslides.	
Policy PS-8.2: Require seismic safety standards for construction of all new buildings.	No conflict identified. The Project would be required to be designed and constructed in accordance with applicable seismic safety guidelines, including the standard requirements of the California Building Standards Code (CBSC) and Brea Building Code. Furthermore, a geotechnical report was prepared for the Project which includes grading and construction recommendations that the Project would be required to comply with. Refer to EIR Subsection 4.6, *Geology and Soils*, for more information.
Policy PS-8.3: Continue to require geological and geotechnical investigations of all new developments in areas of potential seismic or geologic hazards as part of the environmental and development review process.	No conflict identified. A geotechnical report was prepared for the Project which includes grading and construction recommendations. Refer to EIR Subsection 4.6, *Geology and Soils*, for more information.
Goal PS-9: Minimize the impact of point source noise and ambient noise levels throughout the community.	
Policy PS-9.1: Evaluate the need to require acoustical studies for development proposals that address both direct and indirect, particularly traffic, noise impacts, and require such studies, with appropriate mitigation included, as warranted.	No conflict identified. A Noise Analysis was prepared for the Project, which determined that the Project's noise impacts would be less than significant. Refer to EIR Subsection 4.11, *Noise*, for more detailed information.
Policy PS-9.3: Ensure that acceptable noise levels are maintained near schools, hospitals, convalescent homes, and other noise sensitive areas in accordance with the City's Municipal Code and noise standards contained in the General Plan.	No conflict identified. Laurel Elementary School is located to the east of the Project Site. The Project would comply with the City's Municipal Code and General Plan regarding noise standards. Refer to EIR Subsection 4.11, *Noise*, for more detailed information.
Goal PS-11: Minimize noise impacts from sources other than transportation.	
Policy PS-11.1: Require the inclusion of noise mitigation measures, techniques, and design features in the planning, design, and construction of future development and redevelopment projects.	No conflict identified. A Noise Analysis was prepared for the Project which determined that noise impacts would be less than significant. Refer to EIR Subsection 4.11, *Noise*, for more detailed information.
Policy PS-11.3: Minimize stationary noise sources and noise emanating from construction activities and special events.	No conflict identified. A Noise Analysis was prepared for the Project which determined that noise impacts would be less than significant. Refer to EIR Subsection 4.11, *Noise*, for more detailed information.
Policy PS-11.4: Require that new non-residential development plan delivery areas away from existing residential areas.	No conflict identified. The Project's design positions delivery areas interior to the Project site and not adjacent to any residential uses.
Policy PS-11.5: Continue active enforcement to limit commercial and industrial delivery hours adjoining residential areas.	No conflict identified. Although the tenants of the Project's proposed buildings are unknown, the Project's operational characteristics would be required to comply with all City regulations regarding any potential deliveries to the Project Site.

B. City of Brea Zoning Ordinance

A zone change is requested for the Project to amend the City Zoning Map to change the zoning classification of the Project Site from "Administrative and Professional Office (C-P)" with a "Precise Development (P-D)" overlay to "Mixed Use III." Approval of the requested Zone Change would eliminate any potential inconsistency between the proposed Project and the site's underlying zoning classifications. The Project would not conflict with any development regulations and design standards in the Zoning Ordinance pertaining to the Mixed Use III zone, and there are no components of the Project's proposed Zone Change that would result in impacts to the environment that are not already evaluated and disclosed by this EIR. Impacts would be less than significant.

C. SCAG Regional Transportation Plan and Sustainable Communities Strategy

As shown in Table 4.10-2, *SCAG RTP/SCS Goal Consistency Analysis*, the Project would not conflict with the adopted goals of the RTP/SCS. The Project would not result in any land use and planning conflicts with the 2020 SCS/RTP.

Table 4.10-2 SCAG RTP/SCS Goal Consistency Analysis

RTP/SCS Goals	Goal Statement	Project Consistency Discussion
G1	Encourage regional economic prosperity and global competitiveness.	No conflict identified. This policy would be implemented by cities and the counties within the SCAG region as part of comprehensive local and regional planning efforts. It should be noted that the Project would improve the regional economy by creating new jobs and redeveloping a property with contemporary land uses that complement the mix of uses in Brea.
G2	Improve mobility, accessibility, reliability, and travel safety for people and goods.	No conflict identified. EIR Subsection 4.12, *Transportation*, evaluates Project-related transportation components. The Project includes the reconstruction of the driveways to South Orange Avenue and South Flower Avenue, with an option to close or restrict turning movements at the intersection of South Flower Avenue and Imperial Highway. Sidewalks are located along the Project Site's frontages with South Orange Avenue, South Flower Avenue, and Imperial Highway, which would remain in place. The Project would include bicycle accommodations per CalGreen to facilitate bicycle ridership.
G3	Enhance the preservation, security, and resilience of the regional transportation system.	No conflict identified. As disclosed in EIR Subsection 4.12, *Transportation,* there are no components of the Project that would result in substantial safety hazards to motorists or pedestrians.
G4	Increase person and goods movement and travel choices within the transportation system.	No conflict identified. This policy would be implemented by cities and the counties within the SCAG region as part of the overall planning and maintenance of the regional transportation system. The Project would have no adverse effect on such planning or maintenance efforts.

Table 4.10-2 SCAG RTP/SCS Goal Consistency Analysis

RTP/SCS Goals	Goal Statement	Project Consistency Discussion
G5	Reduce greenhouse gas emissions and improve air quality.	No conflict identified. Air quality is addressed in EIR Subsection 4.2, *Air Quality*, and impacts were determined to be less than significant. Additionally, and as discussed in EIR Subsections 4.7, *Greenhouse Gas Emissions*, and 4.5, *Energy*, the Project would incorporate various measures related to building design, landscaping, and energy systems to promote the efficient use of energy.
G6	Support healthy and equitable communities.	No conflict identified. An analysis of the Project's environmental impacts including topics of human health and relationship to disadvantaged populations is provided throughout this EIR, particularly in Subsection 4.2, *Air Quality*. The Project would develop the subject property with an employment-generating land use (i.e., one restaurant and medical/retail building and one drive-thru restaurant) that would provide local job opportunities to existing and future residents of the local area. Impacts to human health were found to be less than significant as analyzed in EIR Subsection 4.2. The Project would not result in any significant and unavoidable impacts.
G7	Adapt to a changing climate and support an integrated regional development pattern and transportation network.	No conflict identified. This policy provides guidance to the City of Brea to monitor the transportation network, accommodate environmentally-friendly forms of transportation, and to coordinate with other agencies as appropriate. The Project would not conflict with the City's transportation network or the City's coordination with other agencies.
G8	Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	No conflict identified. This policy would be implemented by cities and the counties within the SCAG region as part of comprehensive transportation planning efforts. EIR Subsection 4.12, *Transportation*, evaluates Project-related transportation impacts to ensure efficient travel of Project-related traffic and determines that the Project's impacts would be less than significant.
G9	Encourage development of diverse housing types in areas that are supported by multiple transportation options.	No conflict identified. This policy provides guidance to the City to establish a local land use plan that facilitates the use of transit and non-motorized forms of transportation. As discussed in EIR Subsection 4.12, *Transportation*, sidewalks along the Project Site's frontages with South Orange Avenue, South Flower Avenue, and Imperial Highway would be retained and bike racks would be incorporated into the Project design pursuant to the requirements of CALGreen, encouraging walking and bicycling in the Project area.

Table 4.10-2 SCAG RTP/SCS Goal Consistency Analysis

RTP/SCS Goals	Goal Statement	Project Consistency Discussion
G10	Promote conservation of natural and agricultural lands and restoration of habitats.	No conflict identified. An analysis of the Project's environmental impacts is provided throughout this EIR and mitigation measures are specified where warranted. As discussed in EIR Subsection 4.3, *Biological Resources*, the Project is not located within an area that contains natural or agricultural lands and would not conflict with City conservation or restoration efforts.

Source: (SCAG, 2020a, p. 9)

B. SCAQMD Air Quality Management Plan (AQMP)

The Project's consistency with the SCAQMD *2016 AQMP* was addressed in detail in EIR Subsection 4.2, *Air Quality*. As concluded in EIR Subsection 4.2, the Project would not exceed SCAQMD regional or localized emissions thresholds and would not directly cause new violations of the National Ambient Air Quality Standards (NAAQS) and/or the California Ambient Air Quality Standards (CAAQS). Although the Project is not consistent with the current General Plan land use designation for the property, the proposed Project entails redevelopment of 0.95 acres of the Project Site with buildings having a floor area ratio (FAR) that is less than what occurs on the Site under existing conditions. The Site is currently developed with two 2,799 s.f. office buildings, a 3,166 s.f. office building, and a two-story office/commercial building that contains 10,109 s.f. of floor space, which together total 18,873 s.f. The Project Applicant proposes to demolish the four existing buildings and redevelop this portion of the Project Site with a 6,000 s.f. commercial building and an approximate 2,000 s.f. drive-through restaurant, which together total approximately 8,000 s.f. Thus, the Project would reduce building space on the Site by approximately 10,873 s.f. Due to the Project having less-than-significant regional and localized air pollutant emission impacts and resulting in a reduction in building space and a lower FAR across the Site, the Project would not conflict with the AQMP and would not result in an exceedance of the AQMP's growth projection. Accordingly, the Project is consistent with the AQMP.

4.10.5 Cumulative Impact Analysis

Under existing conditions, the Project Site is developed with six commercial/office buildings, drive aisles, surface parking areas, and ornamental landscaping and is completely surrounded by roadways and other developed properties. The surrounding properties are developed with commercial, residential and public facility uses. Due to the extent of existing urbanization and that fact that that the Project Site is already developed, redevelopment of the southern 0.95-acre of the Project Site with two new commercial buildings, surface parking and landscaping would have no potential to divide an established community. Therefore, implementation of the Project would not physically divide any existing, surrounding community and would not cause or cumulatively contribute to the division of an established community.

As development occurs elsewhere throughout the City, any proposal to change the underlying land use or development intensity for a specific property could have the potential to result in conflict with applicable land plans and result in substantial, adverse environmental effects with implementation of an amendment to the applicable land use plan. However, the proposed Project entails redevelopment of 0.95 acres of the Project Site

with buildings having approximately 10,873 less s.f. than occurs under existing conditions. Due to the Project having no significant and unavoidable impacts and resulting in less building space that presently occurs, there is no reasonable potential for the Project to contribute to a cumulative exceedance of growth assumptions relied upon in the SCAQMD AQMP. For this reason, the Project would have a less than cumulatively considerable effect related to AQMP consistency. The Project would not result in any cumulatively-considerable land use and planning conflicts in the context of compliance with applicable environmental plans, policies, and regulations beyond those identified in other Subsections of this EIR.

4.10.6 Significance of Impacts Before Mitigation

Threshold a: No Impact. The Project would not physically divide an established community.

Threshold b: Less-than-Significant Impact. Although the Project includes a General Plan Amendment, the Project would not result in any significant unavoidable environmental effects. Therefore, the land use change would not cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

4.10.7 Mitigation

Land use and planning impacts would be less than significant; therefore, mitigation is not required.

4.11 NOISE

This Subsection addresses the environmental issue of noise, including existing noise levels in the Project area and the Project's potential to introduce new or elevated sources of noise. The analysis contained herein incorporates information contained in a technical report prepared by Urban Crossroads, Inc., titled "Brea Gaslight Square, Noise and Vibration Analysis" and dated January 24, 2023 (Urban Crossroads, 2023d). The report is included as *Technical Appendix G* to this EIR. Refer to Section 7.0, *References*, for a complete list of reference sources used in the analysis presented in this Subsection.

4.11.1 NOISE FUNDAMENTALS

A. Noise Definitions

Noise is simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes physical harm, or when it has adverse effects on health. Because the human ear can detect a large range of sound, the scale used to measure sound intensity is based on multiples of 10, the logarithmic scale. The unit of measure to describe sound intensity is the decibel (dB). A sound increase of 10 dB represents a ten-fold increase in sound energy and is perceived by the human ear as being roughly twice as loud. A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise sources by discriminating against very low and very high frequencies of the audible spectrum (i.e., frequencies that are not audible to the human ear). The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at a distance of three feet is roughly 60 dBA, while a jet engine is 110 dBA at approximately 1,000 feet. (Urban Crossroads, 2023d, pp. 7-8)

B. Noise Descriptors

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most used noise descriptor is the equivalent level (L_{eq}). Leq represents a steady state sound level containing the same total energy as a time varying signal over a given time period. L_{eq} values are not measured directly but are calculated from sound pressure levels typically measured in dBA. Consequently, Leq can vary depending on the time of day.

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may cause a disturbance if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is used. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time-of-day corrections require the addition of five (5) decibels to dBA L_{eq} sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA Leq sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and night hours when sound appears louder. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. The City of Brea General Plan relies on the 24-hour CNEL level to assess land use compatibility with transportation related noise sources. (Urban Crossroads, 2023d, p. 8)

C. Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The manner in which noise reduces with distance depends on geometric spreading, ground absorption, atmospheric effects, shielding, and reflection.

1. Geometric Spreading

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. (Urban Crossroads, 2023d, p. 8)

2. Ground Absorption

The path of travel for noise from a highway to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source. (Urban Crossroads, 2023d, pp. 8-9)

3. Atmospheric Effects

Receptors located downwind from a noise source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Additionally, sound levels can be increased at large distances (typically more than 500 feet) due to atmospheric temperature inversions. Other factors that may affect noise levels include air temperature, humidity, and turbulence. (Urban Crossroads, 2023d, p. 9)

4. Shielding

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation that blocks the line-of-sight typically reduces the perceived noise levels; however, for vegetation to provide a noticeable noise reduction (up to 5 dBA of noise reduction), the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of sight between the source and the receiver. (Urban Crossroads, 2023d)

D. Response to Noise

Approximately 16 percent of the population has a very low tolerance for noise and will object to any noise not of their own making. Consequently, even in the quietest environment, some noise complaints will occur. Another 20-30 percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given environment. Despite this variability in behavior on an individual level, the population as a whole can be expected to exhibit the following responses to changes in noise levels: an increase of 1 dBA cannot be perceived except in carefully controlled laboratory experiments; a change of 3 dBA is considered "barely perceptible;" and a change of 5 dBA is considered "readily perceptible." (Urban Crossroads, 2023d, p. 10)

E. Vibration

Vibration is the periodic oscillation of a medium or object. Sources of groundborne vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, groundborne vibrations may be described by amplitude and frequency. Vibration is often described in units of velocity (inches per second) and decibels (dB) and is denoted as VdB. (Urban Crossroads, 2023d, p. 11)

The background vibration-velocity level in residential areas is generally 50 VdB. Groundborne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. (Urban Crossroads, 2023d, p. 11)

4.11.2 Existing Noise Conditions

A. Existing Study Area Ambient Noise Conditions

Urban Crossroads recorded 24-hour noise readings at eight locations in the Project Site's vicinity on July 15, 2022 (Urban Crossroads, 2023d, p. 21). The measurement locations are shown in Figure 4.11-1, *Noise Measurement Locations*, and the results of the existing noise level measurements are summarized below. Noise measurement worksheets for the hourly noise levels and the minimum and maximum observed noise levels at each measurement location are provided in the Noise Analysis (refer to *Technical Appendix G*).

- Location L1 represents the noise levels located on the northwest portion of the Project Site near the commercial building located at 230 South Orange Avenue that will remain. The noise level measurements collected at Location L1 show an average daytime noise level calculated to be 56.7 dBA L_{eq} and an average nighttime noise level calculated to be 53.8 dBA L_{eq}.

- Location L2 represents the noise levels at the north boundary of the Project Site in the parking lot near an adjacent residence located at 229 South Flower Avenue. The noise level measurements collected at Location L2 show an average daytime noise level calculated to be 58.2 dBA L_{eq} and an average nighttime noise level calculated to be 53.2 dBA L_{eq}.

- Location L3 represents the noise levels near the eastern portion of the Project Site near a commercial building that will remain on the site, located at 235 South Flower Avenue. The noise level measurements collected at Location L3 show an average daytime noise level calculated to be 54.0 dBA L_{eq} and an average nighttime noise level calculated to be 51.6 dBA L_{eq}.

- Location L4 represents the noise levels located east of the Project Site on the northern end of the Laurel Elementary School property, at 200 South Flower Avenue. The noise level measurements collected at Location L4 show an average daytime noise level calculated to be 53.6 dBA L_{eq} and an average nighttime noise level calculated to be 49.1 dBA L_{eq}.

- Location L5 represents the noise levels located east of the Project Site near the Laurel Elementary School main entrance, located at 200 South Flower Avenue. The noise level measurements collected at Location L5 show an average daytime noise level calculated to be 57.9 dBA L_{eq} and an average nighttime noise level calculated to be 55.7 dBA L_{eq}.

- Location L6 represents the noise levels located south of the Project Site near CC's Learning Center located at 300 East Imperial Highway. The noise level measurements collected at Location L-6 show an average daytime noise level calculated to be 58.2 dBA L_{eq} and an average nighttime noise level calculated to be 54.2 dBA L_{eq}.

- Location L7 represents the noise levels located south of the Project Site near a residence located at 309 South Flower Avenue. The noise level measurements collected at Location L7 show an average daytime noise level calculated to be 66.7 dBA L_{eq} and an average nighttime noise level calculated to be 64.5 dBA L_{eq}.

- Location L8 represents the noise levels located south of the Project Site near a residence located at 310 South Orange Avenue. The noise level measurements collected at Location L8 show an average daytime noise level calculated to be 65.5 dBA L_{eq} and an average nighttime noise level calculated to be 63.2 dBA L_{eq}.

B. Existing Groundborne Vibration

Based on the nature of the commercial and office uses on the Project Site, there are no sources of groundborne vibration on the Project Site under existing conditions.

C. Existing Airport Noise

The Project Site is located approximately 5.3 miles northeast of the Fullerton Municipal Airport. According to the Land Use Plan for Fullerton Municipal Airport, the Project Site is outside of airport impact zones and outside of the noise impact zones (ALUC, 2019).

LEGEND:

Proposed Redevelopment Area

Measurement Locations

Source(s): Urban Crossroads (01-20-2023)

Figure 4.11-1

Not to Scale

Noise Measurement Locations

4.11.3 Regulatory Setting

The following is a brief description of the federal, State, and local environmental laws and related regulations related to noise that are applicable to the Project, Project Site, and/or the surrounding area.

A. Federal Regulations

1. Noise Control Act of 1972

The Noise Control Act of 1972 establishes a national policy to promote an environment for all Americans free from noise that jeopardizes their health and welfare. The Act also serves to 1) establish a means for effective coordination of Federal research and activities in noise control; 2) authorize the establishment of Federal noise emission standards for products distributed in commerce; and 3) provide information to the public respecting the noise emission and noise reduction characteristics of such products. While primary responsibility for control of noise rests with State and local governments, Federal action is essential to deal with major noise sources in commerce, control of which require national uniformity of treatment. The Environmental Protection Agency (EPA) is directed by Congress to coordinate the programs of all Federal agencies relating to noise research and noise control. (EPA, 2022j)

2. Federal Transit Administration

The Federal Transit Administration (FTA) published a Noise and Vibration Impact Assessment (NVIA), which provides guidance for preparing and reviewing the noise and vibration sections of environmental documents. In the interest of promoting quality and uniformity in assessments, the manual is widely used in performing noise and vibration analyses for inclusion in environmental documents. The manual sets forth the methods and procedures for determining the level of noise and vibration impact resulting from most federally-funded transit projects and for determining mitigation. The NVIA also establishes criteria for acceptable ground-borne vibration, which are expressed in terms of root mean square (rms) velocity levels in decibels and the criteria for acceptable ground-borne noise are expressed in terms of A-weighted sound levels. The FTA identifies three categories of land uses and provides Ground-Based Vibration (GBV) and Ground-Based Noise (GBN) criteria for each category of land use. (FTA, 2006, pp. 8-3 and 8-4)

3. Federal Aviation Administration

The Federal Highway Administration (FHWA) is the agency responsible for administering the federal-aid highway program in accordance with federal statutes and regulations. The FHWA developed the noise regulations as required by the Federal-Aid Highway Act of 1970 (Public Law 91-605, 84 Stat. 1713). The regulation, 23 CFR 772 *Procedures for Abatement of Highway Traffic Noise and Construction Noise*, applies to highway construction projects where a State department of transportation has requested federal funding for participation in the project. The regulation requires the highway agency to investigate traffic noise impacts in areas adjacent to federally-aided highways for proposed construction of a highway on a new location or the reconstruction of an existing highway to either significantly change the horizontal or vertical alignment or increase the number of through-traffic lanes. If the highway agency identifies impacts, it must consider abatement. The highway agency must incorporate all feasible and reasonable noise abatement into the project design. (FHWA, 2022)

The FHWA regulations for mitigation of highway traffic noise in the planning and design of federally aided highways are contained in Title 23 of the United States Code of Federal Regulations Part 772. The regulations contain noise abatement criteria, which represent the upper limit of acceptable highway traffic noise for different types of land uses and human activities. The regulations do not require meeting the abatement criteria in every instance. Rather, they require highway agencies make every reasonable and feasible effort to provide noise mitigation when the criteria are approached or exceeded. Compliance with the noise regulations is a prerequisite for the granting of Federal-aid highway funds for construction or reconstruction of a highway. (FHWA, 2022)

4. Construction-Related Hearing Conservation

The Occupational Safety and Health Administration (OSHA) hearing conservation program is designed to protect workers with significant occupational noise exposures from hearing impairment even if they are subject to such noise exposures over their entire working lifetimes. Standard 29 CFR, Part 1910 indicates the noise levels under which a hearing conservation program is required to be provided to workers exposed to high noise levels. (OSHA, 2002)

Note: This analysis does not evaluate the noise exposure of construction workers within the Project site based on CEQA requirements, and instead, evaluates the Project-related construction noise levels at the nearby sensitive receiver locations in the Project study area. Further, periodic exposure to high noise levels in short duration, such as Project construction, is typically considered an annoyance and not impactful to human health. It would take several years of exposure to high noise levels to result in hearing impairment.

B. State Plans, Policies, and Regulations

1. State of California Noise Requirements

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

2. Building Standards Code

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

residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL. (CBSC, 2022)

3. *OPR General Plan Guidelines*

Though not adopted by law, the 2017 California General Plan Guidelines, published by the California Governor's OPR, provides guidance for local agencies in preparing or updating General Plans. The Guidelines provide direction on the required Noise Element portion of the General Plans. The purpose of the Noise Element is to limit the exposure of the community to excessive noise levels. The OPR Guidelines state that General Plan policies and standards must be sufficient to serve as a guideline for compliance with sound transmission control requirements, and directly correlate to the Land Use, Circulation, and Housing Elements. The Guidelines also state that the Noise Element must be used to guide decisions concerning land use and the location of new roads and transit facilities since these are common sources of excessive noise levels. (OPR, 2017b, pp. 131-132) The City's General Plan addresses the topic of noise in the City's General Plan Safety and Noise Element. Refer below for a discussion of the City's General Plan.

C. *Local Plans, Policies, and Regulations*

1. *Fullerton Municipal Airport, Airport Environs Land Use Plan*

The Project Site is located approximately 5.3 miles northeast of the Fullerton Municipal Airport, outside of airport impact zones and outside of the noise impact zones (ALUC, 2019). The latest amendment to the Airport Environs Land Use Plan (AELUP) was on February 21, 2019. The AELUP assists in the future planning for Fullerton Municipal Airport in order to safeguard the general welfare of inhabitants within the vicinity of the airport and to ensure continued operation of the airport.

2. *City of Brea General Plan*

The City's General Plan Public Safety Element aims to substantially reduce noise and its impacts within the urban environment, with a focus on protecting residential neighborhoods, schools, and similar uses. The Public Safety Element identifies that noisy areas of the City are located directly adjacent to high volumes of traffic such as arterial roads and freeways. (Brea, 2021a)

3. *Brea Municipal Code*

Section 8.20.070 of the Brea Municipal Code sets restrictions to control noise impacts associated with construction activities. Specifically, construction activities are exempt from noise restrictions so long as construction activities occur between the hours of 7:00 a.m. and 7:00 p.m. on weekdays and Saturdays. However, if activity occurs outside these hours, a 55dBA noise standard would apply between 7:00 a.m. and 10:00 p.m. and a 50 dBA noise standard would apply between 10:00 p.m. and 7:00 a.m. (Brea, 2022a)

For operational activities, Section 8.20.050 of the Brea Municipal Code identifies exterior noise level standards for sensitive uses to be 55 dBA L_{eq} for the daytime hours (7:00 a.m. to 10:00 p.m.) and 50 dBA L_{eq} for the nighttime hours (10:00 p.m. to 7:00 a.m.). These noise standards, unless otherwise specifically indicated, apply to all residential property within a designated noise zone. Further, if the existing ambient noise level already

exceeds any of the exterior noise level limit categories, then the standard shall be adjusted to reflect the ambient conditions. (Brea, 2022a)

- **Vibration Standards**

Vibration impacts from construction and operation activities are typically evaluated against standards established under the Municipal Code, if such standards exist. The City of Brea, however, does not identify specific construction vibration level limits.

4.11.4 Methodology for Calculating Project-Related Noise Impacts

A. *Modeled Receiver Locations*

The noise-sensitive receiver locations selected for study in this EIR are representative of all existing noise receptors nearest the Project Site. It is not necessary to quantify Project-related noise levels at every single receiver location because receivers located at a similar distance from Project construction or operational activities with similar ground elevations, orientation, and intervening physical conditions as the studied receiver locations would experience the same or very similar noise effects as those disclosed herein. Receivers at a greater distance would experience lesser noise effects. (Urban Crossroads, 2023d, pp. 21-22) Refer to Figure 4.11-2, *Receiver Locations.*

B. *Construction Noise Analysis Methodology*

The Project's construction noise analysis was prepared using reference construction equipment noise levels from the Federal Highway Administration (FHWA) published in the Roadway Construction Noise Model (RCNM), which includes a national database of construction equipment reference noise emission levels. A comprehensive list of noise generating characteristics for specific types of construction equipment is provided in the RCNM database along with an acoustical usage factor to estimate the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation. (Urban Crossroads, 2023d, p. 39) Table 4.11-1, *Construction Reference Noise Levels*, shows the combined noise levels for the loudest construction equipment, assuming they operate at the same time. The construction noise analysis evaluates Project construction-related noise levels at nearby receiver locations.

C. *Stationary Noise Analysis Methodology*

To calculate the Project's estimated operational noise levels, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the Project. While sound pressure levels (e.g., L_{eq}) quantify in decibels the intensity of given sound sources at a reference distance, sound power levels (Lw) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment. (Urban Crossroads, 2023d, p. 32) The reference Project operational noise and sound power levels are summarized in Table 4.11-2, *Reference Noise Level Measurements*.

LEGEND:

Proposed Redevelopment Area | Receiver Locations | Distance from receiver to Project site boundary (in feet)

Source(s): Urban Crossroads (01-20-2023)

Figure 4.11-2

Not to Scale

Receiver Locations

Table 4.11-1 Construction Reference Noise Levels

Construction Stage	Reference Construction Activity	Reference Noise Level @ 50 Feet (dBA L_{eq})[1]	Combined Noise Level (dBA L_{eq})[2]	Combined Sound Power Level (PWL)[3]
Demolition/ Crushing	Demolition Equipment	82	86	118
	Backhoes	74		
	Concrete Saw	83		
Site Preparation	Crawler Tractors	78	80	112
	Hauling Trucks	72		
	Rubber Tired Dozers	75		
Grading	Graders	81	83	115
	Excavators	77		
	Compactors	76		
Building Construction	Cranes	73	81	113
	Tractors	80		
	Welders	70		
Paving	Pavers	74	83	115
	Paving Equipment	82		
	Rollers	73		
Architectural Coating	Cranes	73	77	109
	Air Compressors	74		
	Generator Sets	70		

[1] FHWA Roadway Construction Noise Model (RCNM).
[2] Represents the combined noise level for all equipment assuming they operate at the same time consistent with FTA Transit Noise and Vibration Impact Assessment guidance.
[3] Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or surroundings. Sound power levels calibrated using the CadnaA noise model at the reference distance to the noise source.
Source: (Urban Crossroads, 2023d, Table 8-1)

Table 4.11-2 Reference Noise Level Measurements

Noise Source[1]	Noise Source Height (Feet)	Min./Hour[2]		Reference Noise Level (dBA Leq) @ 50 Feet	Sound Power Level (dBA)[6]
		Day	Night		
Roof-Top Air Conditioning Units	5	39	28	57.2	88.9
Outdoor Courtyard Activity	5	60	30	59.8	91.5
Drive-Through Speakerphone	3	60	30	50.0	84.0
Trash Enclosure Activity	5	60	30	57.3	89.0
Vehicle Movements	5	60	60	52.6	81.1

[1] As measured by Urban Crossroads, Inc.
[2] Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the Project Site. "Daytime" = 7:01 a.m. to 10:00 p.m.; "Nighttime" = 10:01 p.m. to 7:00 a.m.
Source: (Urban Crossroads, 2023d, Table 7-1)

To fully describe the exterior operational noise levels from the Project, Urban Crossroads developed a noise prediction model using the CadnaA (Computer Aided Noise Abatement) computer program. CadnaA can analyze multiple types of noise sources using the spatially accurate Development Site plan, georeferenced Nearmap aerial imagery, topography, buildings, and barriers in its calculations to predict outdoor noise levels. Refer to Subsection 7.3 of the Project's Noise Analysis (*Technical Appendix G*) for a description of the CadnaA Noise Prediction Model parameters. Noise levels were calculated at the receiver locations shown in Figure 4.11-2.

D. Vibration Analysis Methodology

Vibration levels were predicted using reference vibration levels and logarithmic equations contained in the Federal Transit Administration's (FTA) 2018 publication: "Transit Noise and Vibration Impact Assessment" (Urban Crossroads, 2023d, p. 43). The vibration source levels for Project construction equipment are summarized in Table 4.11-3, *Vibration Source Levels for Construction Equipment*.

Table 4.11-3 Vibration Source Levels for Construction Equipment

Equipment	PPV (in/sec) at 25 feet
Small bulldozer	0.003
Jackhammer	0.035
Loaded Trucks	0.076
Large bulldozer	0.089
Vibratory Roller	0.210

Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual
Source: (Urban Crossroads, 2023d, Table 8-4)
PPV = Peak Particle Velocity

4.11.5 Basis for Determining Significance

According to Section XII of the CEQA Guidelines, the proposed Project would result in a significant impact to noise if the Project or any Project-related component would:

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

b. *Generation of excessive ground borne vibration or ground borne noise levels;*

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

In relation to Threshold "a," Project-related construction and operational activities would be subject to the applicable noise standards established by the Brea General Plan and Municipal Code. However, neither the General Plan nor the Municipal Code define the levels at which a development project's temporary or permanent noise increases are considered substantial. Under Threshold "a," CEQA requires that consideration be given to the to the magnitude of the increase, the existing ambient noise levels, and the location of sensitive receptors in order to determine if a noise increase represents a substantial increase and thus a significant adverse environmental impact. For purposes of this EIR, the metric used to evaluate the significance of the Project's increase in ambient noise levels is adapted from the Federal Interagency Committee on Noise (FICON). A detailed discussion of the noise exposure criteria is provided in Subsection 4.1 of the Project's noise impact analysis (refer to *Technical Appendix G*). Accordingly, in consideration of the City's General Plan and Municipal Code and the FICON noise exposure criteria, the Project would result in a significant noise impact during operation if any of the following conditions occur:

Project construction activities would result in a significant impact if construction noise conflicts with the City of Brea Municipal Code (Section 8.20.070) as follows:

- Construction activities occur outside of the hours permitted by the Brea Municipal Code, Section 8.20.070 (7:00 a.m. to 7:00 p.m. on any day except Sunday or on a Federal holiday; and
  - Project construction noise levels would exceed the exterior 80 dBA L_{eq} daytime or 70 dBA L_{eq} nighttime noise level standards at adjacent land uses.

Project operational activities would result in a significant impact if operational noise exceeds the levels allowed by the City of Brea Municipal Code (Section 8.20.050) and FICON criteria as follows:

- If operational (stationary-source) noise levels exceed the exterior 55 dBA L_{eq} daytime or 50 dBA L_{eq} nighttime noise level standards at sensitive receptor land uses; and
  - When the ambient noise levels at existing and future noise-sensitive land uses (e.g. residential, schools, churches, etc.) is less than 60 dBA CNEL and the Project creates a community noise level increase of greater than or equal to 5 dBA CNEL; or
  - When the ambient noise levels at existing and future noise-sensitive land uses is between 60 and 65 dBA CNEL and the Project creates a community noise level increase of greater than or equal to 3 dBA CNEL; or
  - When the ambient noise levels at existing and future noise-sensitive land uses exceed 65 dBA CNEL and the Project creates a community noise level increase of greater than or equal to 1.5 dBA CNEL.

Project-related traffic noise would result in a significant impact if traffic noise exceeds the levels established by FICON as follows:

- When off-site traffic noise levels at existing noise-sensitive land uses (e.g. residential, schools, churches, etc.) is less than 60 dBA CNEL and the Project creates a community noise level increase of greater than or equal to 5 dBA CNEL; or

- When off-site traffic noise levels at existing noise-sensitive land uses is between 60 and 65 dBA CNEL and the Project creates a community noise level increase of greater than or equal to 3 dBA CNEL; or
- When off-site traffic noise levels at existing noise-sensitive land uses exceed 65 dBA CNEL and the Project creates a community noise level increase of greater than or equal to 1.5 dBA CNEL.

In relation to Threshold "b," the Brea Municipal Code does not identify specific construction vibration level limits. Therefore, for analysis purposes, the Caltrans *Transportation and Construction Vibration Guidance Manual*, Table 19, *Vibration Damage*, is used to assess potential temporary construction-related impacts at adjacent building locations. The nearest noise sensitive buildings adjacent to the Project site can best be described as "older residential structures" with a maximum acceptable continuous vibration threshold of 0.3 peak particle velocity (PPV) inches per second (in/sec). Accordingly, for evaluation under Threshold "b," vibration levels are considered significant if Project-related activities would:

- Create or cause to be created any vibration activity that would exceed 0.3 in/sec PPV at an adjacent land use.

4.11.6 Impact Analysis

Threshold a: ***Would the Project generate 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?***

The analysis presented below summarizes the Project's potential construction noise levels and operational noise levels, including operational noise that would be generated on-site as well as off-site noise that would be generated by Project-related traffic. The detailed noise calculations for the analysis presented here are provided in Appendices 7.1 through 10.1 of the Project's Noise Analysis (see *Technical Appendix G*).

A. Construction Noise Impact Analysis

Construction activities on the Project Site would proceed in six stages: 1) demolition; 2) site preparation; 3) grading; 4) building construction; 5) paving; and 6) application of architectural coatings. These activities would create temporary periods of noise when heavy construction equipment (i.e., bulldozer, trucks, concrete mixer, portable generators, power tools) is in operation and would cause a short-term increase in ambient noise levels. The Project construction noise levels at nearby receiver locations are summarized in Table 4.11-4, *Construction Equipment Noise Level Summary*.

Project-related construction activities are expected to occur on weekdays (and, potentially, on Saturdays) during the daytime hours when the City's Municipal Code does not limit construction noise (i.e., between the hours of 7:00 a.m. and 7:00 p.m. on weekdays and Saturdays). During these hours the Project construction noise levels presented in Table 4.11-4 would not exceed the daytime 80 dBA L_{eq} significance threshold established by the City, resulting in a less-than-significant impact.

Table 4.11-4 Construction Equipment Noise Level Summary

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})						
	Demolition/ Crushing	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Highest Levels[2]
R1	74.7	71.7	74.7	72.7	74.7	68.7	74.7
R2	68.8	65.8	68.8	66.8	68.8	62.8	68.8
R3	77.8	74.8	77.8	75.8	77.8	71.8	77.8
R4	58.4	55.4	58.4	56.4	58.4	52.4	58.4
R5	66.8	63.8	66.8	64.8	66.8	60.8	66.8
R6	64.5	61.5	64.5	62.5	64.5	58.5	64.5
R7	51.4	48.4	51.4	49.4	51.4	45.4	51.4
R8	64.7	61.7	64.7	62.7	64.7	58.7	64.7

[1] Noise receiver locations are shown on Figure 4.11-2.
[2] Construction noise level calculations based on distance from the construction activity, which is measured from the Project site boundary to the nearest receiver locations. CadnaA construction noise model inputs are included in Appendix 10.1 of the Project's Noise Analysis (see *Technical Appendix G*).
Source: (Urban Crossroads, 2023d, Table 8-2)

B. Operational Noise Impact Analysis – Stationary Noise

Stationary noise sources associated with long-term Project operation are expected to include roof-top air conditioning units, outdoor courtyard activity, drive-thru speakerphone, trash enclosure activity, and vehicle movements. The assumed locations for these noise generating activities are shown in

The daytime and nighttime stationary noise levels from Project operations, as heard from nearby sensitive receptor locations, are summarized on Table 4.11-5, *Daytime Project Operational Noise Levels*, and Table 4.11-6, *Nighttime Project Operational Noise Levels*, respectively.

To demonstrate compliance with local noise regulations, the Project-only operational noise levels are evaluated against exterior level thresholds based on the City of Brea exterior noise level standards at nearby noise-sensitive locations. Table 4.11-7, *Operational Noise Level Compliance*, show operational noise levels associated with the Project will not exceed the City of Brea daytime or nighttime exterior level standards. Furthermore, as shown in Table 4.11-8, *Daytime Project Operational Noise Level* Increases, and Table 4.11-9, *Nighttime Project Operational Noise Level Increases*, Project operations are not expected to generate a substantial daytime or nighttime noise level increase at the nearest receiver locations. Accordingly, the Project's stationary noise impact would be less than significant.

Source(s): Urban Crossroads (01-20-2023)

Not to Scale

Figure 4.11-3

Operational Noise Source Locations

Table 4.11-5 Daytime Project Operational Noise Levels

Noise Source[1]	Operational Noise Levels by Receiver Location (dBA Leq)							
	R1	R2	R3	R4	R5	R6	R7	R8
Roof-Top Air Conditioning Units	49.5	45.0	51.2	36.9	42.3	42.6	33.1	44.0
Outdoor Courtyard Activity	49.1	47.2	60.0	46.6	52.6	50.2	37.5	50.9
Drive-Through Speakerphone	19.0	13.8	39.3	26.9	32.6	31.4	17.7	17.0
Trash Enclosure Activity	50.6	45.1	57.3	39.4	45.8	41.1	28.1	25.2
Vehicle Movements	53.8	47.3	57.6	34.7	44.5	41.1	28.3	32.5
Total (All Noise Sources)	**57.2**	**52.3**	**63.5**	**48.0**	**54.3**	**51.8**	**39.6**	**51.8**

[1] See Exhibit 5-A of the Project's Noise Analysis (*Technical Appendix G*) for the noise source locations.
CadnaA noise model calculations are included in Appendix 7.1 of the Project's Noise Analysis (*Technical Appendix G*).
Source: (Urban Crossroads, 2023d, Table 7-2)

Table 4.11-6 Nighttime Project Operational Noise Levels

Noise Source[1]	Operational Noise Levels by Receiver Location (dBA Leq)							
	R1	R2	R3	R4	R5	R6	R7	R8
Roof-Top Air Conditioning Units	47.1	42.6	48.8	34.5	39.9	40.2	30.7	41.5
Outdoor Courtyard Activity	45.2	43.3	56.0	42.6	48.6	46.2	33.5	47.0
Drive-Through Speakerphone	15.0	9.8	35.3	22.9	28.6	27.4	13.7	13.0
Trash Enclosure Activity	46.7	41.1	53.3	35.4	41.8	37.1	24.1	21.2
Vehicle Movements	53.8	47.3	57.6	34.7	44.5	41.1	28.3	32.5
Total (All Noise Sources)	**55.7**	**50.3**	**61.0**	**44.4**	**51.0**	**48.5**	**36.4**	**48.2**

[1] See Exhibit 5-A of the Project's Noise Analysis (*Technical Appendix G*) for the noise source locations.
CadnaA noise model calculations are included in Appendix 7.1 of the Project's Noise Analysis (*Technical Appendix G*).
Source: (Urban Crossroads, 2023d, Table 7-3)

Table 4.11-7 Operational Noise Level Compliance

Receiver Location[1]	Land Use	Project Operational Noise Levels (dBA Leq)[2]		Noise Level Standards (dBA Leq)[3]		Noise Level Standards Exceeded?[4]	
		Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R1	Office	57.2	55.7	-[5]	-[5]	No	No
R2	Residential	52.3	50.3	58.2	53.2	No	No
R3	Office	63.5	61.0	-[5]	-[5]	No	No
R4	School	48.0	44.4	53.6	49.1	No	No
R5	School	54.3	51.0	57.9	55.7	No	No
R6	School	51.8	48.5	58.2	54.2	No	No
R7	Residential	39.6	36.4	66.7	64.5	No	No
R8	Residential	51.8	48.2	65.5	63.2	No	No

[1] See Figure 4.11-2 for the receiver locations.
[2] Proposed Project operational noise levels as shown on Table 4.11-5 and Table 4.11-6.
[3] Exterior noise level standards adjusted to reflect the ambient conditions (see Table 5-1 of the Project's Noise Analysis in *Technical Appendix G*) per the City of Brea Municipal Code Section 8.20.050[C].
[4] Do the estimated Project operational noise source activities exceed the noise level standards?
[5] Receiver does represent a noise sensitive land use.
"Daytime" = 7:00 a.m. - 10:00 p.m.; "Nighttime" = 10:00 p.m. - 7:00 a.m.
Source: (Urban Crossroads, 2023d, Table 7-4)

Table 4.11-8 Daytime Project Operational Noise Level Increases

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Increase Criteria[7]	Increase Criteria Exceeded?
R2	52.3	L2	58.2	59.2	1.0	5.0	No
R4	48.0	L4	53.6	54.7	1.1	5.0	No
R5	54.3	L5	57.9	59.5	1.6	5.0	No
R6	51.8	L6	58.2	59.1	0.9	5.0	No
R7	39.6	L7	66.7	66.7	0.0	1.5	No
R8	51.8	L8	65.5	65.7	0.2	1.5	No

[1] See Figure 4.11-2 for the receiver locations. Potential impacts are limited to noise sensitive receiver locations.
[2] Total Project daytime operational noise levels as shown on Table 4.11-5.
[3] Reference noise level measurement locations as shown on Exhibit 5-A of the Project's Noise Analysis (*Technical Appendix G*).
[4] Observed daytime ambient noise levels as shown on Table 5-1 of the Project's Noise Analysis (*Technical Appendix G*).
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.
[7] Significance increase criteria as shown on Table 4-1 of the Project's Noise Analysis (*Technical Appendix G*).
Source: (Urban Crossroads, 2023d, Table 7-5)

Table 4.11-9 Nighttime Project Operational Noise Level Increases

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Increase Criteria[7]	Increase Criteria Exceeded?
R2	50.3	L2	53.2	55.0	1.8	5.0	No
R4	44.4	L4	49.1	50.4	1.3	5.0	No
R5	51.0	L5	55.7	57.0	1.3	5.0	No
R6	48.5	L6	54.2	55.2	1.0	5.0	No
R7	36.4	L7	64.5	64.5	0.0	5.0	No
R8	48.2	L8	63.2	63.3	0.1	5.0	No

[1] See Figure 4.11-2 for the receiver locations. Potential impacts are limited to noise sensitive receiver locations.
[2] Total Project nighttime operational noise levels as shown on Table 4.11-6.
[3] Reference noise level measurement locations as shown on Exhibit 5-A of the Project's Noise Analysis (*Technical Appendix G*).
[4] Observed nighttime ambient noise levels as shown on Table 5-1 of the Project's Noise Analysis (*Technical Appendix G*).
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.
[7] Significance increase criteria as shown on Table 4-1 of the Project's Noise Analysis (*Technical Appendix G*).
Source: (Urban Crossroads, 2023d, Table 7-6)

C. Off-Site Transportation Noise Impact Analysis

The Project is anticipated to generate a net increase of 510 daily trips (Urban Crossroads, 2023e). The off-site Project-related traffic represents an incremental increase to the existing roadway volumes. Due to the low trip generation, the Project's vehicular trips would not create a "barely perceptible" noise level increase of 3 dBA CNEL at nearby sensitive land uses adjacent to study area roadways since a doubling of the existing traffic volumes would be required to generate a 3 dBA CNEL increase. The Project-related off-site traffic noise levels increase due to the additional Project trips are estimated at less than 1 dBA CNEL. Due to the low traffic volumes, the Project related off-site traffic noise increases are considered less than significant and no further analysis is required.

Threshold b: Would the Project generate excessive groundborne vibration or groundborne noise levels?

A. Construction Analysis

Construction activities on the Project Site would utilize equipment that has the potential to generate vibration. Vibration levels at sensitive receptors near the Project Site during Project construction are summarized on Table 4.11-10, *Project Construction Vibration Levels*. As shown, none of the receiver locations in the vicinity of the Project Site would be exposed to vibration levels that exceed the applicable significance threshold. Accordingly, Project construction would not generate excessive or substantial temporary groundborne vibration or noise levels and a less than significant impact would occur.

Table 4.11-10 Project Construction Vibration Levels

Location[1]	Distance to Const. Activity (Feet)[2]	Typical Construction Vibration Levels PPV (in/sec)[3]						Thresholds PPV (in/sec)[4]	Thresholds Exceeded?[5]
		Small bulldozer	Jackhammer	Loaded Trucks	Large bulldozer	Vibratory Roller	Highest Vibration Level		
R1	48'	0.001	0.013	0.029	0.033	0.079	0.079	0.3	No
R2	121'	0.000	0.003	0.007	0.008	0.020	0.020	0.3	No
R3	21'	0.004	0.045	0.099	0.116	0.273	0.273	0.3	No
R4	314'	0.000	0.001	0.002	0.002	0.005	0.005	0.3	No
R5	166'	0.000	0.002	0.004	0.005	0.012	0.012	0.3	No
R6	240'	0.000	0.001	0.003	0.003	0.007	0.007	0.3	No
R7	190'	0.000	0.002	0.004	0.004	0.010	0.010	0.3	No
R8	194'	0.000	0.002	0.004	0.004	0.010	0.010	0.3	No

[1] Receiver locations are shown on Figure 4.11-2.
[2] Distance from receiver building facade to Project construction boundary (Project site boundary).
[3] Based on the Vibration Source Levels of Construction Equipment (Table 4.11-3).
[4] Caltrans Transportation and Construction Vibration Guidance Manual, April 2020, Table 19, p. 38.
[5] Does the peak vibration exceed the acceptable vibration thresholds?
"PPV" = Peak Particle Velocity
Source: (Urban Crossroads, 2023d, Table 8-5)

B. Operational Analysis

Under long-term conditions, the Project would not include or require equipment or activities that would result in perceptible groundborne vibration beyond the Project Site. Passenger vehicles would travel to and from the Project Site along local roadways; however, vibration levels for passenger vehicles operating at the posted speed limits on paved surfaces are not perceptible beyond the roadway. The Project would not result in the exposure of persons to excessive groundborne vibration or noise levels during long-term operation and a less than significant impact would occur.

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

The Project Site is not located within two miles of a public airport or airport with a land use compatibility plan. The closest airport is the Fullerton Municipal Airport located approximately 5.3 miles southwest of the Project Site. According to the Fullerton Municipal Airport AELUP, the Project Site is outside of the of the notification zone for the Fullerton Municipal Airport (ALUC, 2019). No impact would occur.

4.11.7 Cumulative Impact Analysis

A. Construction Noise

There are no known active, pending, or planned construction projects in the immediate vicinity of the Project Site that would overlap with the Project's proposed construction schedule. The area surrounding the Project Site is fully developed. Accordingly, there is no potential for the Project to contribute to the exposure of nearby sensitive receptors to substantial temporary (construction-related) increases in daytime or nighttime ambient noise levels.

B. Stationary Noise

The analysis presented for Threshold "a" addresses the Project's contribution of noise to existing cumulative noise sources (i.e., ambient noise) in the Project area. As previously shown in this Subsection, the Project's noise contribution would not be perceptible to noise-sensitive receptors in the Project area during daytime or nighttime hours. The Project's permanent stationary noise impacts would not be cumulatively-considerable.

C. Traffic Noise

As indicated under Threshold "a," due to the low trip generation, the Project-related off-site traffic noise levels increase due to the additional Project trips are estimated at less than 1 dBA CNEL. Accordingly, the Project's traffic noise contributions along study area roadways would not exceed applicable significance thresholds and, therefore, would not be cumulatively-considerable under near- or long-term conditions.

D. Groundborne Vibration and Noise

During construction, the Project's peak vibration impacts would occur during the grading phase when large pieces of equipment, like bulldozers, are operating on-site. (During the non-grading phases of Project construction, when smaller pieces of equipment are used on-site, the Project's vibration would be minimal.) Vibration effects diminish rapidly from the source; therefore, the only reasonable sources of cumulative vibration in the vicinity of the Project Site could occur on properties abutting these sites. As described above, there are no known active or pending construction projects abutting the Project Site that would overlap with the Project's proposed construction schedule. Accordingly, there is no potential for the Project to contribute to the exposure of persons to substantial temporary groundborne vibration or noise.

Under long-term conditions, the Project would not include or require equipment or activities that would result in perceptible groundborne vibration beyond the Project Site. Passenger vehicles would travel to and from the Project Site along local roadways; however, vibration levels for passenger vehicles operating at the posted speed limits on paved surfaces are not perceptible beyond the roadway. The Project would not cumulatively-contribute to the exposure of persons to excessive groundborne vibration or noise levels during long-term operation.

E. Airport Noise

The Project would not involve the construction, operation, or use of any public airports or public use airports. There are no conditions associated with implementation of the Project that would contribute airport noise or

exposure of additional people to unacceptable levels of airport noise. Accordingly, the Project would have no potential to cumulatively-contribute to impacts associated with noise from a public airport, public use airport, or private airstrip. Additionally, the Project Site and the immediately surrounding area are not subject to substantial airport- or air traffic-related noise. Accordingly, there is no potential for cumulative development to expose persons residing or working in the Project area to excessive airport-related noise levels.

4.11.8 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The Project would generate short-term construction and long-term operational noise but would not generate noise levels that exceed the standards established by the Brea General Plan or Municipal Code.

Threshold b: Less-than-Significant Impact. The Project's construction and operational activities would not result in a perceptible groundborne vibration or noise.

Threshold c: No Impact. The Project Site is not located within an area exposed to high levels of noise from the Fullerton Municipal Airport. As such, the Project would not expose people to excessive noise levels associated with a public airport or public use airport.

4.11.9 Mitigation

Project impacts would be less than significant and mitigation is not required.

4.12 TRANSPORTATION

This Subsection assesses potential transportation impacts resulting from implementation of the Project. In accordance with Senate Bill (SB) 743 and as further discussed under Subsection 4.12.2 below, the California Natural Resources Agency (CNRA) adopted changes to the CEQA Guidelines in December 2018, which identify that starting on July 1, 2020, vehicle miles traveled (VMT) is the appropriate metric to evaluate a project's transportation impacts. As of December 2018, when the revised CEQA Guidelines were adopted, automobile delay, as measured by "level of service" (LOS) and other similar metrics, no longer constitutes a significant environmental effect under CEQA. Lead agencies in California are required to use VMT to evaluate project-related transportation impacts.

To inform the content of the impact analysis in this Subsection, two reports were prepared by Urban Crossroads, 1) titled, "Brea Gaslight Square Trip Generation Assessment," dated January 20, 2023 (Urban Crossroads, 2023e), and 2) titled "Brea Gaslight Square Safety Evaluation," dated January 23, 2023 (Urban Crossroads, 2023f). Other information sources relied upon include a VMT screening analysis (Brea, 2022d), the City's General Plan (Brea, 2003a), the City's Active Transportation Plan (Brea, 2020a) and the City's Transportation Impact Analysis Guidelines (Brea, 2020b).

4.12.1 EXISTING TRANSPORTATION SETTING

A. Existing Roadway System

The primary regional travel routes serving the Project area are Interstate 5 (I-5), located approximately 6.1 miles southwest, Interstate 10 (I-10), located approximately 10.7 miles north, Interstate 605 (I-605), located approximately 11.7 miles west, and State Route 57 (SR-57), located approximately 0.8-mile southeast. Locally, the Project Site is located immediately north of and adjacent to Imperial Highway, west of South Orange Avenue, and east of South Flower Avenue. The Brea General Plan classifies Imperial Highway as a Smart Street, which are arterials with enhanced traffic-carrying capacity (Brea, 2003a, Figure CD-8). Under existing conditions, there are two private driveway connections from the Project Site, one connecting to South Orange Avenue and one connecting to South Flower Avenue. Both driveway access points allow for full turning movements, with no access restrictions.

B. Existing Truck Routes

The City of Brea designates Imperial Highway, located adjacent to the south side of the Project Site, and Brea Boulevard, located approximately 0.1-mile west of the Project Site, as truck routes (Brea, 2015).

C. Existing Transit Services

Public transit service in the region is provided by Orange County Transportation Authority (OCTA), a public transit agency that serves Orange County. Two OCTA bus routes serve the Project Site, both running along Brea Boulevard and Birch Street. The closest bus stop is located along OCTA Route 143 on Brea Boulevard north of Imperial Highway, less than 0.1-mile west of the Project Site. Additional stops along this route are located on Brea Boulevard south of Imperial Highway and on Brea Boulevard south of Birch Street. OCTA

Route 129 also runs along Brea Boulevard and Birch Street with stops on Brea Boulevard north of Birch Street and on Birch Street east of Brea Boulevard. (Urban Crossroads, 2023e, p. 30)

D. Existing Bicycle and Pedestrian Facilities

In the Project area, there is one existing Class II (on-street, striped) bicycle lane located along Brea Boulevard, north of Birch Street. Brea Boulevard is currently striped with Class II (on-street, striped) bike lanes. Based on the City's Active Transportation Plan (ATP), Birch Street and Brea Boulevard, south of Birch Street, are proposed to have bikeway improvements in the future. Sidewalks for pedestrians are located along the Project Site's frontages with South Orange Avenue, South Flower Avenue, and Imperial Highway (Google Earth, 2022). Imperial Highway and South Flower Avenue are identified for proposed future pedestrian improvements. (Urban Crossroads, 2023e, p. 25) During normal drop-off and pick-up hours for Laurel Elementary School there are school crossing guards positioned at the intersections of Brea Boulevard/Imperial Highway and Birch Street/South Flower Avenue. There are also crosswalks at South Orange Avenue/Imperial Highway, South Flower Avenue/Imperial Highway, and Birch Street/South Orange Avenue.

E. Existing Project Site Trip Generation

The Project Site currently contains six buildings, of which four are proposed for demolition as part of the proposed Project. These four buildings are occupied and generating traffic. To understand the existing traffic associated with the four buildings, traffic counts were collected at the Project Site driveways on September 20 and 21, 2022 (Tuesday and Wednesday) for vehicles accessing those buildings. Laurel Elementary School was in session on these dates, although Wednesday is an early release day where school starts at 8:00 AM but releases at 1:25 PM (regular release is at 2:10 PM). A summary of the count data collected is provided in Attachment A of *Technical Appendix H1* and is shown below in Table 4.12-1, *Existing Project Site Trip Volume.* As shown, 362 daily trips are generated by the four buildings that are proposed to be demolished as part of the proposed Project.

Table 4.12-1 Existing Project Site Trip Volume

	AM Peak Hour			Mid-Day Peak Hour			PM Peak Hour			
Land Use	In	Out	Total	In	Out	Total	In	Out	Total	Daily
Actual Vehicles:										
Existing Use										
Passenger Cars:	31	13	44	18	23	41	7	20	27	356
2-axle Trucks:	0	0	0	0	0	0	0	0	0	6
3-axle Trucks:	0	0	0	0	0	0	0	0	0	0
4+-axle Trucks:	0	0	0	0	0	0	0	0	0	0
Total Trucks:	0	0	0	0	0	0	0	0	0	6
Total Trips	**31**	**13**	**44**	**18**	**23**	**41**	**7**	**20**	**27**	**362**

Source: (Urban Crossroads, 2023e, p. 3)

4.12.2 Regulatory Setting

A. State Plans, Policies, and Regulations

1. Senate Bill 743

SB 743, which was codified in Public Resources Code Section 21099, required changes to the CEQA Guidelines regarding the analysis of transportation impacts. Pursuant to Public Resources Code Section 21099, the criteria for determining the significance of transportation impacts must "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." To that end, in developing the criteria, the OPR proposed, and the CNRA certified and adopted changes to the CEQA Guidelines in December 2018, which entailed changes to the thresholds of significance for the evaluation of impacts to transportation. The updated CEQA Guidelines include the addition of CEQA Guidelines Section 15064.3, of which Subdivision b establishes criteria for evaluating a project's transportation impacts based on project type and using automobile VMT as the metric.

B. Local Plans, Policies, and Regulations

1. SCAG Regional Transportation Plan/Sustainable Communities Strategy

On September 3, 2020, SCAG's Regional Council approved and adopted the *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy* ("*Connect SoCal*"). *Connect SoCal* is the applicable Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for the Project. The goals of *Connect SoCal* are to: 1) Encourage regional economic prosperity and global competitiveness; 2) Improve mobility, accessibility, reliability, and travel safety for people and goods; 3) Enhance the preservation, security, and resilience of the regional transportation system; 4) Increase person and goods movement and travel choices within the transportation system; 5) Reduce greenhouse gas emissions and improve air quality; 6) Support healthy and equitable communities; 7) Adapt to a changing climate and support an integrated regional development pattern and transportation network; 8) Leverage new transportation technologies and data-driven solutions that result in more efficient travel; 9) Encourage development of diverse housing types in areas that are supported by multiple transportation options; 10) Promote conservation of natural and agricultural lands and restoration of habitats. Performance measures and funding strategies also are included to ensure that the adopted goals are achieved through implementation of the RTP.

2. SCAQMD Rule 2202

Intended to reduce air pollutant emissions from vehicle tailpipes, South Coast Air Quality Management District (SCAQMD) Rule 2202 reduces overall VMT by encouraging employees to reduce trip lengths and use modes of transportation to and from work other than single occupancy vehicles. SCAQMD Rule 2202 "On-Road Motor Vehicle Mitigation Options" provides employers with a menu of options to reduce mobile source emissions generated from employee commutes, to comply with federal and state Clean Air Act requirements, Health & Safety Code Section 40458, and Section 182(d)(1)(B) of the federal Clean Air Act. With certain exception, Rule 2022 applies to any employer that employs 250 or more employees on a full or part-time basis at a worksite for a consecutive six-month period calculated as a monthly average. Among other items, employers must designate an employee to serve as an Employee Transportation Coordinator for each worksite

with 250 or more employees and implement measures on good faith to achieve an average vehicle ridership (AVR) target.

3. Orange County Congestion Management Program

The Orange County Congestion Management Program (CMP) was prepared by the Orange County Transportation Authority (OCTA). The intent of the CMP is to serve as a systematic process that provides for consistent and effective integrated monitoring and management of the multimodal transportation system. The most recent update of the CMP was in November 2021. Within the Project area, the intersection of Brea Boulevard at Imperial Highway is identified as a CMP Intersection.

4. Brea General Plan Community Development Element

The Brea General Plan contains a Community Development Element that addresses community land use patterns and intensities, infrastructure, economic development that provides high quality jobs and supports public services, and the visual character of public places and private development. The Circulation section guides continued development of the circulation system to support planned growth. The Community Development goals and policies regarding circulation that are applicable to the Project are addressed later in this Subsection (see analysis under Threshold "a").

5. Brea Active Transportation Plan

The Brea Active Transportation Plan is a community-based effort to prepare a plan for improving mobility for bicyclists, pedestrians, transit riders, and motorists in the heart of the City of Brea. The Plan identifies mobility challenges and recommends a toolbox of potential solutions to improve circulation with Brea's core. The goals and policies of the Brea Transportation Plan that are applicable to the Project are addressed later in this Subsection (see analysis under Threshold "a").

6. Orange County Measure "M"

Measure "M" (also known as OC Go) is a 30-year one half percent sales tax for transportation improvements in Orange County from 2011 through 2041. While Measure "M" is a self-executing sales tax, it bears discussion here because the funds raised through Measure "M" have funded in the past and will continue to fund new transportation facilities in Orange County, including within the City. The revenue generated by Measure "M" is to be used to fund transportation projects including, but not limited to, freeways, streets and roads, public transit, and environmental mitigation programs.

7. City of Brea Traffic Impact Fee (TIF) Program

The City of Brea created its own local Traffic Impact Fee (TIF) Program in July 1995 (Ordinance 966) to impose and collect fees from new residential, commercial, and industrial development for the purpose of funding roadways and intersections necessary to accommodate City growth as identified in the City's General Plan Community Development Element regarding circulation. These fees are required in part by Measure "M." The City's TIF program provides a funding and implementation plan to ensure an adequate and interconnected

transportation system and offset or mitigate the traffic impacts caused by new development. (Urban Crossroads, 2023e, p. 89)

4.12.3 Basis for Determining Significance

According to Section XVI of Appendix G to the CEQA Guidelines, the proposed Project would result in a significant transportation impact if the Project or any Project-related component would:

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

b. *Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b);*

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

d. *Result in inadequate emergency access.*

4.12.4 Impact Analysis

Threshold a: Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

This threshold addresses a project's potential to conflict with plans, programs, ordinances, or policies that address the circulation system, including transit, roadway, bicycle, and pedestrian facilities. A project that generally conforms with, and does not obstruct, applicable development plans, programs, ordinances, and policies is considered to be consistent. The transportation plans, policies, programs, ordinances, and standards that are relevant to the Project are identified in the analysis below. For context, the Project is expected to generate approximately 510 more vehicle trips than are being generated by the uses at the Project Site under existing conditions (Urban Crossroads, 2023e).

In order to develop the traffic characteristics of the proposed Project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021) for the proposed Project's land uses was utilized. For purposes of the trip generation assessment, the following ITE land use codes were used:

- 3,600 square feet of Strip Retail (ITE Land Use Code 822) (more conservative than medical/ dental office)
- 2,400 square foot High Turnover (Sit-Down) Restaurant use (ITE Land Use Code 932)
- 2,000 square foot Coffee/Donut Shop with Drive-Thru Window use (ITE Land Use Code 937)

As the Project is proposed to include retail and food uses, pass-by percentages were used, but limited to 25% for the sit-down restaurant and strip retail while the drive-through restaurant is limited to 50%. Pass-by trips account for trips that are currently on the existing roadway network that would stop by uses within the proposed Project on their way to their ultimate destination. Table 4.12-2, *Project Trip Generation,* shows the resulting

Project trip generation summary, which shows the redeveloped portion of the Project Site is anticipated to generate a total of 872 two-way trips per day with 119 AM peak hour trips, 62 mid-day peak hour trips, and 73 PM peak hour trips.

Table 4.12-2 Project Trip Generation

			AM Peak Hour			Mid-Day Peak Hour			PM Peak Hour			
Land Use	Quantity	Units[1]	In	Out	Total	In	Out	Total	In	Out	Total	Daily
High Turnover Sit-Down Restaurant	2.400	TSF	13	10	23	8	14	22	13	8	21	258
Pass-By Reduction (25% MD/PM/Daily):			0	0	0	-2	-2	-4	-2	-2	-4	-66
Coffee/Donut Shop with Drive-Thru	2.000	TSF	88	84	172	34	30	64	39	39	78	1,068
Pass-By Reduction (50% AM/MD/PM/Daily):			-42	-42	-84	-15	-15	-30	-20	-20	-40	-534
Strip Retail	3.600	TSF	5	3	8	7	7	14	12	12	24	196
Pass-By Reduction (25% MD/PM/Daily):			0	0	0	-2	-2	-4	-3	-3	-6	-50
Project Buildout Total:			**64**	**55**	**119**	**30**	**32**	**62**	**39**	**34**	**73**	**872**

[1] TSF = thousand square feet

Source: (Urban Crossroads, 2023e, p. 4)

Taking into consideration that the four buildings proposed for demolition generate 362 daily trips (see Table 4.12-1), the net number of new trips that would be generated by the Project is 510 trips, with 75 AM peak hour trips, 21 mid-day peak hour trips, and 46 PM peak hour trips above the trips generated by existing uses. The comparison is shown in Table 4.12-3, *Project Net New Daily Trips.*

Table 4.12-3 Project Net New Daily Trips

	AM Peak Hour			Mid-Day Peak Hour			PM Peak Hour			
Project	In	Out	Total	In	Out	Total	In	Out	Total	Daily
Existing Uses	31	13	44	18	23	41	7	20	27	362
Proposed Project	64	55	119	30	32	62	39	34	73	872
Variance (Proposed - Existing)	**33**	**42**	**75**	**12**	**9**	**21**	**32**	**14**	**46**	**510**

Source: (Urban Crossroads, 2023e, p. 4)

❑ SCAG Connect SoCal Consistency Analysis

The fundamental goals of SCAG's *Connect SoCal* are to make the SCAG region a better place to live, work, and play for all residents regardless of race, ethnicity, or income class. As indicated below, implementation of the Project would not conflict with the goals and policies of SCAG's regional planning program that are applicable to the Project and related to vehicular and non-vehicular circulation. As such, Project impacts would be less than significant.

Goal 2: Improve mobility, accessibility, reliability, and travel safety for people and goods.

No component of the Project would alter, modify, or obstruct local transportation facilities in a manner that would adversely affect the mobility, accessibility, or reliability of the local transportation network. As discussed later in this subsection under the response to Threshold "c," the Project would not result in a substantial safety hazard to motorists. The Project would not conflict with this goal from *Connect SoCal.*

Goal 3: Enhance the preservation, security, and resilience of the regional transportation system.

The Project would not conflict with the City's transportation network or affect the City's coordination with other agencies on the topic of regional transportation. The Project would retain existing Project Site frontage improvements at Imperial Highway, South Flower Avenue, and South Orange Avenue, and would not significantly or adversely impact security or resiliency of the regional transportation system. The Project Applicant would pay applicable development impact fees that would fund additional local traffic improvements and maintenance of roadway infrastructure in the Project area. The Project would not conflict with this goal from *Connect SoCal.*

Goal 4: Increase person and goods movement and travel choices within the transportation system.

The Project involves the proposed redevelopment of 0.95 acres that contain four commercial/office buildings within a developed area on a property that abuts a City-designated truck route and is in proximity to the State highway system. The Project would maintain the existing sidewalks along South Orange Avenue, South Flower Avenue, and Imperial Highway. Also, the Project would provide on-site bicycle parking facilities (bike racks) in accordance with CALGreen requirements. No component of the Project would obstruct or prevent the City's planned future bikeway improvements to Birch Street or Brea Boulevard. Accordingly, the Project would ensure that multiple travel choices are available for future employees. The Project would not conflict with this goal from *Connect SoCal.*

❑ Brea General Plan Consistency Analysis

The following provides an analysis of the Project's consistency with applicable transportation goals and policies of the Brea General Plan.

Community Development Element - Circulation

Goal CD-11: Provide a safe and efficient circulation system that meets the needs of the community.

Policy CD-11.1: Maintain a circulation system that is based upon and is in balance with the Land Use Element of the General Plan.

Evaluation of Project Consistency: The Project would not adversely alter the circulation system of the Project area. Construction will take place within the limits of the Project Site and at the connection points of the Site's private driveways with South Flower Avenue and South Orange Avenue. With the reconstruction of the Project driveways, vehicle and emergency access along South Orange Avenue and South Flower Avenue will be maintained. Based on the foregoing information, the Project would not conflict with this General Plan policy.

Policy CD-11.2: Establish Level of Service goals for designated City streets, and ensure that new development maintains these service levels.

Evaluation of Project Consistency: In accordance with SB 743, changes were adopted to the CEQA Guidelines in December 2018, which identify that starting on July 1, 2020, VMT is the appropriate metric to evaluate a project's transportation impacts. A level of service (LOS) impact would need to manifest into a demonstratable and significantly adverse effect on the physical environment to be considered significant under CEQA. As discussed under threshold "d" below, the Project's addition of 510 new daily traffic trips to the circulation system would not result in a significant safety impact. Also, as concluded by EIR Subsections 4.2, *Air Quality,* 4.7, *Greenhouse Gas Emissions,* and 4.11, *Noise,* the Project's vehicular-related air pollutant and greenhouse gas emissions and noise levels would all be less than significant. As such, the Project has no reasonable potential of causing a significant environmental effect associated with LOS goals.

Policy CD-11.3: Plan neighborhood streets, pedestrian walks, and bicycle paths as a system of fully connected routes throughout the City.

Evaluation of Project Consistency: The Project would maintain the sidewalks along South Orange Avenue, South Flower Avenue, and Imperial Highway. Also, the Project would provide on-site bicycle parking facilities (bike racks) in accordance with CALGreen. No component of the Project would obstruct or prevent the City's planned future bikeway improvements to Birch Street or Brea Boulevard. Accordingly, the Project would ensure that multiple travel choices are available for future employees. Based on the foregoing information, the Project would not conflict with this General Plan policy.

Policy CD-11.4 Protect residential streets from arterial street traffic.

Evaluation of Project Consistency: The Project proposes redevelopment of a 0.95-acre portion of a property that is currently developed with six commercial/office buildings. Access to the Project Site would continue to occur by existing driveways connecting with South Orange Avenue and South

Flower Avenue. Residential land uses are located to the north of the Project Site, with access to South Orange Avenue, South Flower Avenue, Birch Street, and an alley that runs through the middle of the residential area from Birch Street. With several access points to the residential area, redevelopment of the southern portion of the Project Site would not bring arterial street traffic through the residential area. Based on the foregoing information, the Project would not conflict with this General Plan policy.

Policy CD-11.5 Use traffic calming measures in residential neighborhoods where warranted and appropriate to enhance safety for pedestrians.

Evaluation of Project Consistency: A residential area is located to the north of the Project Site. Bollards are proposed as part of the Project to block vehicular access to the alley that runs through the middle of the residential area between the Project Site and Birch Street. The alley is the only direct access to the residential area from the Project Site and with access blocked, residential pedestrian safety would not be affected. Based on the foregoing information, the Project would not conflict with this General Plan policy.

Policy CD-11.6: Utilize creative methods to reduce congestion and improve circulation.

Evaluation of Project Consistency: The Project would not adversely alter the circulation system of the Project area. Construction would take place within the limits of the Project Site other than at the driveway connection points with South Flower Avenue and South Orange Avenue. With the reconstruction of the Project driveways, vehicle and emergency access along South Orange Avenue and South Flower Avenue will be maintained. Based on the foregoing information, the Project would not conflict with this General Plan policy.

Policy CD-11.10: Work with the Brea Olinda Unified School District to establish safe routes to all schools and to facilitate better circulation surrounding schools in the A.M. and P.M. peak traffic periods.

Evaluation of Project Consistency: The City of Brea is coordinating with the Brea Olinda Unified School District and with Laurel Elementary School regarding the Project regarding the assurance of student safety during both construction and operation of the Project. The Project would not physically affect the sidewalk system or the crossing guard positioning or crossing guard schedule. Closing South Flower Avenue at Imperial Highway as a potential option to improve pedestrian safety for Laurel Elementary School is evaluated in EIR Section 6.0 as the "Flower Avenue Closure Alternative." Based on the foregoing information, the Project would not conflict with this General Plan policy.

Policy CD-11.11: Examine alternative methods such as traffic calming, landscaping, provision of bike/transit lanes to slow traffic, improve street capacity, and increase safety.

Evaluation of Project Consistency: No public right-of-way improvements are proposed as part of the Project. Abutting streets including Imperial Highway, South Flower Avenue, and South Orange Avenue are at their ultimate configurations under existing conditions adjacent to the Project Site. As part of the Project on-site bicycle parking facilities (bike racks) would be provided in accordance with

CALGreen. No component of the Project would obstruct or prevent the City's planned future bikeway improvements to Birch Street or Brea Boulevard. Bollards are proposed as part of the Project to block access to the alley that runs through the middle of the residential area between the Project Site and Birch Street to improve residential pedestrian safety. The potential of closing South Flower Avenue at Imperial Highway is studied in EIR Section 6.0 as an option to potentially improve pedestrian safety associated with Laurel Elementary School. Based on the foregoing information, the Project would not conflict with this General Plan policy.

Goal CD-12: Promote and support an efficient public transportation system.

Policy CD-12.5: Require new developments to incorporate transit-oriented design features, as appropriate.

Evaluation of Project Consistency: The Project Site is located less than 0.1-mile east of an OCTA Route 143 bus stop located on Brea Boulevard north of Imperial Highway. Additionally, on-site bicycle parking facilities (bike racks) would be provided as part of the Project in accordance with CALGreen requirements. Based on the foregoing information, the Project would not conflict with this General Plan policy.

Policy CD-12.6: Balance accommodations for automobiles, transit, bicycles, and pedestrians in the design of new streets and streetscape improvements.

Evaluation of Project Consistency: No public right-of-way improvements are proposed as part of the Project. Abutting streets including Imperial Highway, South Flower Avenue, and South Orange Avenue are at their ultimate configurations under existing conditions adjacent to the Project Site. Vehicular access to the Project Site would be provided via driveways accessing South Orange Avenue and South Flower Avenue. The Project would maintain the sidewalks along South Orange Avenue, South Flower Avenue, and Imperial Highway. The Project Site is located less than 0.1-mile east of an OCTA Route 143 bus stop located on Brea Boulevard north of Imperial Highway. As part of the Project on-site bicycle parking facilities (bike racks) would be provided in accordance with CALGreen. No component of the Project would obstruct or prevent the City's planned future bikeway improvements to Birch Street or Brea Boulevard. Bollards are proposed as part of the Project to block access to the alley that runs through the middle of the residential area between the Project Site and Birch Street to improve residential pedestrian safety. The potential of closing South Flower Avenue at Imperial Highway is studied in EIR Section 6.0 as an option to potentially improve pedestrian safety associated with Laurel Elementary School. Based on the foregoing information, the Project would not conflict with this General Plan policy.

Goal CD-13: Provide for an extensive, integrated, and safe bicycle, hiking, and pedestrian network throughout the community, and make Brea a pedestrian-friendly community.

Policy CD-13.4: Require new developments to provide for the use of alternative modes of transit via internal

trails or travel ways – public or private – for pedestrians and vehicles other than cars. New developments shall include such features as well-designed sidewalks and parkways, bike lanes and paths, and dedicated bus turn-outs.

Evaluation of Project Consistency: The portion of the Project site proposed for redevelopment is only 0.95 acres with limited ability to promote alternative transportation modes as a component of the Project is a drive-thru restaurant that is inherently auto-oriented. Nonetheless, the Project would maintain the sidewalks along South Orange Avenue, South Flower Avenue, and Imperial Highway. The Project Site is located less than 0.1-mile east of an OCTA Route 143 bus stop located on Brea Boulevard north of Imperial Highway. As part of the Project on-site bicycle parking facilities (bike racks) would be provided in accordance with CALGreen. No component of the Project would obstruct or prevent the proposed future bikeway improvements to Birch Street or Brea Boulevard. Bollards are proposed as part of the Project to block vehicular access to the alley that runs through the middle of the residential area between the Project Site and Birch Street to improve residential pedestrian safety. The potential of closing South Flower Avenue at Imperial Highway is studied in EIR Section 6.0 as an option to potentially improve pedestrian safety associated with Laurel Elementary School. Based on the foregoing information, the Project would not conflict with this General Plan policy.

Community Development Element – Land Use

Goal CD-1: Provide a balance of land uses to meet the present and future needs of all residents.

Policy CD-1.9 Encourage new development that is organized around compact, walkable, mixed-use neighborhoods and districts to conserve open space resources, minimize infrastructure costs, and reduce reliance on the automobile.

Evaluation of Project Consistency: The Project's design is compact and walkable although it is recognized that a component of the Project is a drive-thru restaurant that is inherently auto-oriented. The Project is located in an already developed area of downtown Brea less than 0.1-mile from the OCTA Route 143 bus stop located on Brea Boulevard north of Imperial Highway. On-site bicycle parking facilities (bike racks) would also be provided as part of the Project in accordance with CALGreen requirements. Based on the foregoing information, the Project would not conflict with this General Plan policy.

Goal CD-4: Maintain and improve the vitality, economic strength, accessibility, and livability of Downtown.

Policy CD-4.2 Improve transportation, pedestrian, and visual connections between Downtown and the rest of the community.

Evaluation of Project Consistency: No public right-of-way improvements are proposed as part of the Project. Abutting streets including Imperial Highway, South Flower Avenue, and South Orange Avenue are at their ultimate configurations under existing conditions adjacent to the Project Site. The Project would redevelop 0.95 acres located in downtown Brea with restaurant and retail/medical facilities for community use. The Project would assist in improving the vitality and economy of the

downtown Brea area. Based on the foregoing information, the Project would not conflict with this General Plan policy.

Policy CD-4.3 Utilize traffic calming measures as appropriate to improve safety and access.

Evaluation of Project Consistency: Bollards are proposed as part of the Project to block vehicular access to the alley that runs through the middle of the residential area between the Project Site and Birch Street. The alley is the only direct access to the residential area from the Project Site and with access blocked, residential pedestrian safety would not be affected. The potential of closing South Flower Avenue at Imperial Highway is studied in EIR Section 6.0 as an option to potentially improve pedestrian safety associated with Laurel Elementary School. Based on the foregoing information, the Project would not conflict with this General Plan policy.

- **Brea Active Transportation Plan**

The following provides an analysis of the Project's consistency with applicable goals and policies of the Brea Active Transportation Plan.

Goal A: Provide access for people of all ages and abilities.

Policy A-5: Provide enhancements to transit service and seamless bicycle and pedestrian connections from transit to destinations.

- *Action A-5.c: Provide bicycle parking and rentals through requiring them at employment centers, commercial centers, recreational amenities and civic facilities.*

Evaluation of Project Consistency: The Project would provide on-site bicycle parking facilities (bike racks) in accordance with CALGreen and the Project's design allows for pedestrian and bicycle movement on and through the Site. As sidewalk improvements already exist along the Project Site's street frontages, no sidewalk improvements are proposed or needed adjacent to the Project Site. No component of the Project would obstruct or prevent the City's planned future bikeway improvements to Birch Street or Brea Boulevard. Accordingly, the Project not prevent from the City from ensuring that multiple travel choices are available in Brea. Based on the foregoing information, the Project would not conflict with this Brea Active Transportation Plan policy.

Goal C: Institute creative design solutions for places and streets.

Policy C-2: Support sustainable and attractive landscaping on roadways and public spaces throughout Brea's Core.

- *Action C-2.b: Support sustainable landscaping treatments including drought-tolerant and low-water-use trees, shrubs and ground cover.*

Policy C-3: Conduct routine maintenance on all public rights-of-way and spaces to ensure pleasant and seamless travel.

Policy C-6: Require incoming developments to provide attractive public spaces and streets that incorporate facilities for all users.

- *Action C-6.a: Add sustainable transportation infrastructure through developer agreements or mitigations, including secure bicycle parking, reserved parking for zero emission vehicles, and installation of electric vehicle charging stations.*
- *Action C-6.b: Require streetscape improvements for new developments to foster pedestrian-friendly environments, including wide sidewalks, pedestrian-scaled lighting, street furniture and landscaping. This includes consistent siting of benches, trash cans, public art, shade trees, and the planting of low shrubs or ground cover to maintain sight lines and visibility.*
- *Action C-6.c: Require sidewalks on both sides of the street for every new development where sidewalks are not currently present.*
- *Action C-6.d: Widen sidewalks, bikeways or trails when new developments are adjacent to a proposed bikeway or trail, the developer should provide right-of-way and potentially funding to construct facilities as part of a condition of approval on the project.*

Evaluation of Project Consistency: The Project proposes landscaping along the perimeter of the Project Site, within the parking areas, and around the proposed new buildings. Landscaping would include a mix of drought-tolerant trees, shrubs, and ground covers which would provide an aesthetically pleasing environment. Carpool and clean air vehicle preferred parking spaces are required to be designated on the site in accordance with CALGreen. Based on the foregoing information, the Project would not conflict with this Brea Active Transportation Plan policy.

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

The City of Brea conducted a VMT screening analysis for the proposed Project, which indicated that the proposed Project screens out of further VMT analysis. The Project proposes a local serving business of less than 50,000 s.f. Accordingly, it was determined, by definition, that the proposed Project would have no probable VMT impact. (Brea, 2022d) Accordingly, the Project would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3 and impacts would be less than significant.

Threshold c: Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The types of traffic generated during operation of the Project (i.e., passenger cars and a limited number of trucks) would be compatible with the type of traffic observed along adjacent roadways under existing conditions. All proposed improvements within the public right-of-way such reconstruction of the Project Site's driveway connections to South Flower Avenue and South Orange Avenue would be installed in conformance with City design standards. If any component of Project construction would occur in the public right-of-way and require the partial or full closure of a sidewalk and/or travel lane, all work would be required to adhere to the applicable construction control practices that are specified in the *State of California Department of Transportation Construction Manual* and the *California Manual on Uniform Traffic Control Devices*, to

minimize potential safety hazards (Caltrans, 2021)(FHWA, 2017). Urban Crossroads, a professional transportation engineering firm, reviewed the Project's site plan drawings and determined that no hazardous transportation design features would be introduced within the City public right-of-way through implementation of the Project. Refer to the Project's Transportation Safety Study in *Technical Appendix I*.

Urban Crossroads also reported that pedestrian facilities and good connectivity currently exist along the Project Site's road frontages. There are existing two-way pedestrian ramps and crosswalks along South Orange Avenue, South Flower Avenue, Birch Street, and Imperial Highway. Pedestrians currently use and will continue to use the existing crosswalks along Imperial Highway and Birch Street to cross South Orange Avenue and South Flower Avenue. There are no existing or proposed mid-block crosswalks at South Orange Avenue or South Flower Avenue. The Project driveways are required to be designed when reconstructed to comply with ADA standards and City of Brea standards prior to occupancy of the Project Site's new buildings. (Urban Crossroads, 2023f, p. 6)

Pedestrian and bicyclist activity in the in the Project Site vicinity is light with exception of the Laurel Elementary School admission/dismissal times. During school admission and dismissal times, school crossing guards facilitate pedestrian movements at the intersections of South Flower Avenue & Birch Street and Flower Avenue & Imperial Highway. Urban Crossroads in their professional opinion does not expect that addition of the proposed Project would significantly increase pedestrian and bicyclist activity in the area. Based on existing pedestrian activity and existing pedestrian facilities, it is anticipated that pedestrians destined to or from the Project Site will use existing sidewalks and crosswalks. Per California Vehicle Code 21200, cyclists are considered vehicles and have the same responsibilities as motor vehicle drivers (CA Legislative Info, n.d.). It is not anticipated that the proposed Project would increase bike hazards since the roadways are designed to State and City standards. Despite observing the occasional midblock crossing during field visits to the site, most pedestrians use the existing sidewalks and crosswalks in a safe and prudent manner and thus it is anticipated that patrons of the redeveloped Project Site will do so as well. (Urban Crossroads, 2023f, p. 7)

Based on the foregoing information, the Project's construction and operation would not create or substantially increase safety hazards due to a design feature or incompatible use. Impacts would be less than significant.

***Threshold d*: Would the Project result in inadequate emergency access?**

The types of traffic generated during operation of the Project (i.e., passenger cars and trucks) would be compatible with the type of traffic observed along surrounding roadways under existing conditions. In addition, all proposed improvements within the public right-of-way such as reconstruction of the Project's driveway connections with South Flower Avenue and South Orange Avenue would be installed in conformance with City design standards. The Brea Police Department, Brea Fire Department, and Brea Public Works Department have reviewed the Project design features and determined that no hazardous transportation design features would be introduced. Specifically, all Project construction materials and equipment would be stored/staged on the Project Site and would not interfere with emergency vehicles traveling along South Orange Avenue, South Flower Avenue, or Imperial highway. Any Project construction activities that would occur within the South Orange Avenue and South Flower Avenue public right-of-way and requires a partial or full closure of a sidewalk or vehicle travel lane would require a traffic control plan that complies with the *California Manual on Uniform Traffic Control Devices* and that must be approved by the City of Brea to ensure that emergency

response is not adversely affected (FHWA, 2017). Accordingly, the Project's construction and operation would not create or substantially increase safety hazards due to a design feature or incompatible use. No impact would occur.

4.12.5 Cumulative Impact Analysis

As described under the response to Threshold "a," the Project would not conflict with an applicable program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities and, thus, would not cumulatively contribute to a conflict or obstruction with an applicable transportation-related program.

The Project would result in a less-than-significant VMT impact based on the small project screening criteria and therefore would not contribute a cumulatively-considerable VMT impact.

The Project would not contribute to a significant cumulative impact under the topics discussed under Thresholds "c" and "d" because the Project would not cause or exacerbate existing transportation design safety concerns or adversely affect emergency access and there are no cumulative development projects adjacent to the Project Site that could contribute additive effects that could degrade motor vehicle or pedestrian safety or emergency vehicle access in proximity to the Project Site.

4.12.6 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The Project would not conflict with an applicable program, plan, ordinance or policy addressing the circulation system.

Threshold b: Less-than-Significant Impact. The Project meets the City's small project screening criteria and is thus concluded to have a less-than-significant VMT impact.

Threshold c: Less-than-Significant Impact. The Project would not introduce any significant transportation safety hazards due to a design feature or incompatible use.

Threshold d: No Impact. Adequate emergency access would be provided to and through the Project Site during construction and long-term operation. The Project would not result in inadequate emergency access to the Site or surrounding properties.

4.12.7 Mitigation

The Project would result in a less-than-significant transportation impact; no mitigation is required.

4.13 TRIBAL CULTURAL RESOURCES

The Subsection evaluates the potential for Project-related activities to impact sensitive tribal cultural resources. The tribal cultural resources assessment included a cultural resources records search of the Project Site and a half-mile radius around the Project Site (SCCIC, 2022). The records search is confidential and not included as part of this EIR, but it is on file at the City of Brea. Under existing law, environmental documents must not include information about the location of archeological sites or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records Act (Cal. Code Regs. Section 15120(d)).

4.13.1 EXISTING CONDITIONS

The Project Site is fully developed with six commercial/office buildings. As the Project Site is developed and currently an actively-used commercial/office property, hardscape, landscaping, and commercial/office buildings cover the entire Project Site. As such, there is no reasonable potential for tribal cultural resources to exist on the surface of the property. The existing buildings were constructed in the 1990s, and due to their modern age have no reasonable potential to be considered historic resources of importance to a Native American tribe.

An archaeological records search was conducted through the South Central Coastal Information Center (SCCIC) at California State University (CSU), Fullerton. The records search provided information regarding previous archaeological studies in the Project area and any previously recorded sites within a half-mile radius of the Project site. The results of this records search indicate that no archaeological resources have been recorded on the Project Site or within a half-mile radius of the Site.

4.13.2 APPLICABLE REGULATORY REQUIREMENTS

A. State Regulations

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

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

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

SB 18 requires local governments to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process. These consultation and notice requirements apply to adoption and amendment of both general plans (defined in Government Code § 65300 et seq.) and specific plans (defined in Government Code § 65450 et seq.). Although SB 18 does not specifically

mention consultation or notice requirements for adoption or amendment of specific plans, existing state planning law requires local governments to use the same processes for adoption and amendment of specific plans as for general plans (see Government Code § 65453). Therefore, where SB 18 requires consultation and/or notice for a general plan adoption or amendment, the requirement extends also to a specific plan adoption or amendment.

2. Assembly Bill 52 (AB 52)

California Assembly Bill 52 (AB 52) (2014) Chapter 532 amended Section 5097.94 of, and added Sections 21073, 21074, 21080.3.1, 21080.3.2, 21802.3, 21083.09, 21084.2 and 21084.3 to the California Public Resources Code, relating to Native Americans. AB 52 was approved on September 25, 2014. The legislature added new requirements regarding tribal cultural resources in Assembly Bill 52 (AB 52). By including tribal cultural resources early in the CEQA process, the legislature intended to ensure that local and Tribal governments, public agencies, and project proponents would have information available, early in the project planning process, to identify and address potential adverse impacts to tribal cultural resources (OPR, 2017a). By taking this proactive approach, the legislature also intended to reduce the potential for delay and conflicts in the environmental review process.

The Public Resources Code now establishes that "[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." (Pub. Resources Code, § 21084.2.) To help determine whether a project may have such an effect, the Public Resources Code requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. That consultation must take place prior to the determination of whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project (Pub. Resources Code, § 21080.3.1.).

If a lead agency determines that a project may cause a substantial adverse change to tribal cultural resources, the lead agency must consider measures to mitigate that impact. Public Resources Code § 20184.3 (b)(2) provides examples of mitigation measures that lead agencies may consider to avoid or minimize impacts to tribal cultural resources.

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

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

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

In the latter instance, the lead agency must determine that the resource meets the criteria for listing in the state register of historic resources. In applying those criteria, a lead agency must consider the value of the resource to the tribe. (OPR, 2017a)

3. *State Health and Safety Code*

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

4.13.3 Basis for Determining Significance

According to Section XVII of Appendix G to the CEQA Guidelines, the proposed Project would result in a significant impact to tribal cultural resources if the Project or any Project-related component would:

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

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

   ii) *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.*

4.13.4 IMPACT ANALYSIS

Threshold a:	***Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?***

Under existing conditions, the Project Site is fully developed and in use as a commercial/office property. No prehistoric resource sites, features, places, or landscapes were identified on the Project Site during the records search that are either listed or eligible for listing in the California Register of Historic Places. To be eligible for the Register, (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852), a resource must include the following:

A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

B. Is associated with the lives of persons important in our past;

C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

D. Has yielded, or may be likely to yield, information important in prehistory or history.

No resources on the Project Site were identified in the records search that meet any of the four criteria listed above to be eligible for the California Register. Of the four buildings that are proposed for demolition on the Project Site, two of the buildings were constructed in 1990 and two were constructed in 1995. No resources were identified that had the potential to be considered a tribal cultural resource. Tribal cultural resources, however, include resources with inherent tribal values that are difficult to identify through the same means as archaeological resources. These resources can be identified and understood through direct consultation with the tribes who attach tribal value to the resource. Tribal cultural resources may include Native American archaeological sites, but they may also include other types of resources such as a cultural landscape. Also relevant is the category termed “traditional cultural property” which is typically associated with cultural resource management performed under federal auspices. “Traditional” in this context refers to those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or through practice. The traditional cultural significance of a historic property, then, is derived from the role the property plays in a community’s historically rooted beliefs, customs, and practices. A traditional cultural property can be defined, generally, as one that is eligible for inclusion in the National Register of Historic Places (NRHP) because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community’s history, and (b) are important in maintaining the continuing

cultural identity of the community. A landscape can be a traditional cultural property and by extension a tribal cultural resource, provided the cultural landscape meets the criteria and that the landscape is geographically defined in terms of the size and scope. The appropriate treatment of tribal cultural resources is determined through consultation with tribes having cultural affiliation.

As part of the SB 18 and AB 52 consultation processes required by State law, the City of Brea sent notification of the Project to Native American tribes with possible traditional or cultural affiliation to the Project area. No tribal consultation requests were received in response to the SB18 and AB 52 consultation invitations.

As discussed under EIR Subsection 4.4, the Project Site does not contain a known cemetery site and human remains have not been previously discovered on the Site. Mandatory compliance with State law (California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98) would ensure that, in the unlikely event that human remains are discovered during Project construction, the remains would be identified in accordance with proper protocols and the remains would be treated or disposed with appropriate dignity. Accordingly, the Project would not result in a substantial adverse effect to tribal cultural resources associated with human remains.

Although no known tribal cultural resources are located on the surface of the Site or are known to exist beneath the surface of the Site due to prior ground-disturbing construction activities, there is a remote potential that tribal cultural resources could be encountered during the Project's subsurface construction activities. If such resources are encountered and are not properly identified and treated, a significant impact could occur.

4.13.5 Cumulative Impact Analysis

The potential for Project construction to result in cumulatively-considerable impacts to tribal, religious, and cultural resources was analyzed in conjunction with other projects located in northern Orange County that occur in the same tribal influence areas as the Project Site. The other development projects within these areas would have a similar potential to uncover tribal cultural resources during construction activities. Therefore, the potential for Project construction to impact tribal cultural resources is a cumulatively-considerable impact for which mitigation is required.

4.13.6 Significance of Impacts Before Mitigation

Threshold a: Significant Direct and Cumulatively-Considerable Impact. The Project has the remote potential to result in significant impacts to tribal cultural resources in the absence of protective measures in the event that such resources are discovered during ground-disturbing construction activities.

4.13.7 Mitigation

Mitigation Measures MMs 4.4-1 through 4.4-3 shall apply (refer to Subsection 4.4, *Cultural Resources*).

4.13.8 Significance of Impacts After Mitigation

Threshold a: Less-than-Significant with Mitigation Incorporated. Implementation of MMs 4.4-1 through 4.4-3 would ensure the proper identification and subsequent treatment of any significant tribal cultural resources

that may be encountered during ground-disturbing activities associated with Project development. With implementation of the required mitigation, the Project's potential impact to significant tribal cultural resources would be reduced to less than significant.

4.14 UTILITIES AND SERVICE SYSTEMS

This Subsection addresses the topics of water service and supply, wastewater collection and treatment, storm water drainage management, and solid waste collection and disposal, and relies on publicly available information provided by local service providers and information provided by Kimley Horn & Associates, the Project Applicant's civil engineer. A complete list of references for information relied upon to prepare this Subsection can be found in EIR Section 7.0, *References*.

4.14.1 EXISTING CONDITIONS

A. Water Service

The City of Brea Water Services Division provides potable water to the Project Site. The City meets all of its water demands with a combination of imported water and local groundwater, working with two primary agencies, the California Domestic Water Company (CDWC) and Municipal Water District of Orange County (MWDOC). The City's main source of water supply is imported groundwater from the Main San Gabriel Basin delivered through CDWC, and it should be noted that the City has relied on 99% imported groundwater from CDWC with the remaining 1% being supplied from local groundwater. It is projected by 2045, the water supply portfolio will change to approximately 92.5% imported water from CDWC, 6.5% imported water from MWDOC, and 1% local groundwater. (Brea, 2021) Under existing conditions, the Project Site contains six commercial/office buildings that consume water.

B. Wastewater Service

Wastewater services for the Project Site are provided by Orange County Sanitation for collection and treatment at plants located in the cities of Fountain Valley (Plant No. 1) and Huntington Beach (Plant No. 2). Plant No. 1 has a primary treatment capacity of 204 million of gallons per day (MGD) and Plant No. 2 has a primary treatment capacity of 168 MGD (OCSD, 2011). Under existing conditions, an 8-inch sewer line runs from the alley north of the Project, through the central portion of the Project Site, to Imperial Highway. Under existing conditions, the Project Site contains six commercial/office buildings that produce waste water.

C. Storm Water Conveyance Facilities

Under existing conditions, storm water runoff from the Project Site's buildings and parking lot area drains southerly via surface flow from the northeastern and southeastern corners of the Project Site. Runoff is captured by a sidewalk parkway drain on the southwestern portion of the Project Site where it enters the public storm drain system. Off-site runoff also enters the Project Site via the alley and parking lot located just north and adjacent to the Project Site. Runoff from the center high point of the alley to Birch Street drains north. Flows from this area surface flow south onto the Project Site to the existing valley gutter which conveys the on-site flows to the parkway drain and public storm drain system. The storm drain system conveys flows southwest to discharge into the Artesia-Norwalk Drain, which conveys flows further southwest to discharge into Coyote Creek and drain to the San Gabriel River Estuary before discharging into the Pacific Ocean. No storm water quality infrastructure presently exists on the site. (Kimley Horn, 2022a, p. 2)

D. Solid Waste Collection and Disposal

The City of Brea contracts with the private sector for solid waste collection services. The County of Orange, via OC Waste & Recycling (OCWR), owns and operates three active Class III landfills: The Olinda-Alpha landfill within Brea's sphere of influence, the Frank R. Bowerman Landfill in Irvine, and the Prima Deshecha Landfill in San Juan Capistrano. The Olinda Alpha Landfill is approximately 565 acres and has enough projected capacity to serve residents and businesses until 2030. Olinda's average disposal rate is nearly 7,000 tons per day (TPD), although it permits up to 8,000 TPD. The Frank R. Bowerman Landfill is approximately 725 acres and has enough projected capacity to serve residents and businesses until approximately 2053. The Bowerman Landfill is permitted for 11,500 TPD maximum with an 8,500 TPD annual average. The Prima Deshecha Landfill is approximately 1,530 acres and has a projected capacity to serve residents and businesses until approximately 2012. The Prima Landfill is permitted to accept up to 4,000 TPD. Under existing conditions, the Project Site contains six commercial/office buildings that generate solid waste. (OCWR, n.d.)

4.14.2 Regulatory Setting

The following is a brief description of the federal, state, and local environmental laws and related regulations related to utilities and service systems.

A. Federal Plans, Policies, and Regulations

1. Applicable Water Supply Regulations

- Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was substantially reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry, and also has set water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. (EPA, 2022e)

- Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was established to protect the quality of drinking water in the U.S. This law focuses on all waters actually or potentially designed for drinking use, whether from above ground or underground sources. The Act authorizes EPA to establish minimum standards to protect tap water and requires all owners or operators of public water systems to comply with these primary (health-related) standards. The 1996 amendments to SDWA require that EPA consider a detailed risk and cost assessment, and best available peer-reviewed science, when developing these standards. State governments, which can be

approved to implement these rules for EPA, also encourage attainment of secondary standards (nuisance-related). Under the Act, EPA also establishes minimum standards for state programs to protect underground sources of drinking water from endangerment by underground injection of fluids. (EPA, 2022k)

B. State Plans, Policies, and Regulations

1. Applicable Water Supply Regulations

❑ Water Conservation in Landscaping Act

The Water Conservation in Landscaping Act was established to ensure adequate water supplies are available for future uses. To promote the conservation and efficient use of water, the Act requires local agencies to adopt a water efficient landscape ordinance. When such an ordinance had not been adopted, a finding as to why (based on the climatic, geologic, or topographical conditions) such an ordinance is not necessary, must be adopted. In the absence of such an ordinance or findings, the policies and requirements contained in the "model" ordinance drafted by the State of California shall apply within the affected jurisdiction. (CA Legislative Info, n.d.)

❑ Water Recycling in Landscaping Act

In 2000, Senate Bill 2095 (Water Recycling in Landscaping Act) was approved by Governor Davis requiring any local public or private entity that produces recycled water and determines that within 10 years it will provide recycled water within the boundaries of a local agency, to notify the local agency of that fact. In turn, local agencies are required to adopt and enforce within 180 days a specified recycled water ordinance, unless the local agency adopted a recycled water ordinance or other regulation requiring the use of recycled water in its jurisdiction prior to January 1, 2001. (CA Legislative Info, n.d.)

❑ Urban Water Management Planning Act

The Urban Water Management Planning Act (UWMP Act) was proposed and adopted to ensure that water planning is conducted at the local level, as the State of California recognized that two water agencies in the same region could have very different impacts from a drought. The UWMP Act requires water agencies to develop Urban Water Management Plans (UWMPs) over a 20-year planning horizon, and further required UWMPs to be updated every five years. UWMPs are exempt from compliance with CEQA. (DWR, 2016, p. 1-2)

The UWMPs provide a framework for long term water planning and inform the public of a supplier's plans for long-term resource planning that ensures adequate water supplies for existing and future demands. This part of the California Water Code (CWC) requires urban water suppliers to report, describe, and evaluate:

- Water deliveries and uses;
- Water supply sources;
- Efficient water uses;
- Demand management measures; and
- Water shortage contingency planning. (DWR, 2016, p. 1-3)

The UWMP Act has been modified over the years in response to the State's water shortages, droughts, and other factors. A significant amendment was made in 2009, after the drought of 2007-2009 and as a result of the governor's call for a statewide 20 percent reduction in urban water use by the year 2020. This was the Water Conservation Act of 2009, also known as SB X7-7. This Act required agencies to establish water use targets for 2015 and 2020 that would result in statewide savings of 20 percent by 2020. Beginning in 2016, retail water suppliers are required to comply with the water conservation requirements in SB X7-7 in order to be eligible for State water grants or loans. Retail water agencies are required to set targets and track progress toward decreasing daily per capita urban water use in their service area, which will assist the State in meeting its 20 percent reduction goal by 2020. (DWR, 2016, p. 1-2)

- ❑ Government Code § 66473.7(b)(2) (Senate Bill 221)

Under Senate Bill (SB) 221, approval by a city or county of certain residential subdivisions requires an affirmative written verification of sufficient water supply. SB 221 is intended as a 'fail safe' mechanism to ensure that collaboration on finding the needed water supplies to serve a new large subdivision occurs before construction begins. SB 221 requires the legislative body of a city or county or the advisory agency, to the extent that it is authorized by local ordinance to approve, conditionally approve, or disapprove a tentative map, must include as a condition in any tentative map that includes a subdivision a requirement that a sufficient water supply shall be available. Proof of the availability of a sufficient water supply must be requested by the subdivision applicant or local agency, at the discretion of the local agency, and id based on written verification from the applicable public water system within 90 days of a request. SB 221 does not apply to any residential project proposed for a site that is within an urbanized area and has been previously developed for urban uses, or where the immediate contiguous properties surrounding the residential project site are, or previously have been, developed for urban uses, or housing projects that are exclusively for very low and low-income households. (DWR, 2003; CA Legislative Info, n.d.)

- ❑ California Senate Bill 610

The California Water Code (Water Code) §§ 10910 through 10915 were amended by the enactment of SB 610 in 2002. SB 610 requires an assessment of whether available water supplies are sufficient to serve the demand generated by a proposed project, as well as the reasonably foreseeable cumulative demand in the region over the next 20 years under average normal year, single dry year, and multiple dry year conditions. Under SB 610, water assessments must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Water Code 10912 [a]) subject to CEQA. (DWR, 2003; CA Legislative Info, n.d.) For the purposes of SB 610, "project" means any of the following:

(1) A proposed residential development of more than 500 dwelling units.
(2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
(3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
(4) A proposed hotel or motel, or both, having more than 500 rooms.

(5) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
(6) A mixed-use project that includes one or more of the projects specified in this subdivision.
(7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project. (DWR, 2003; CA Legislative Info, n.d.)

Because the Project proposes the demolition of existing commercial buildings and redevelopment of the Project Site with a 6,000 s.f. commercial building, which would include a 2,400 s.f. sit-down restaurant and 3,600 s.f. of retail or medical office uses, and a 2,000 s.f. drive-through restaurant, the Project does not meet the definition of "project" under SB 610 and therefore a water supply assessment is not required

❑ CA. Water Code § 10610 et seq. (Senate Bill 901)

Signed into law on October 16, 1995, Senate Bill (SB) 901 required every urban water supplier to identify as part of its urban water management plan, the existing and planned sources of water available to the supplier over a prescribed 5-year period. The code requires the water service purveyor to assess the projected water demand associated with a proposed project under environmental review. Later provisions of SB 901 required compliance in the event that the proposed Project involved the adoption of a specific plan, amendment to, or revision of the land use element of a general plan or specific plan that would result in a net increase in the state population density. Upon completion of the water assessment, cities and counties may agree or disagree with the conclusions of the water service purveyors, but cannot approve projects in the face of documented water shortfalls without first making certain findings. (CA Legislative Info, n.d.)

❑ Executive Order B-29-15

Executive Order (EO) B-29-15 ordered the State Water Resources Control Board (SWRCB) to impose restrictions to achieve a 25-percent reduction in potable urban water usage through February 28, 2016; directed the California Department of Water Resources (DWR) to lead a statewide initiative, in partnership with local agencies, to collectively replace 50 million square feet of lawns and ornamental turf with drought tolerant landscapes; and directed the California Energy Commission to implement a statewide appliance rebate program to provide monetary incentives for the replacement of inefficient household devices. (SWRCB, 2020)

❑ Executive Order B-37-16

Signed on May 9, 2016, EO B-37-16 established a new water use efficiency framework for California. The order bolstered the state's drought resilience and preparedness by establishing longer-term water conservation measures that include permanent monthly water use reporting, new urban water use targets, reducing system leaks and eliminating clearly wasteful practices, strengthening urban drought contingency plans, and improving agricultural water management and drought plans. (SWRCB, 2020)

❑ Executive Order B-40-17

Signed on April 7, 2017, EO B-40-17 ended the drought state of emergency in all California counties except Fresno, Kings, Tulare, and Tuolumne, where emergency drinking water projects will continue to help address

diminished groundwater supplies. It maintains water reporting requirements and prohibitions on wasteful practices. The order was built on actions taken in Executive Order B-37-16, which remains in effect. In a related action, state agencies, including the Department of Water Resources (DWR), released a plan to continue making water conservation a way of life. (SWRCB, 2020)

❑ Sustainable Groundwater Management Act (SGMA)

The Sustainable Groundwater Management Act (SGMA) established a new structure for managing California's groundwater resources at a local level by local agencies. SGMA required, by June 30, 2017, the formation of locally-controlled groundwater sustainability agencies (GSAs) in the State's high- and medium-priority groundwater basins and subbasins (basins). A GSA is responsible for developing and implementing a groundwater sustainability plan (GSP) to meet the sustainability goal of the basin to ensure that it is operated within its sustainable yield, without causing undesirable results. The GSP Emergency Regulations for evaluating GSPs, the implementation of GSPs, and coordination agreements were adopted by DWR and approved by the California Water Commission on May 18, 2016. (DWR, n.d.)

2. *Applicable Solid Waste Regulations*

❑ California Solid Waste Integrated Waste Management Act (AB 939, 1989)

The Integrated Waste Management Act (IWMA) established an integrated waste management hierarchy to guide the California Integrated Waste Management Board (CIWMB) and local agencies in implementation, in order of priority: (1) source reduction, (2) recycling and composting, and (3) environmentally safe transformation and land disposal (it should be noted that the CIWMB no longer exists, and its duties have been assumed by CalRecycle). As part of the IWMA, the CIWMB was given a purpose to mandate the reduction of disposed waste. (CalRecycle, n.d.) The IWMA also required:

- The establishment of a task force to coordinate the development of city Source Reduction and Recycling Elements (SRREs) and a countywide siting element. (CalRecycle, n.d.)

- Each city, by July 1, 1991, to prepare, adopt and submit a SRRE to the county which includes the following components: waste characterization; source reduction; recycling; composting; solid waste facility capacity; education and public information; funding; special waste (asbestos, sewage sludge, etc.); and household hazardous waste. (CalRecycle, n.d.)

- Each county, by January 1, 1991, to prepare a SRRE for its unincorporated area, with the same components described above, and a countywide siting element, specifying areas for transformation or disposal sites to provide capacity for solid waste generated in the jurisdiction which cannot be reduced or recycled for a 15-year period.

- Each county to prepare, adopt, and submit to the Board an Integrated Waste Management Plan (IWMP), which includes all of the elements described above. (CalRecycle, n.d.)

- Each city or county plan to include an implementation schedule which shows: diversion of 25 percent of all solid waste from landfill or transformation facilities by January 1, 1995 through source reduction, recycling, and composting activities; and, diversion of 50 percent of all solid waste by January 1, 2000 through source reduction, recycling, and composting activities. (CalRecycle, n.d.)

- The CIWMB to review the implementation of each SRRE at least once every two years. (CalRecycle, n.d.)

- The IWMA required the CIWMB, in conjunction with an inspection conducted by a Lead Enforcement Agency (LEA), to conduct at least one inspection per year of each solid waste facility in the state. (CalRecycle, n.d.)

Additionally, the IWMA established a comprehensive statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities. (CalRecycle, n.d.)

❑ Waste Reuse and Recycling Act (AB 1327)

The Waste Reuse and Recycling Act (WRRA) required the CIWMB to approve a model ordinance for adoption by any local government for the transfer, receipt, storage, and loading of recyclable materials in development projects by March 1, 1993. The WRRA also required local agencies to adopt a local ordinance by September 1, 1993 or allow the model ordinance to take effect. The WRRA requires all development projects that are commercial, industrial, institutional, or marina in nature and where solid waste is collected and loaded, to provide an adequate area for collecting and loading recyclable materials over the lifetime of the project. The area is required to be provided before building permits are issued. (CalRecycle, n.d.)

❑ Mandatory Commercial Recycling Program (AB 341)

Assembly Bill (AB) 341 (Chapter 476, Statutes of 2011 [Chesbro, AB 341]) directed CalRecycle to develop and adopt regulations for mandatory commercial recycling. CalRecycle initiated formal rulemaking with a 45-day comment period beginning Oct. 28, 2011. The final regulation was approved by the Office of Administrative Law on May 7, 2012. AB-341 was designed to help meet California's recycling goal of 75% by the year 2020. AB 341 requires all commercial businesses and public entities that generate 4 cubic yards or more of waste per week to have a recycling program in place. In addition, multi-family apartments with five or more units are also required to form a recycling program. (CalRecycle, n.d.)

❑ California Green Building Standards Code (CAL Green; Part 11 of Title 24, California Code of Regulations)

California Code of Regulations, Title 24, Part 11 is referred to as the California Green Building Standards Code (CALGreen Code). The most recent version of CALGreen became effective on January 1, 2023. CALGreen is applicable to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout the State of California. The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water

efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality." The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). Section 5.408.3 of the CALGreen Code requires that 100 percent of trees, stumps, rocks, and associated vegetation and soils resulting from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on-site until the storage site is developed. Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code. (CBSC, 2022)

C. Local Plans, Policies, and Regulations

1. Brea 2020 Urban Water Management Plan

The Brea 2020 Urban Water Management Plan (UWMP) is a comprehensive document that presents an evaluation of the City's water supply reliability over a long term (20-25 year) horizon. The 2020 UWMP provides an assessment of the present and future water supply sources and demands within the City's service area. It presents an update to the 2015 UWMP on the City's water resource needs, water use efficiency programs, water reliability assessment and strategies to mitigate water shortage conditions. It also presents a new 2020 Water Shortage Contingency Plan (WSCP) designed to prepare for and respond to water shortages. (Arcadis, 2021)

2. Brea Water Master Plan

The City of Brea 2021 Water Master Plan was prepared as an update to the previous 2009 Water Master Plan and presents the City's plan for domestic water infrastructure. The 2009 Water Master Plan was limited to the existing City water distribution system, its Sphere of Influence (SOI), and existing water demands. The 2021 Water Master Plan was updated to address planned developments and associated demands defined by zoning, the General Plan, and Traffic Analysis Zone (TAZ) areas. The 2021 Water Master Plan includes a supply analysis, demand analysis, and an updated the City's hydraulic model. The Master Plan includes a list of potential capital improvement program projects, associated cost benefit analysis, and prioritizes the implementation of Water Master Plan projects. (Brea, 2021b)

3. Brea Sewer Master Plan

The City of Brea Sewer Master Plan was prepared as an update to the previous 2005 Sewer Master Plan and presents the City's plan for wastewater collection, conveyance, and treatment infrastructure. The intent of the 2021 Sewer Master Plan was to update the City's sewer model, hydraulic analysis, condition assessment, and include capital improvement project recommendations based on the latest available information. Updated future planning data was utilized to estimate future sewer loads and size future sewer facilities. Existing and future capacity deficiencies were identified and improvement projects are recommended in the Sewer Master Plan. (Brea, 2021c)

4. City of Brea Municipal Code

Title 13, *Utilities*, of the City of Brea Municipal Code outlines the goals, policies, and programs the City will implement regarding utilities including sewers, water, storm water, and waste disposal. (Brea, 2022a)

4.14.3 Basis for Determining Significance

According to Section I of Appendix G to the CEQA Guidelines, the proposed Project would result in a significant impact associated with utilities and service systems if the Project or any Project-related component would:

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

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

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

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

e. *Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.*

4.14.4 Impact Analysis

***Threshold a*: Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

The Project would redevelop the 0.95-acre southern portion of the Project Site with two commercial buildings, a parking area, and landscaping. The installation of the infrastructure improvements proposed by as part of the Project would result in physical environmental impacts; however, these impacts have already been considered in the analyses of construction-related effects presented throughout this EIR. In instances where the Project's construction phase would result in specific significant impacts, mitigation measures are provided in the applicable subsection of this EIR to reduce the Project's effects to less-than-significant levels (or, if it is not possible to reduce the Project's impacts to less-than-significant levels, mitigation is provided to minimize impacts to the maximum level feasible). The construction of infrastructure necessary to serve the proposed Project would not result in any significant physical effects on the environment that are not already identified and disclosed elsewhere in this this EIR. There are no components of the Project's infrastructure improvements

that would result in impacts not already disclosed in this EIR and, accordingly, additional mitigation measures beyond those identified throughout this EIR would not be required. A summary discussion of each component of the Project's infrastructure system is provided below.

A. Water and Water Treatment Facilities

Water demand features associated with the proposed Project would consist of interior plumbing devices and outdoor landscape irrigation. Water service would be provided to the Project by the City of Brea Water Services Division. The Project would connect to existing water lines beneath South Orange Avenue and South Flower Avenue. A proposed 2-inch domestic water service point of connection would be connected to the 12-inch water line beneath South Orange Avenue and would connect to the proposed 6,000 s.f. restaurant and retail/medical building via a 2-inch water line. A proposed 2-inch domestic water service point of connection would be connected to the 8-inch water line beneath South Flower Avenue and would connect to the proposed 2,000 s.f. drive-thru restaurant via a 2-inch water line.

The Project would not require the relocation or upsizing of any existing water lines off-site. The installation of water conveyance lines as part of the Project's construction process has the potential to cause environmental effects associated with short-term air pollutant emissions, noise, and traffic movement disruptions. All water utility installation work that occurs within a public street right of way must adhere to the construction control practices that reduce impacts that are specified in the State of California Department of Transportation Construction Manual, dated February 2022, published by Caltrans (Caltrans, 2022b). Environmental impacts associated with the construction of the Project, including the installation of its proposed water lines are evaluated throughout this EIR. Where significant impacts are identified, feasible and enforceable mitigation measures are imposed on the Project to reduce impacts to the maximum practical effect. There are no unique impacts associated with the installation of water infrastructure to serve the Project, and impacts would be less than significant.

While the Project may result in an incremental increase in demand for water treatment capacity, the Project's water demands would not result in or require new or expanded water treatment facilities beyond those facilities already planned as part of the Brea 2020 UWMP. Impacts unique to the installation of water infrastructure would be less than significant.

B. Wastewater and Wastewater Treatment Facilities

Sewer demand features associated with the proposed Project include interior plumbing devices in the two proposed commercial buildings. The Project would connect to an existing sewer line that runs from the alley north of the Project Site to Imperial Highway. The Project would not require the relocation or upsizing of any existing sewer lines off-site. The installation of wastewater conveyance lines as part of the Project's construction process has the potential to cause environmental effects associated with short-term air pollutant emissions, noise, and traffic movement disruptions. All wastewater utility installation work that occurs within a public street right of way must adhere to the construction control practices that reduce impacts that are specified in the State of California Department of Transportation Construction Manual, dated February 2022, published by Caltrans (Caltrans, 2022b). Environmental impacts associated with the construction of the Project, including the installation of its proposed sewer lines are evaluated throughout this EIR. Where

significant impacts are identified, feasible and enforceable mitigation measures are imposed on the Project to reduce impacts to the maximum practical effect. There are no unique impacts associated with the installation of wastewater infrastructure to serve the Project, and impacts would be less than significant.

The Project's wastewater would be conveyed to treatment plants located in the cities of Fountain Valley (Plant No. 1) and Huntington Beach (Plant No. 2) which are operated by Orange County Sanitation. Plant No. 1 has a primary treatment capacity of 204 MGD and Plant No. 2 has a primary treatment capacity of 168 million of gallons per day (MGD) (OCSD, 2011). The 2020-2021 average daily flow of wastewater received for Plant No. 1 was 118 MGD and for Plant No. 2 was 64 MGD, for a total of 182 MGD (OCSD, 2021). The excess capacity is approximately 190 MGD, sufficient to treat the Project's wastewater which would only comprise a small fraction of the available capacity.

C. Storm Water Drainage Facilities

With implementation of the proposed Project, the Project Site's existing drainage patterns would be maintained. Under existing conditions, storm water runoff from the building and parking lot areas drains via surface flow southerly from the northeast and southeast corners of the Project Site to an existing sidewalk parkway drain in the southwest corner of the Project Site via a valley gutter that conveys runoff to a curb and gutter along South Orange Avenue and then to a curb inlet catch basin on South Flower Avenue, where it enters the public storm drain system. Storm water from the western portion of the Project Site would be conveyed to an underground detention vault and a proprietary underground dry well system. Off-site run-on flows from the north would be conveyed south and would surface flow south on-site to the existing valley gutter which conveys the on-site flows to the parkway drain and public system mentioned above. The storm drain system conveys flows southwest where it will discharge into Coyote Creek and drain to the San Gabriel River Estuary before discharging into the Pacific Ocean. (Kimley Horn, 2022a, p. 3)

The installation of storm water collection facilities and conveyance lines as part of the Project's construction process has the potential to cause environmental effects associated with short-term air pollutant emissions, noise, and traffic movement disruptions. All storm water infrastructure installation work that occurs within a public street right of way must adhere to the construction control practices that reduce impacts that are specified in the State of California Department of Transportation Construction Manual, dated February 2022, published by Caltrans (Caltrans, 2022b). Environmental impacts associated with the construction of the Project, including the installation of its proposed storm water drainage system are evaluated throughout this EIR. Where significant impacts are identified, feasible and enforceable mitigation measures are imposed on the Project to reduce impacts to the maximum practical effect. There are no unique impacts associated with the installation of storm water drainage infrastructure to serve the Project, and impacts would be less than significant.

D. Dry Utilities (Electrical Power, Natural Gas, and Telecommunications)

Under existing conditions, electrical lines are located beneath South Flower Avenue, gas lines are located beneath South Flower Avenue and Imperial Highway, and telephone lines are located beneath Imperial Highway. Electric and telephone lines also run from the alley located to the north of the Project Site, through the north central portion of the Project Site. The installation of dry utilities as part of the Project's construction process has the potential to cause environmental effects associated with short-term air pollutant emissions,

noise, and traffic movement disruptions. All dry utility installation work that occurs within a public street right-of-way must adhere to the construction control practices that reduce impacts that are specified in the State of California Department of Transportation Construction Manual, dated February 2022, published by Caltrans (Caltrans, 2022b). Environmental impacts associated with the construction of the Project, including the installation of its proposed dry utility systems are evaluated throughout this EIR. Where significant impacts are identified, feasible and enforceable mitigation measures are imposed on the Project to reduce impacts to the maximum practical effect. There are no unique impacts associated with the installation of dry utilities to serve the Project, and impacts would be less than significant.

***Threshold b*: Would the Project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?**

Water service would be provided to the Project by the City of Brea Water Services Division through a combination of imported water and local groundwater. The main source of water for the City is imported groundwater from the Main San Gabriel Groundwater Basin provided by the California Domestic Water Company (CDWC). Additional sources of water include water from the Colorado River and the State Water Project (SWP), provided by the Metropolitan Water District of Southern California (MET) and delivered through Municipal Water District of Orange County (MWDOC), and local groundwater pumped from the La Habra Groundwater Basin. (Arcadis, 2021, p. 6-1)

Water use projections for 2025-2045 are provided in the Brea 2020 UWMP. According to the projections, total water usage in 2025 is projected to be 9,543, and would increase to 9,745 by 2045 (Arcadis, 2021, Table 4-3). This total water usage includes residential, commercial, industrial, institutional/governmental, and landscape uses and includes any potential water losses. The City is capable of meeting all customers' water demands from 2025 through 2045, even with a drought lasting five consecutive years. The City would be able to meet this demand due to significant reserves held by MET, local groundwater supplies, and conservation. Should the need arise, the City can also purchase mor MET water through MWDOC. (Arcadis, 2021, p. 7-8)

Although the Project is proposing a General Plan Amendment to change the land use designation for the Project Site from "Office/Financial" to "Mixed Use III" and a zone change to change the zoning classification of the Project Site from "Administrative and Professional Office (C-P)" with a "Precise Development (P-D)" overlay to "Mixed Use III," the Project Site is already fully developed and water usage from Project Site land uses have been accounted for in the UWMP. Redevelopment of the Project Site would not cause significantly more water usage. The City has adequate water supplies to meet its current and future expected water service demands until at least 2045, and therefore, impacts would be less than significant.

***Threshold c*: 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?**

Wastewater generated by the Project would be treated at Orange County Sanitation's Fountain Valley (Plant No. 1) and Huntington Beach (Plant No. 2). Under existing conditions, the Plant No. 1 and Plant No. 2 have a combined excess capacity of approximately 190 MGD. According to a sewer capacity study for the Project

(*Technical Appendix J* to this EIR), the existing site contributes a peak wet weather flow of 0.00522 MGD and the proposed Project would contribute 0.02405 MGD. For peak dry weather flow, the existing site contributes 0.00417 MGD and the proposed Project would contribute 0.01924 MGD. Therefore, the proposed project would increase peak dry weather flow by 0.01507 MGD and peak wet weather flow by 0.01883 MGD. Of the 190 MGD excess capacity of Plant No. 1 and Plant No. 2, the increased sewer flow from the proposed Project represents 0.008 percent of the excess capacity during peak dry weather flow and 0.01 percent of the excess plant capacity during peak wet weather flow. Because there is adequate capacity at existing treatment facilities to serve Project demands, impacts would be less than significant.

Threshold d: ***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?***

The Project would be required to comply with mandatory waste reduction requirements of the California Integrated Waste Management Act (AB 939), the California Solid Waste Reuse and Recycling Act of 1991 (Cal Pub Res. Code Section 42911), and the City of Brea Municipal Code. Notwithstanding, construction and operation of the Project would result in the generation of solid waste requiring disposal at a landfill.

A. Construction-Related Landfill Disposal

During construction of the Project, demolition material, estimated to be 1,080 tons, would be generated from removal of the four commercial/office building on the Project Site. Waste also would be generated by the construction process on the Project Site, primarily comprising discarded materials and packaging. Based on the proposed building sizes of 6,000 s.f. (restaurant and retail/medical building) and 2,000 s.f. (drive-thru restaurant building) (8,000 s.f. of total building space), and using a construction waste generation factor of 4.34 pounds per square foot (EPA, 2009, p. 10), approximately 17.36 tons of waste would be generated over the course of Project construction ([8,000 sq. ft. × 4.34 lbs/sq. ft] ÷ 2,000 lbs/ton = 17.36 tons). The total construction-related waste, including demolition, is estimated to be 1,097.36 tons. AB 939 requires that a minimum of 50% of all solid waste be diverted from landfills (by recycling, reusing, and other waste reduction strategies) consistent with the State's solid waste reduction goals; therefore, the Project is estimated to generate up to 548.68 tons of construction waste requiring disposal at a landfill.

The Project's construction would occur over a period of approximately seven months (approximately 210 days), which corresponds to approximately 2.6 tons of construction waste being generated per day of construction activity. The Olinda-Alpha Landfill has a disposal rate of approximately 7,000 TPD, which is 87.5 percent of its maximum capacity of 8,000 TPD. The Frank R. Bowerman Landfill has a disposal rate of approximately 8,500 TPD, which is 73.9 percent of its maximum capacity of 11,500 TPD. The Prima Deshecha Landfill has a maximum disposal rate of 4,000 TPD. The Project's estimated construction-related generated waste represents approximately 0.03% of the Olinda-Alpha Landfill's maximum daily capacity, 0.02% of the Frank R. Bowerman Landfill maximum daily capacity, and 0.07% of the Prima Landfill capacity. Thus, the small volume of solid waste generated during Project construction (2.6 tons per day) would neither exceed State or local disposal standards nor exceed the local infrastructure capacity to handle the waste disposal; therefore, impacts to landfill capacity associated with near-term Project construction activities would be less than significant.

B. Operational-Related Landfill Disposal

Based on a daily waste generation factor of 0.005 pounds of waste per square feet of restaurant per day, the long-term operation of both the 2,000 s.f. restaurant and the 2,400 s.f. restaurant (total 4,400 s.f.) would generate approximately 0.11 tons of solid waste per day (0.005 x 4,400 s.f = 22 pounds, or 0.011 tons, of waste per day). Based on a daily waste generation factor of 0.046 pounds of waste per square feet of commercial retail per day, the long-term operation of the 3,600 s.f. retail building would generate approximately 0.08 tons of solid waste per day (0.046 x 3,600 s.f. = 165.5 pounds, or 0.08 tons, of waste per day). (CalRecycle, n.d.) Total long-term operational waste generated by the Project is estimated to be approximately 0.09 tons of waste per day. The projected estimated operation-related generated waste represents approximately 0.01 percent of the Olinda-Alpha Landfill's maximum daily capacity; 0.008 percent of the Frank R. Bowerman Landfill's maximum daily capacity; and 0.02 percent of the Prima Deshecha Landfill's maximum daily capacity. Thus, the small volume of solid waste expected to be generated during Project operation (0.09 tons per day) would neither exceed State or local disposal standards nor exceed the local infrastructure capacity to handle the waste disposal; therefore, impacts to landfill capacity associated with long-term Project operational activities would be less than significant.

Threshold e: ***Would the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?***

The California Integrated Waste Management Act (AB 939), signed into law in 1989, established an integrated waste management system that focused on source reduction, recycling, composting, and land disposal of waste. In addition, the bill established a 50% waste reduction requirement for cities and counties by the year 2000, along with a process to ensure environmentally safe disposal of waste that could not be diverted.

In order to assist the City of Brea in achieving the mandated goals of the Integrated Waste Management Act, and pursuant to the City of Brea Municipal Code Chapter 8.28, the Project's building occupants would be required to work with future refuse haulers to develop and implement feasible waste reduction programs, including source reduction, recycling, and composting. Additionally, in accordance with the California Solid Waste Reuse and Recycling Act of 1991 (Cal Pub Res. Code Section 42911), the Project is required to provide adequate areas for collecting and loading recyclable materials where solid waste is collected. The collection areas are required to be shown on construction drawings and be in place before occupancy permits are issued. (CA Legislative Info, n.d.) Further, in compliance with AB 341 (Mandatory Commercial Recycling Program), the future occupants of the proposed Project would be required to arrange for recycling services, if the occupant generates four (4) or more cubic yards of solid waste per week (CA Legislative Info, n.d.). The implementation of these mandatory requirements would reduce the amount of solid waste generated by the Project and diverted to landfills, which in turn will aid in the extension of the life of affected disposal sites. The Project would be required to comply with all applicable solid waste statutes and regulations; as such, impacts related to solid waste statutes and regulations would be less than significant.

4.14.5 Cumulative Impact Analysis

The Project would require water, wastewater, and stormwater drainage services and infrastructure, as well as solid waste disposal during construction and operation of the Project. Development of public utility

infrastructure is part of an extensive planning process involving utility providers and jurisdictions with ministerial and discretionary review authority. The coordination process associated with the preparation of infrastructure plans is intended to ensure that adequate public utility services and resources are available to serve both individual development projects and cumulative growth in the region. Each individual development project is subject to review for utility capacity to avoid unanticipated interruptions in service or inadequate supplies. Because the comprehensive utility and service planning and coordination activities described above would ensure that new development projects do not disrupt or degrade the provision of utility services, cumulatively considerable impacts to utilities and service systems would not occur.

4.14.6 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The physical environmental effects associated with installing the Project's water, wastewater, storm water drainage, and dry utility infrastructure is evaluated throughout this EIR and no adverse impacts specific to the provision utilities services have been identified.

Threshold b: Less-than-Significant Impact. The City of Brea Water Services Division is expected to have sufficient water supplies to service the Project. The Project would not exceed the City of Brea Water Service Division's available supply of water during normal years, single-dry years, or multiple-dry years.

Threshold c: Less-than-Significant Impact. Orange County Sanitation would provide wastewater treatment services to the Project site via the Fountain Valley (Plant No. 1) and Huntington Beach (Plant No. 2) treatment plants, which have adequate capacity to service the Project and no new or expanded facilities would be needed.

Threshold d: Less-than-Significant Impact. There is adequate capacity available at the Olinda-Alpha landfill, the Frank R. Bowerman Landfill, and the Prima Deshecha Landfill to accept the Project's solid waste during both construction and long-term operation. The Project would not generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure to handle the waste.

Threshold e: Less-than-Significant Impact. The Project would comply with all applicable federal, State, and local statutes and regulations related to the management and reduction of solid waste and pertaining to waste disposal, reduction, and recycling.

4.14.7 Mitigation

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

5.0 Other CEQA Considerations

5.1 Significant Environmental Effects Which Cannot be Avoided if the Proposed Project is Implemented

The CEQA Guidelines require that an EIR disclose the significant environmental effects of a proposed project that cannot be reduced to a level of insignificance if the project is implemented and, where impacts cannot be alleviated without imposing an alternative design, the reasons why the project is being proposed, notwithstanding its effect, should be described (CEQA Guidelines Section 15126(b) & Section 15126.2(c)). As described in detail in Section 4.0 of this EIR, after the consideration of Project design features, compliance with applicable federal, State and local regulations, and the application of the feasible mitigation measures identified in this EIR, the Project would not result in any significant and unavoidable impacts.

5.2 Significant Irreversible Environmental Impacts Which Would be Involved in the Proposed Action Should it be Implemented

The CEQA Guidelines require EIRs to address any significant irreversible environmental changes that would be involved in the proposed action should it be implemented (CEQA Guidelines Section 15126.2(c)). An environmental change would fall into this category if: a) the project would involve a large commitment of non-renewable resources; b) the primary and secondary impacts of the project would generally commit future generations to similar uses; c) the project involves uses in which irreversible damage could result from any potential environmental accidents; or d) the proposed consumption of resources are not justified (e.g., the project results in the wasteful use of energy).

Determining whether the Project may result in significant irreversible environmental changes requires a determination of whether key non-renewable resources would be degraded or destroyed in such a way that there would be little possibility of restoring them. Natural resources, in the form of construction materials and energy resources, would be used in the construction of the proposed Project. The consumption of these natural resources would represent an irreversible change to the environment. However, development of the Project Site would have no measurable adverse effect on the availability of such resources, including resources that may be non-renewable (e.g., construction aggregates, fossil fuels). Additionally, the Project is required by law to comply with the California Green Building Standards Code (CALGreen) in effect at the time of building permit issuance, which will minimize the Project's demand for energy, including energy produced from non-renewable sources. A more detailed discussion of Project energy consumption is provided in EIR Subsection 4.5, *Energy*.

Implementation of the Project would commit the Project Site to a four-building commercial/office center, including two existing buildings and the two proposed buildings. The land use proposed for the Project Site is compatible with the existing Mixed Use land uses that are located to the west and also compatible with the use of Imperial Highway (which abuts the Project Site on the south) as a City-designated truck route. Accordingly, the Project and its environmental effects would not compel or commit surrounding properties to land uses other

than those that are existing today or those that are planned on those properties by the City's General Plan. For this reason, the Project would not result in a significant, irreversible change to nearby, off-site properties.

EIR Subsection 4.8, *Hazards and Hazardous Materials*, provides an analysis of the potential for hazardous materials to be transported to/from the Project Site and/or used on the Project Site during the Project's construction and operation. As concluded in Subsection 4.8, mandatory compliance with federal, State, and local regulations related to hazardous materials handling, storage, and use by all Project construction contractors (near term) and occupants (long-term) would ensure that any hazardous materials used on-site would be safely and appropriately handled to preclude any irreversible damage to the environment that could result if hazardous materials were released from the Project Site.

As discussed in detail under EIR Subsection 4.5, *Energy*, the Project would not result in a wasteful, inefficient, or unnecessary consumption of energy. Accordingly, the Project would not result in a significant, irreversible change to the environment related to energy use.

Based on the above, Project construction and operation would require the commitment of limited, slowly renewable and non-renewable resources. However, this commitment of resources would not be substantial and would be consistent with regional and local growth forecasts and development goals for the area. The loss of such resources would not be highly accelerated when compared to existing conditions, and such resources would not be used in an inefficient or wasteful manner. Project construction and operation would adhere to the sustainability requirements of Title 24, Green Building Code, and CALGreen. Therefore, the Project would not result in the commitment of large quantities of natural resources that would result in significant irreversible environmental changes.

5.3 GROWTH-INDUCING IMPACTS OF THE PROPOSED PROJECT

CEQA requires a discussion of the ways in which the proposed Project could be growth inducing. The CEQA Guidelines identify a project as growth inducing if it would foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment (CEQA Guidelines Section 15126.2(d)). New employees and new residential populations represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area.

A project could indirectly induce growth at the local level by increasing the demand for additional goods and services associated with an increase in population or employment and thus reducing or removing the barriers to growth. This typically occurs in suburban or rural environs where population growth results in increased demand for service and commodity markets responding to the new population of residents or employees.

According to regional population projections included in SCAG's *Connect SoCal*, the City of Brea's population is projected to grow by 4,100 residents between 2016 and 2045 (approximately 91.5 percent growth) (SCAG, 2020b). Over this same time period, employment in the City is expected to add 4,000 new jobs (approximately 92.6 percent job growth) (ibid). Economic growth would likely take place as a result of the Project's operation as commercial/office facilities. The Project's employees (short-term construction and

long-term operational) would purchase goods and services in the region, but any secondary increase in employment associated with meeting these goods and services demands is expected to be accommodated by existing goods and service providers and, based on the amount of existing and planned future commercial and retail services available in areas near the Project Site, would be highly unlikely to result in any unanticipated, adverse physical impacts to the environment. In addition, the Project would create jobs, a majority of which would likely be filled by residents of the housing units either already built or planned for development within the City of Brea and nearby incorporated and unincorporated areas. Accordingly, because it is anticipated that most of the Project's future employees would already be living in the City of Brea or the immediate surrounding area, the Project's introduction of new employment opportunities on the Project Site would not induce substantial growth in the area.

Under CEQA, growth inducement is not considered necessarily detrimental, beneficial, or of little significance to the environment. Typically, growth-inducing potential of a project would be considered significant if it fosters growth or a concentration of population in excess of what is assumed in pertinent master plans, land use plans, or in projections made by regional planning agencies such as SCAG. Significant growth impacts also could occur if a project provides infrastructure or service capacity to accommodate growth beyond the levels currently permitted by local or regional plans and policies. In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the environment in some other way. The area surrounding the Project Site consist of commercial, public facility, and residential uses. Redevelopment of the Project Site is not expected to place short-term development pressure on abutting properties because these areas are already built-out.

Based on the foregoing analysis, the Project would not result in substantial, adverse growth-inducing impacts.

5.4 EFFECTS FOUND NOT TO BE SIGNIFICANT DURING THE EIR PREPARATION PROCESS

CEQA Guidelines Section 15128 requires that an EIR *"…contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR."* During the preparation of this EIR, the Project was determined to clearly have no potential to result in significant impacts under six environmental issue areas: agriculture and forest resources, mineral resources, population and housing, public services, recreation, and wildfire. Therefore, these issue areas were not required to be analyzed in detail in EIR Section 4.0, *Environmental Analysis*. A brief analysis of the Project's impacts to agriculture and forest resources, mineral resources, population and housing, public services, recreation, and wildfire is presented below and on the following pages.

5.4.1 Agriculture and Forestry Resources

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

According to the Farmland Mapping and Monitoring Program mapping information available from the California Department of Conservation, the Project Site does not contain any soils mapped as "Prime Farmland", "Unique Farmland," or "Farmland of Statewide Importance" (CDC, 2018). As such, implementation of the Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use. No impact would occur.

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

The Project Site is not subject to a land conservation (Williamson Act) contract and, thus, would not conflict with a land conservation contract (Brea, 2003b, Appendix A). In addition, the Project Site is zoned "Administrative and Professional Office (C-P)" with a "Precise Development (P-D)" overlay under existing conditions, which is not a zoning category for agricultural use. Therefore, implementation of the Project has no potential to conflict with existing zoning for an agricultural use. No impact would occur.

Threshold c:	***Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined by Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?***

The Project Site is not zoned as forest land, timberland, or Timberland Production, nor is it surrounded by forest land, timberland, or Timberland Production land. Therefore, implementation of the Project has no potential to conflict with or cause the rezoning of any areas currently zoned as forest, timberland, or Timberland Production and would not result in the rezoning of any such lands. As such, no impact would occur.

Threshold d:	***Would the Project result in the loss of forest land or conversion of forest land to non-forest use?***

The Project Site does not contain a forest and is not designated as forest land. Thus, implementation of the Project would not result in the loss of forest land or the conversion of forest land to non-forest use. As such, no impact would occur.

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

"Farmland" is defined in Section II(a) of Appendix G of the CEQA Guidelines to mean "Prime Farmland," "Unique Farmland" or "Farmland of Statewide Importance." As noted above in Response 3.2(a), the Project Site does not contain any soils mapped by the Department of Conservation as "Farmland." Additionally, as described above in preceding responses under the "Agricultural Resources" topic, the Project Site and surrounding areas do not contain forest lands or areas designated for forest land uses. Thus, implementation of the Project would not result in the conversion of Farmland to non-agricultural use or the conversion of forest land to non-forest use. No impact would occur.

5.4.2 Mineral Resources

Threshold a:	***Would the Project result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?***
Threshold b:	***Would the Project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?***

The Project Site is located within Mineral Resource Zone 1 (MRZ-1), which indicates areas where adequate information indicates that no significant construction aggregate deposits are present, or where it is judged that little likelihood exists for their presence (CDC, 1981). Accordingly, the Project Site is not located within an area known to be underlain by regionally-important mineral resources and, implementation of the Project would not result in the loss of availability of a known mineral resource that would be of value to the region or to the residents of the State of California. Therefore, no impact would occur.

5.4.3 Population and Housing

Threshold a:	***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)?***

The Project Applicant would redevelop the Project Site with employment land uses. The Project Site is located in an area of Brea that is already developed with employment land uses, and on a site that is already developed with employment land uses. Accordingly, development of the Project would sustain the ongoing trend of the development of employment land uses in the City of Brea and would generate job growth that is consistent with what was already anticipated by the City in their General Plan and evaluated in the General Plan EIR. Additionally, the Project Site is located in an area of Brea that is served by existing roadways and public utility infrastructure and the Project would not require the extension or expansion of any infrastructure beyond what is needed to service the Project. Accordingly, implementation of the Project would not induce direct or indirect substantial unplanned growth in the area and impacts would be less than significant.

Threshold b: ***Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?***

The Project Site is developed with commercial/office uses and does not contain any residential uses. The Project would not result in the displacement of substantial numbers of existing people or housing and would not necessitate the construction of replacement housing elsewhere. Accordingly, no impact would occur.

5.4.4 Public Services

Threshold a: ***Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:***

a) Fire protection?

Under existing conditions, the Project Site receive fire protection services from the Brea Fire Department via Station via Station 2. Station 2 is located at 200 N. Brea Boulevard, Brea, CA 92821. Station 2 is located approximately 0.4 roadway mile from the Project Site. Brea Fire Department has an average response time from 7 minutes, 29 seconds from dispatch to arrival (Brea Fire Department, 2020). Implementation of the Project would not substantially impact the Station's response time.

The construction and operation of the Project would not increase the demand for fire protection because the Project Site is already developed and receives fire protection services. Service demand in and of itself is not an environmental impact under CEQA unless such demand causes a physical change to the environment. The redevelopment of the Project Site is not anticipated to result in an increase in demand for fire protection services high enough to trigger the need to physically construct new fire protection facilities because Station 2 already exists near the Site. Additionally, the Project would incorporate fire prevention and fire suppression design features to minimize the potential demand placed on the Brea Fire Department. The Project would meet all fire protection codes, rules, and regulations and would provide paved emergency access to the Project Site to support the Brea Fire Department in the event fire suppression activities are needed on-site. Lastly, the proposed buildings would feature a fire alarm system and ceiling-mounted sprinklers.

Based on the Project Site's proximity to an existing fire station, the incremental increase in the demand for Brea Fire Department services would not result in or require new or expanded fire protection facilities in order to maintain acceptable service ratios, response times, or other performance objectives.

Although the Project would not result in the need for new or expanded fire protection facilities, as a standard condition of approval, the Project Applicant/Developer or Project Site owner would be required to pay impact fees for fire protection services in accordance with Section 3.32 of the Brea Municipal Code. The City will collect Development Impact Fees (DIF) for the Project based on building square footage. The Project's payment of DIF fees, as well as increased property tax revenues that would result from development of the

Project, would be used by the City to help pay for fire protection services and other public services (Brea, 2022a, Section 3.32).

Based on the foregoing, the Project would receive adequate fire protection service and would not result in the need for new or physically altered fire protection facilities. Impacts to fire protection facilities would be less than significant.

Threshold b: ***Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:***

b) Police protection?

The Project Site receives police protection services from the Brea Police Department. The construction and operation of the Project would not increase the demand for police protection services because the Project Site is already developed and receives police protection services. Service demand in and of itself is not an environmental impact under CEQA unless such demand causes a physical change to the environment, and there is no aspect of the Project's construction, design, or operation that would cause the need to construct new police protection facilities. For these reasons, the Project is not anticipated to generate crime nor would the Project precipitate crime which would necessitate the construction of new or physically altered police facilities. Additionally, and pursuant to City of Brea Municipal Code Section 3.32, the Project would be subject to payment of DIF fees, which the City uses in part to fund police protection services. Furthermore, property tax revenues generated from development of the Site would provide funding to offset potential increases in the demand for police services at Project build-out. The City of Brea uses DIF fees and property tax revenues to help pay for police protection needs and other public services. (Brea, 2022a, Section 3.32)

Because Project implementation would not result in or require new or expanded police protection facilities and because the Project is required to contribute appropriate DIF fees to offset the Project's increased demand for police protection services, the Project's impacts to police protection services would be less than significant.

Threshold c: ***Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:***

c) Schools?

The Project does not include residential land uses and would not directly introduce new school-age children within the Brea Olinda Unified School District (BOUSD) boundaries. Because the Project would not directly generate students and is not expected to indirectly draw students to the area, the Project would not cause or contribute to a need to construct new or physically altered public school facilities. Although the Project would

not create a direct demand for public school services, the Project Applicant/Developer or Project Site owner would be required to contribute development impact fees to the BOUSD in compliance with the Leroy F. Greene School Facilities Act of 1998, which allows school districts to collect fees from new developments to offset the costs associated with increasing school capacity needs. Mandatory payment of school fees would be required prior to the issuance of building permits. Impacts to BOUSD schools would be less than significant.

Threshold d: ***Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:***

d) Parks?

The Project does not propose to construct any new on- or off-site recreation facilities. Additionally, the Project would not expand any existing off-site recreational facilities. The Project does not propose any type of residential use or other land use that may generate a population that would increase the use of existing neighborhood and regional parks or other recreational facilities. No impact would occur.

Threshold e: ***Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:***

e) Other public facilities?

The Project does not include any residential land uses and, therefore, is not expected to result in a demand for other public facilities/services, including libraries, community recreation centers, post offices, public health facilities, and/or animal shelters. As such, implementation of the Project would not adversely affect other public facilities or require the construction of new or modified public facilities. No impact would occur.

5.4.5 Recreation

Threshold a: ***Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?***

The Project would entail the development of the subject property with commercial/office land uses. The Project does not propose any type of residential use or other land use that may generate a population that would increase the use of existing neighborhood and regional parks or other recreational facilities. No impact would occur.

Threshold b:	***Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?***

The Project does not propose to construct any new on- or off-site recreation facilities. Additionally, the Project would not expand any existing off-site recreational facilities. Therefore, environmental effects related to the construction or expansion of recreational facilities would not occur.

5.4.6 WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:

Threshold a:	***Would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?***
Threshold b:	***Due to slope, prevailing winds, and other factors, would the Project exacerbate wildfire risks, and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?***
Threshold c:	***Would the Project require installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?***
Threshold d:	***Would the Project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?***

The Project Site is not classified as very high fire hazard severity zone (CalFire, n.d.); therefore, implementation of the Project would not exacerbate any existing wildfire hazard risks or expose people or the environment to adverse environmental effects related to wildfires.

6.0 ALTERNATIVES

An Environmental Impact Report (EIR) must identify ways to mitigate or avoid the significant effects that a Project may have on the environment. In compliance with CEQA Guidelines Section 15126.6(a), an EIR must "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives". Although the Project evaluated in this EIR would not result in any significant and unavoidable impacts on the environment, this Section identifies potential alternatives to the Project and evaluates them, as required by CEQA.

Key provisions of the State CEQA Guidelines on alternatives (Sections 15126.6[b]–15126.6[f]) are provided below to explain the foundation and requirements for the alternatives analysis in the EIR.

- The discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objective, or would be more costly (Section 15126.6[b]).
- The specific alternative of 'no project' shall also be evaluated along with its impact (Section 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 (Section 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) (Section 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" (Section 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 (Section 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 (Section 15126.6[f][3]).

6.1 ALTERNATIVES UNDER CONSIDERATION

CEQA Guidelines Section 15126.6(e) requires that an EIR include an alternative that describes what would reasonably be expected to occur on the Project Site in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services (i.e., "No Project" Alternative). Because the Project includes both a land use plan amendment (and change of zone) and a site-specific development proposal, and the Project Site is currently developed, this EIR presents the "No Project" Alternative as continuation of the existing uses on the Project Site. Sometimes this alternative is called the "No Development Alternative" but because the site is already developed, the No Project Alternative is the continuation of the existing uses, which is the reasonably foreseeable outcome in the circumstance of the Project not receiving approval.

The following alternatives are analyzed in this Section:

6.1.1 NO PROJECT ALTERNATIVE

The No Project Alternative considers no development on the Project Site beyond what occurs on the Site under existing conditions. Under this Alternative, all six of the commercial/office buildings on the Project Site would remain. This Alternative was used to compare the environmental effects of the proposed Project with an alternative that would leave the property in its existing state.

6.1.2 GENERAL PLAN CONSISTENCY REDEVELOPMENT ALTERNATIVE

The General Plan Consistency Redevelopment Alternative considers redevelopment of the southern 0.95-acre portion of the Project Site in accordance with the Site's existing land use designation, "Office/Financial" and the Site's existing zoning designation, "Administrative and Professional Office (C-P)" with a "Precise Development (P-D)" overlay, which provides for the development of administrative and professional offices and other related uses and facilities. Under this Alternative, the Project Site would be redeveloped with two office buildings. The extent of the ground disturbance is expected to be the same as would occur under the proposed Project. This Alternative was used to compare the environmental effects of the Project against a development proposal that conforms to the land use standards and development regulations prescribed by the City of Brea General Plan and City Code under the Project Site's existing land use and zoning regulations.

6.1.3 SOUTH FLOWER AVENUE CLOSURE ALTERNATIVE

The South Flower Avenue Closure Alternative considers the redevelopment of the Project Site in accordance with the proposed Project, but with the closure of South Flower Avenue adjacent to the eastern boundary of the Project Site at its intersection with Imperial Highway. South Flower Avenue would end in a cul-de-sac. As with the Project, under this Alternative, the southern 0.95-acre of the Project Site would be redeveloped with

two commercial buildings. Four of the existing commercial/office buildings would be demolished, including two 2,799 square foot (s.f.) office buildings, a 3,166 s.f. office building, and a two-story 10,109 s.f. office/commercial building. Two new commercial buildings would be constructed on-site. A 6,000 s.f. commercial building would be constructed at the northeast corner of South Orange Avenue and Imperial Highway, which would include a 2,400 s.f. sit-down restaurant and 3,600 s.f. of retail or medical office uses. A 2,000 s.f. drive-through restaurant would be constructed at the northwest corner of South Flower Avenue and Imperial Highway.

6.1 ALTERNATIVES CONSIDERED AND REJECTED

An EIR is required to identify any alternatives that were considered by the Lead Agency but were rejected as infeasible. Among the factors described by CEQA Guidelines Section 15126.6 in determining whether to exclude alternatives from detailed consideration in the EIR are: a) failure to meet most of the basic project objectives, b) infeasibility, or c) inability to avoid significant environmental impacts.

In determining an appropriate range of alternatives to be evaluated in this EIR, a number of possible alternatives were initially considered and, for a variety of reasons, rejected. Alternatives were rejected because either: 1) they could not accomplish the basic objectives of the Project, 2) they would not have resulted in a reduction of significant adverse environmental impacts, or 3) they were considered infeasible to construct or operate. A summary of the alternatives that were considered but rejected are described below.

6.1.1 ALTERNATIVE SITES

CEQA does not require that an analysis of alternative sites be included in an EIR. However, if the surrounding circumstances make it reasonable to consider an alternative site, then an alternative sites analysis should be considered and analyzed in the EIR. In making the decision to include or exclude an analysis of an alternative site, the "key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR" (CEQA Guidelines Section 15126.6(f)(2)).

Historic activities on the Project Site have resulted in pervasive and ongoing disturbance over the last 90+ years. The Project Site does not contain any natural/native habitat and the Project Site has most recently been used for commercial and office land uses. Based on review of aerial photography and the City of Brea land use and zoning maps, there are no other properties available for purchase by the Project Applicant in the City of Brea that are zoned for mixed use with similar accessibility to a State Route (Imperial Highway; SR-90) that have fewer environmental and development constraints than the Project Site evaluated in this EIR.

Development of the Project at an alternative location would likely result in similar (or greater) environmental impacts as would occur with implementation of the Project at the proposed Project Site. The Project would not result in any significant and unavoidable impacts on the environment as determined through detailed analyses provided in Section 4.0 of this EIR and the technical studies appended to this EIR. Further, an alternative site

that is not already developed or developed at the intensity of the Project Site may have additional environmental impacts that the Project would not.

In light of the foregoing reasons, a more detailed analysis of alternative sites is not warranted.

6.2 ALTERNATIVE ANALYSIS

The discussion on the following pages compares the environmental impacts expected from each alternative considered by the Lead Agency relative to the impacts of the Project. A conclusion is provided for each topic as to whether the alternative results in one of the following: (1) reduction or elimination of the Project's impact, (2) a greater impact than would occur under the Project, (3) the same impact as the Project, or (4) a new impact in addition to the Project's impacts. Table 6-1, *Alternatives to the Project – Comparison of Environmental Impacts*, at the end of this section compares the impacts of the alternatives against those of the Project and identifies the ability of the alternative to meet the basic objectives of the Project. As previously listed in EIR Section 3.0, the Project's basic objectives are:

1. To expand economic development in the City of Brea by re-developing an underutilized property with in-demand commercial uses within a portion of the City that is planned for long-term commercial and mixed-use development.
2. Provide a mix of commercial uses that are easily accessible to local residents and passers-by on SR-90 to assist in meeting the growing and evolving shopping demands of local residents in the City of Brea.
3. Provide a gathering place for City residents and visitors that includes shopping and other retail services in an aesthetically appealing environment.
4. To develop a commercial center near the Downtown Brea area which allows for a broad range of retail, office, or service-oriented business activities.

6.2.1 NO PROJECT ALTERNATIVE

The No Project Alternative allows decision-makers to compare the environmental impacts of approving the Project to the environmental impacts that would occur if the Project Site was left in its existing condition for the foreseeable future. Under existing conditions, the Project Site is developed with six commercial/office use buildings. Refer to the description of the Project Site's existing physical conditions in Section 2.0 of this EIR.

A. Aesthetics

The Project Site does not contain any unique aesthetic resources, nor does it serve as a prominent scenic vista. Under the No Project Alternative, the visual character and quality of the Project Site would be maintained in its existing condition. No new structures, landscaping, or lighting would be introduced on the Project Site. The No Project Alternative would not have the potential to conflict with the character or quality of existing and planned development surrounding the Project Site and would not create a new source of substantial light or glare that would impact nighttime views in the area. The aesthetic impact of leaving the Project site in its existing condition would be less than significant as compared to the Project's aesthetics impact.

B. Air Quality

The Project Site contains six commercial/office buildings that generate nominal amounts of air pollution associated with typical business operations (i.e., tailpipe emissions from vendor deliveries and customers traveling to and from the Project Site). The No Project Alternative would retain these uses (and nominal amounts of air pollution).

C. Biological Resources

The No Project Alternative would leave the Project Site in its existing condition, which is fully developed with six commercial/office buildings, a parking lot and perimeter landscaping. No grading would occur under this alternative and there would be no potential impacts to bird nests that may be present on the Project Site. The Projects impacts are less than significant with mandatory compliance to the federal MBTA, although there is mitigation identified in EIR Subsection 4.3 to assist in the assurance of compliance with the MBTA. Implementation of the No Project Alternative would avoid the Project's less than significant impacts to biological resources and would require no mitigation.

D. Cultural Resources

The No Project Alternative would leave the Project Site in its existing condition; no grading would occur under this Alternative and there would be no potential impacts to subsurface archeological resources that may exist beneath the ground surface. Although there are mitigation measures identified in EIR Subsection 4.4 that would reduce the Project's potential direct and cumulatively considerable impacts to cultural resources to below a level of significance, implementation of the No Project Alternative would avoid potential impacts to cultural resources associated with the Project and would require no mitigation.

E. Energy

Under the No Project Alternative, the existing uses on the Project Site would continue to operate; therefore, there would be nominal demand for additional near-term and long-term electricity and fuel use on the Site under this Alternative. Selection of this Alternative would result in a less-than-significant impact to energy. It should be noted, however, that new development that would be constructed on the Site under the proposed Project would be more energy-efficient and thus less energy intensive than continuation of the existing uses. First, the Project proposes approximately 10,873 s.f. less building space that currently occurs on the Site. Second, new development would be subject to compliance with the California Green Building Code (CALGreen), which achieves a very high level of operational energy efficiency compared to requirements in other states and compared to California requirements that were in place at the time the existing building on the Project Site were constructed in the 1990s.

F. Geology and Soils

The No Project Alternative would leave the Project Site in its existing condition. The No Project Alternative would not result in redevelopment activities on the Site or any new structures on the Project Site; accordingly, there would be no potential for this Alternative to expose people or structures to safety risks associated with geologic hazards.

With respect to paleontological resources, the No Project Alternative would not involve any excavation or grading activities. Therefore, the potential to discover previously unidentified paleontological resources is eliminated. Although there are mitigation measures identified in EIR Subsection 4.6 that would reduce the Project's potential direct and cumulatively considerable impacts to paleontological resources to below a level of significance, implementation of the No Project Alternative would avoid potential impacts to paleontological resources associated with the Project and would require no mitigation.

G. Greenhouse Gas Emissions

Under the No Project Alternative, no new development would occur on the Project Site and the existing commercial/office buildings on-site would continue to operate. Therefore, with the exception of ongoing GHG emissions associated with on-site business activities, there would be no new sources of near-term or long-term GHG emissions under the No Project Alternative. However, the Project's impacts would be less than significant. Therefore, the No Project Alternative would not avoid any less than significant impacts related to GHG emissions.

H. Hazards and Hazardous Materials

As identified in Subsection 4.8, with adherence to applicable regulations, the Project would have no impact or a less than significant impact related to hazards and hazardous materials. As with the Project, the No Project Alternative would be operated in compliance with applicable regulations and would have a less than significant impact related to transport, use and disposal of hazardous materials; and, release of hazardous materials and hazardous emissions. Additionally, consistent with the Project, the No Project Alternative would have no impact or a less than significant impact related to its location on a hazardous materials site, hazards from airport operations, emergency response/evacuation, and wildland fires.

I. Hydrology and Water Quality

No changes to the Site's existing hydrology and drainage conditions would occur under the No Project Alternative. No stormwater drainage improvements would be constructed on or adjacent to the Project Site and rainfall would continue to be discharged from the Project Site as occurs under existing conditions. Under this Alternative, the stormwater leaving the Project Site would continue to be treated by existing systems to minimize waterborne pollutants. Under both the No Project Alternative and the proposed Project, impacts would be less than significant.

J. Land Use and Planning

The No Project Alternative would not result in any redevelopment activities on the Site and would be consistent with the Site's existing General Plan designation and Zoning classification. In comparison, although the proposed Project includes a General Plan Amendment, the Project would not result in any significant unavoidable environmental effects. Therefore, the land use change would not cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

K. Noise

The No Project Alternative would not involve construction activities; therefore, noise and vibration effects associated with construction would be less than the Project. However, the Project's construction-related noise and vibration impacts would be less than significant. Therefore, the No Project Alternative would not avoid any significant impacts related to noise or vibration during construction.

Under the No Project Alternative, no new sources of permanent noise would be introduced on the Project Site and the noise generated by existing business activities would continue. Additionally, because the Project Site would not be redeveloped and no new traffic trips would be generated, the No Project Alternative would not contribute to an incremental increase in area-wide traffic noise levels. Selection of this Alternative would avoid the Project's less than significant long-term noise impacts.

L. Transportation

The No Project Alternative would not generate any new daily traffic and like the proposed Project would not alter existing sidewalk systems or bicycle lanes. Vehicle Miles Traveled (VMT) would not increase under this Alternative and would meet small project screening criteria, as does the proposed Project. No significant transportation impacts would occur under either this Alternative or the proposed Project.

M. Tribal Cultural Resources

The No Project Alternative would not involve any excavation or grading activities. Therefore, the potential to discover previously unidentified tribal cultural resources is eliminated. As such, the potential for impacts to tribal cultural resources with the No Project Alternative would be less than with the Project. Although there are mitigation measures identified in EIR Subsection 4.6 that would reduce the Project's potential direct and cumulatively considerable impacts to tribal cultural resources resources to below a level of significance, implementation of the No Project Alternative would avoid potential impacts to tribal cultural resources associated with the Project and would require no mitigation.

N. Utilities and Service Systems

No new domestic water, sewer, or stormwater drainage facilities would be needed for the No Project Alternative, and there would be no new demand for domestic water or wastewater treatment services. Also, this Alternative would not demand new or altered solid waste collection and disposal services. Neither the Project nor the No Project Alternative would result in significant or cumulatively-considerable impacts to utilities and service systems. Nonetheless, selection of this Alternative would avoid any changes in demand the proposed Project would place on utilities and service systems.

O. Conclusion

Implementation of the No Project Alternative would result in no physical environmental impacts to the Project Site beyond those that have historically occurred on the Project Site. All potentially significant effects of the Project would be avoided by the selection of this Alternative and there would be no requirement for any mitigation.

Because the No Project Alternative would not redevelop the Project Site and would not promote expanded local economic development, including through the creation of new jobs and the expansion of the local tax base, the No Project Alternative would fail to meet all of the Project's objectives.

6.2.2 General Plan Consistency Redevelopment Alternative

The General Plan Consistency Redevelopment Alternative would redevelop the southern 0.95-acre portion of the Project Site with two 6,500 s.f. office buildings, for a total of 13,000 s.f. of office space. The General Plan Consistency Redevelopment Alternative would be consistent with the Project Site's General Plan land use designation of "Office/Financial" and the City's zoning designation of "Administrative and Professional Office (C-P)" with a "Precise Development (P-D)" overlay, which allows for the development of administrative and professional offices and other related uses and facilities. This Alternative would not require a General Plan Amendment or Change of Zone (both of which are required for the Project).

A. Aesthetics

The General Plan Consistency Redevelopment Alternative would result in the redevelopment of the southern 0.95-acre of the Project Site with two office buildings as compared to the restaurant and retail/medical building and drive-thru restaurant building that are proposed with the Project. Like the proposed Project, the General Plan Consistency Redevelopment Alternative would not substantially affect views to scenic vistas and would not be located within the viewshed of a scenic highway. Further, because the Site is located in an urbanized area, the measure of visual quality and character impacts relates to regulatory compliance and the General Plan Consistency Redevelopment Alternative would be consistent with existing General Plan and zoning designations and assumed compliant with applicable Brea Municipal Code regulatory standards. Regarding light and glare, compliance with Brea Municipal Code requirements for artificial lighting would ensure less than significant impacts. Compared to the Project, impacts would be generally the same under the General Plan Consistency Redevelopment Alternative and less than significant.

B. Air Quality

The General Plan Consistency Redevelopment Alternative would result in construction activities on the southern 0.95-acre of the Project site, similar to the Project. Accordingly, construction-related air quality effects during demolition, site preparation, and grading would be similar to the Project. Even though the building uses would be different (office instead of restaurant, retail/medical, and drive-thru restaurant), the types of construction equipment and daily construction activities would be generally the same. This alternative is expected to result in similar air pollutant emissions during construction relative to the Project resulting in less than significant impacts during construction.

Because the General Plan Consistency Redevelopment Alternative would develop the Project Site with land uses that would not generate as much traffic as the Project, this Alternative would reduce the extent of the Project's less-than-significant criteria pollutant emissions.

C. Biological Resources

The General Plan Consistency Redevelopment Alternative would redevelop the southern portion of the Project Site and would result in identical impacts to biological resources as the Project. The General Plan Consistency Redevelopment Alternative would require similar mitigation as the Project and both the General Plan Consistency Redevelopment Alternative and the Project would result in less than significant impacts to biological resources.

D. Cultural Resources

The General Plan Consistency Redevelopment Alternative would redevelop the southern portion of the Project Site and would result in identical impacts to cultural resources as the Project. The General Plan Consistency Redevelopment Alternative would require similar mitigation as the Project and, after mitigation, both the General Plan Consistency Redevelopment Alternative and the Project would result in less than significant impacts to cultural resources.

E. Energy

The General Plan Consistency Redevelopment Alternative would not result in a wasteful use of energy or conflict with policies or programs related to energy efficiency. The General Plan Consistency Redevelopment Alternative would result in construction activities across the 0.95-acre southern portion of the property, similar to the Project. Accordingly, construction-related energy use would be similar to the Project. Additionally, because the General Plan Consistency Redevelopment Alternative would generate fewer daily vehicle trips than the Project, this Alternative would result in a lower demand for transportation energy resources than the Project. Notwithstanding, like the Project, the General Plan Consistency Redevelopment Alternative would result in a less than significant energy consumption impact.

F. Geology and Soils

This Alternative would disturb the same physical area as the Project and would, therefore, have the same potential for soil erosion during the construction phase as the Project. Soil erosion impacts would be less than significant under both the Project and this alternative due to mandatory compliance with federal, State, and local water quality standards. The General Plan Consistency Redevelopment Alternative would be required to comply with the same mandatory regulatory requirements as the Project to preclude substantial hazards associated with seismic ground shaking. The General Plan Consistency Redevelopment Alternative would result in similar, less than significant impacts to geology and soils as the Project.

G. Greenhouse Gas Emissions

This Alternative would disturb the same physical area as the Project and would, therefore, have the same potential for greenhouse gas emissions during the construction phase as the Project. However, the General Plan Consistency Redevelopment Alternative would not generate as many vehicle trips as would the Project, which would reduce greenhouse gas emissions. The Project impacts would be less than significant; therefore, the General Plan Consistency Redevelopment Alternative would not avoid any significant impacts related to greenhouse gas emissions.

H. Hazards and Hazardous Materials

Neither implementation of the General Plan Consistency Redevelopment Alternative nor the Project would result in a significant impact related to hazards or hazardous materials. With mandatory regulatory compliance, both the General Plan Consistency Redevelopment Alternative and the Project would pose a less than significant hazard to the public or the environment related to the use, handling, storage, and/or transport of hazardous materials.

I. Hydrology and Water Quality

Neither the Project nor the General Plan Consistency Redevelopment Alternative would result in substantial alterations to the drainage pattern of the Project Site or would result in substantial erosion effects. Accordingly, implementation of the Project and the General Plan Consistency Redevelopment Alternative would both result in less than significant impacts to existing drainage patterns.

During construction, potential hydrology and water quality effects on the Project Site would be similar under both the General Plan Consistency Redevelopment Alternative and the Project due to this Alternative and the Project both disturbing the same physical area. Like the Project, the General Plan Consistency Redevelopment Alternative would be required to implement a Stormwater Pollution Prevention Plan (SWPPP) to ensure that stormwater runoff during construction does not contain substantial pollutant concentrations. Both the Project and the General Plan Consistency Redevelopment Alternative would result in similar, and less than significant, construction impacts to hydrology and water quality.

In the long-term, potential hydrology and water quality effects on the Project Site would be similar under both the General Plan Consistency Redevelopment Alternative and the Project. The Project could generate more pollutants on-site than the General Plan Consistency Redevelopment Alternative due to an increased number of vehicles that would occur with implementation of the Project; however, both the General Plan Consistency Redevelopment Alternative and the Project would be required to implement a drainage plan and a WQMP. Similar to the Project, the General Plan Consistency Redevelopment Alternative would be required to implement a drainage plan to ensure that stormwater runoff is conveyed to local and regional stormwater drainage facilities with adequate capacity to handle runoff flows from the Project Site. Additionally, similar to the Project, the General Plan Consistency Redevelopment Alternative would be required to implement a long-term WQMP to ensure that stormwater runoff leaving the site does not contain substantial pollutant concentrations. The Project and the General Plan Consistency Redevelopment Alternative would result similar operational hydrology and water quality impacts. Impacts under the General Plan Consistency Redevelopment Alternative and the Project would be less than significant.

J. Land Use and Planning

The General Plan Consistency Redevelopment Alternative would redevelop 0.95 acres of the Project Site in accordance with the City of Brea General Plan. As such, there would be no conflicts with applicable land use plans, policies, or regulations resulting in significant environmental effects. Comparatively, the Project proposes a General Plan Amendment to address consistency between the proposed land uses and the General Plan. Although the proposed Project includes a General Plan Amendment, the Project would not result in any

significant unavoidable environmental effects. Therefore, the land use change would not cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

K. Noise

Noise associated with this Alternative would occur during short-term construction activities and under long-term operation. The General Plan Consistency Redevelopment Alternative would result in construction activities on the southern 0.95-acre portion of the property, similar to the Project. Accordingly, construction-related noise during demolition, site preparation, and grading would be similar to the Project. This alternative is also expected to result in similar noise levels during construction relative to the Project resulting in less than significant noise impacts during construction.

During operation, the General Plan Consistency Redevelopment Alternative would generate less traffic and have less outdoor onsite activity than the Project, thus resulting in reduced noise levels. Impacts for both the General Plan Consistency Redevelopment Alternative and the Project would be less than significant.

L. Transportation

The General Plan Consistency Redevelopment Alternative's office uses would generate fewer daily passenger vehicle trips to the Project Site than with the Project's restaurant, retail medical, or drive-thru restaurant. VMT trip length would be longer for an office use than for the mix of uses proposed under the Project, but both this Alternative and the proposed Project meet the small project VMT screening criterial, resulting in less-than-significant VMT impacts. Like the proposed Project, this alternative would not alter existing sidewalk systems or bicycle lanes. No significant transportation safety impacts would occur under either this Alternative or the proposed Project.

M. Tribal Cultural Resources

The General Plan Consistency Redevelopment Alternative would develop the southern 0.95-acre portion of the Project Site and would result in identical impacts to tribal cultural resources as the Project. The General Plan Consistency Redevelopment Alternative would require similar mitigation as the Project and, after mitigation, both the General Plan Consistency Redevelopment Alternative and the Project would result in less than significant impacts to tribal cultural resources.

N. Utilities and Service Systems

Like the proposed Project, the General Plan Consistency Redevelopment Alternative would result in a demand for public utility and service systems and would result in the construction of domestic water, sewer, and stormwater drainage improvements. The General Plan Consistency Redevelopment Alternative would result in a demand for domestic water, waste water treatment services, and solid waste collection and disposal services that is higher than what occurs at the Project site under existing conditions; but this alternative's overall demand would be similar to the Project's demand for the same services. Impacts would be less than significant.

O. Conclusion

The General Plan Consistency Redevelopment Alternative would lessen vehicular-related air quality, energy, greenhouse gas, and noise effects associated with the proposed Project's vehicle trip generation, but neither this Alternative or the proposed Project would result in any significant and unavoidable environmental effects. All other impacts from the General Plan Consistency Redevelopment Alternative would be similar to the Project.

The General Plan Consistency Redevelopment Alternative would fail to meet all of the Project's objectives, which are focused on the provision of commercial uses in the City of Brea.

6.2.3 South Flower Avenue Closure Alternative

The South Flower Avenue Closure Alternative would redevelop the southern 0.95-acre portion of the Project Site in the same manner as the proposed Project with two commercial buildings: a 6,000 s.f. commercial building which would include a 2,400 s.f. sit-down restaurant and 3,600 s.f. of retail or medical office uses, and a 2,000 s.f. drive-through restaurant. In addition, this Alternative would close South Flower Avenue adjacent to the eastern boundary of the Project Site at its intersection with Imperial Highway. South Flower Avenue would end in a cul-de-sac in this location. Additional right-of-way would be required to implement an offset cul-de-sac design at the terminus of South Flower Avenue should this alternative be selected. This would be subject to Brea Public Works Department review since the Brea Public Works Department has no standards for an offset cul-de-sac and the conceptual plan may change. Refer to *Technical Appendix I*, Safety Study, for a depiction of the conceptual cul-de-sac design. The City of Brea would be required to obtain right-of-way from Laurel Elementary School in order to implement the offset cul-de-sac. The pedestrian pathway to the existing Laurel Elementary School building would also need to be redesigned to ensure applicable ADA standards are met. The median and eastbound left turn lane on Imperial Highway would be closed as part of this alternative. Vehicles that currently access northbound South Flower Avenue from Imperial Highway and vehicles that currently access Imperial Highway from southbound South Flower Avenue would be rerouted to other nearby roadways.

A. Aesthetics

Like the proposed Project, the South Flower Avenue Closure Alternative would result in the redevelopment of the southern 0.95-acre of the Project Site with two commercial buildings. Additionally, this Alternative would end South Flower Avenue in a cul-de-sac at its intersection with Imperial Highway near the southeastern corner of the Project Site. Like the proposed Project, the South Flower Avenue Closure Alternative would not substantially affect views to scenic vistas and would not be located within the viewshed of a scenic highway. Regarding light and glare, compliance with Brea Municipal Code requirements for artificial lighting would ensure less than significant impacts. Compared to the Project, impacts would be generally the same under the South Flower Avenue Closure Alternative and less than significant.

B. Air Quality

The South Flower Avenue Closure Alternative would result in construction activities on the southern 0.95-acre of the Project site, similar to the Project. Accordingly, construction-related air quality effects during demolition, site preparation, and grading would be similar to the Project. Additional construction activity would occur at the intersection of South Flower Avenue and Imperial Highway to close the intersection and end South Flower Avenue in a cul-de-sac. This would increase the amount of construction-related air pollutant emissions.

Similar to the proposed Project, the South Flower Avenue Closure Alternative would require a General Plan amendment and zone change. Accordingly, the South Flower Avenue Closure Alternative would have the same less-than-significant impacts as the proposed Project.

C. Biological Resources

The South Flower Avenue Closure Alternative would disturb the same physical area as the Project and would, therefore, have the same potential impacts to biological resources on the Project Site, limited to the potential for migratory birds nesting in ornamental trees. The additional construction to close the intersection of South Flower Avenue at Imperial Highway and end South Flower Avenue in a cul-de-sac would result in greater potential impacts to migratory bird nesting habitat (trees) due to the additional area of ground disturbance. Both the Project and the South Flower Avenue Closure Alternative would require similar mitigation.

D. Cultural Resources

The South Flower Avenue Closure Alternative would disturb the same physical area as the Project and would, therefore, have the same impacts to cultural resources on the Project Site. The additional construction to close the intersection of South Flower Avenue at Imperial Highway and end South Flower Avenue in a cul-de-sac would result in a greater potential extent of impact to cultural resources due to the additional area of ground disturbance. Both the Project and the South Flower Avenue Closure Alternative would require similar mitigation.

E. Energy

The South Flower Avenue Closure Alternative would not result in a wasteful use of energy or conflict with policies or programs related to energy efficiency. This Alternative would result in construction activities across the southern 0.95-acre portion of the Project Site, similar to the Project. This Alternative would have additional construction to close the intersection of South Flower Avenue at Imperial Highway and end South Flower Avenue in a cul-de-sac, which would result in a greater usage of energy during construction and a greater usage of vehicle fuel by vehicles that have longer trip lengths due to the inability to directly access Imperial Highway from South Flower Avenue.

F. Geology and Soils

This Alternative would disturb the same physical area as the Project and would, therefore, have the same potential for soil erosion during the construction phase on the Project Site as the Project. Additional impacts

to soils would occur with this Alternative with the construction to close the intersection of South Flower Avenue at Imperial Highway. Soil erosion impacts would be less than significant under both the Project and this alternative due to mandatory compliance with federal, State, and local water quality standards. The South Flower Avenue Closure Alternative would be required to comply with the same mandatory regulatory requirements as the Project to preclude substantial hazards associated with seismic ground shaking.

G. Greenhouse Gas Emissions

This Alternative would disturb the same physical area as the Project on the Project Site; however, with the South Flower Avenue Closure, an additional area would be disturbed during construction and construction equipment uses would be greater. Further, vehicle tailpipe emissions would be greater under this Alternative as vehicle trip lengths would increase from the inability to directly access Imperial Highway from South Flower Avenue. This Alternative would, therefore, have greater potential for greenhouse gas emissions during the construction phase and operational phase as compared to the Project.

H. Hazards and Hazardous Materials

Neither implementation of the South Flower Avenue Closure Alternative nor the Project would result in a significant impact related to hazards or hazardous materials. With mandatory regulatory compliance, both the South Flower Avenue Closure Alternative and the Project would pose a less than significant hazard to the public or the environment related to the use, handling, storage, and/or transport of hazardous materials.

I. Hydrology and Water Quality

Neither the Project nor the South Flower Avenue Closure Alternative would result in substantial alterations to the drainage pattern of the Project Site or would result in substantial erosion effects. Accordingly, implementation of the Project and the South Flower Avenue Closure Alternative would both result in less than significant impacts to existing drainage patterns.

During construction, potential hydrology and water quality effects on the Project Site would be similar under both the South Flower Avenue Closure Alternative and the Project due to this Alternative and the Project both disturbing the same physical area on the Project Site. The South Flower Avenue Closure Alternative would disturb additional area with the construction of the cul-de-sac at the end of South Flower Avenue. Like the Project, the South Flower Avenue Closure Alternative would be required to implement a Stormwater Pollution Prevention Plan (SWPPP) to ensure that stormwater runoff during construction does not contain substantial pollutant concentrations. Both the Project and the South Flower Avenue Closure would result in similar, and less than significant, construction impacts to hydrology and water quality.

In the long-term, potential hydrology and water quality effects on the Project Site would be similar under both the South Flower Avenue Closure Alternative and the Project. The Project and the South Flower Avenue Closure Alternative would have a similar number of vehicles on the Project Site with implementation and both the South Flower Avenue Closure Alternative and the Project would be required to implement a drainage plan and a WQMP. Similar to the Project, the South Flower Avenue Closure Alternative would be required to implement a drainage plan to ensure that stormwater runoff is conveyed to local and regional stormwater

drainage facilities with adequate capacity to handle runoff flows from the Project Site. Additionally, similar to the Project, the South Flower Avenue Closure would be required to implement a long-term WQMP to ensure that stormwater runoff leaving the site does not contain substantial pollutant concentrations. The Project and the South Flower Avenue Closure Alternative would result similar operational hydrology and water quality impacts. Impacts under the South Flower Avenue Closure Alternative and the Project would be less than significant.

J. Land Use and Planning

Both the Project and the South Flower Avenue Closure Alternative would require a General Plan Amendment to change the land use of the property and a Zone Change. Although the proposed Project and this Alternative would involve a General Plan Amendment, neither the Project nor this Alternative would result in significant unavoidable environmental effects. Therefore, the land use change would not cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

K. Noise

Noise associated with this Alternative would occur during short-term construction activities and under long-term operation. The South Flower Avenue Closure Alternative would result in construction activities on the southern portion of the property, similar to the Project. This Alternative would have additional construction to close the intersection of South Flower Avenue at Imperial Highway and end South Flower Avenue in a cul-de-sac, Accordingly, construction-related noise during demolition, site preparation, and grading would be similar to the Project on the Project Site, but this Alternative would have increased short-term construction-related noise impacts with construction of the cul-de-sac.

During operation, the South Flower Avenue Closure Alternative would generate the same amount of traffic as the Project, thus resulting in similar noise levels during operation. Operational noise impacts for both the South Flower Avenue Closure and the Project would be less than significant.

L. Transportation

The South Flower Avenue Closure Alternative would result in the same daily passenger vehicle trips to the Project Site as the Project. However, because vehicles would not be able to directly access Imperial Highway from southbound South Flower Avenue and vehicles would not be able to directly access northbound South Flower Street from Imperial Highway, VMT would increase under this Alternative due to longer trip lengths associated with re-routing. Nonetheless, both this Alternative and the No Project Alternative would meet the small project screening criteria resulting in a less-than-significant VMT impact.

With the closure of the intersection of South Flower Avenue at Imperial Highway, it is expected that this Alternative would provide a safer environment for pedestrians in the Project area. The pedestrian pathway to the existing Laurel Elementary School building would need to be redesigned to ensure applicable ADA standards are met. Vehicles that typically access northbound South Flower Avenue from Imperial Highway would be rerouted to other nearby roadways. Brea Boulevard, Orange Avenue, and other nearby local streets

to the east are expected to experience an increase in traffic volume due to the rerouted trips. It is a reasonable assumption that cut through traffic would increase along Orange Avenue and through the Project Site. The elimination of turning movements at the intersection of South Flower Avenue and Imperial Highway may reduce potential collisions at this location However, the rerouted vehicles could increase collision frequency on Orange Avenue, Birch Street, and/or the South Flower Avenue access on Birch Street. For these reasons, the Flower Avenue Closure Alternative would have a greater safety impact than the proposed Project, although the level of impact would remain less than significant compared to the existing condition.

M. Tribal Cultural Resources

This Alternative would disturb the same physical area as the Project on the Project Site; however, with the South Flower Avenue Closure, an additional area would be disturbed during construction. This Alternative would, therefore, have greater potential for impacts to tribal cultural resources during the construction phase as compared to the Project. Both the Project and the South Flower Avenue Closure Alternative would require similar mitigation.

N. Utilities and Service Systems

Like the proposed Project, the South Flower Avenue Closure Alternative would result in a demand for public utility and service systems and would result in the construction of domestic water, sewer, and stormwater drainage improvements. The South Flower Avenue Closure Alternative would result in a demand for domestic water, waste water treatment services, and solid waste collection and disposal services that is higher than what occurs at the Project Site under existing conditions; but this alternative's overall demand would be similar to the Project's demand for the same services. Impacts would be less than significant.

O. Conclusion

The South Flower Avenue Closure Alternative would have increased impacts or potential impacts to air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, noise, and transportation. All other impacts from the South Flower Avenue Closure Alternative would be similar to the Project.

The South Flower Avenue Closure Alternative would meet all of the Project's objectives but would not reduce any of the Project's less-than-significant environmental effects and in several respects would increase impacts due to the greater extent of ground-disturbing construction activities.

6.3 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Section 15126.6(e)(2) of the CEQA Guidelines indicates that an analysis of alternatives shall identify an environmentally superior alternative among the alternatives evaluated in the EIR. In general, the environmentally superior alternative as defined by CEQA should minimize adverse impacts to the project site and its surrounding environment.

As shown in Table 6-1, *Alternatives to the Project – Comparison of Environmental Impacts*, the No Development Alternative would avoid or reduce all of the Project's significant environmental impacts and, therefore, can be considered environmentally superior to the Project. The No Development Alternative is considered to be a "no project" alternative as defined by CEQA Guidelines Section 15126.6(e)(3), and if a "no project" alternative is identified as the environmentally superior alternative then the EIR shall also identify an environmentally superior alternative among the other alternatives (see CEQA Guidelines Section 15126.6(e)(2). Thus, the General Plan Consistency Alternative is the Environmentally Superior Alternative.

The General Plan Consistency Redevelopment Alternative is the Environmentally Superior Alternative, although it does not meet the Project objectives.

Table 6-1 Alternatives to the Project – Comparison of Environmental Impacts

Environmental Topic	Project Significance of Impacts After Mitigation	No Project Alternative	General Plan Consistency Redevelopment Alternative	South Flower Avenue Closure Alternative
Aesthetics	Less than Significant Impact	Similar	Similar	Similar
Air Quality	Less than Significant Impact	Reduced	Reduced	Increased
Biological Resources	Less than Significant Impact	Reduced	Similar	Increased
Cultural Resources	Less than Significant Impact	Reduced	Similar	Increased
Energy	Less than Significant Impact	Reduced	Reduced	Increased
Geology & Soils	Less than Significant Impact	Reduced	Similar	Increased
Greenhouse Gas Emissions	Less than Significant Impact	Reduced	Reduced	Increased
Hazards & Hazardous Materials	Less than Significant Impact	Reduced	Similar	Similar
Hydrology & Water Quality	Less than Significant Impact	Increased	Similar	Similar
Land Use and Planning	Less than Significant Impact	Reduced	Reduced	Similar
Noise	Less than Significant Impact	Reduced	Reduced	Increased
Transportation	Less than Significant Impact	Reduced	Reduced	Increased
Tribal Cultural Resources	Less than Significant Impact	Reduced	Similar	Increased
Utilities and Service Systems	Less than Significant Impact	Similar	Similar	Similar
ABILITY TO MEET PROJECT OBJECTIVES				
Objective 1: To expand economic development in the City of Brea by re-developing an underutilized property with in-demand commercial uses within a portion of the City that is planned for long-term commercial and mixed-use development.		No	No	Yes
Objective 2: Provide a mix of commercial uses that are easily accessible to local residents and passers-by on SR-90 to assist in meeting the growing and evolving shopping demands of local residents in the City of Brea.		No	No	Yes

Environmental Topic	Project Significance of Impacts After Mitigation	No Project Alternative	General Plan Consistency Redevelopment Alternative	South Flower Avenue Closure Alternative
Objective 3: Provide a gathering place for City residents and visitors that includes shopping and other retail services in an aesthetically appealing environment.		No	No	Yes
Objective 4: To develop a commercial center near the Downtown Brea area which allows for a broad range of retail, office, or service-oriented business activities.		No	No	Yes

7.0 REFERENCES

7.1 PERSONS CONTRIBUTING TO EIR PREPARATION

7.1.1 CITY OF BREA COMMUNITY DEVELOPMENT DEPARTMENT, PLANNING DIVISION

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7.2 DOCUMENTS APPENDED TO THIS EIR

The following reports, studies, and supporting documentation were used in preparing the Brea Gaslight Square Redevelopment Project EIR and are bound separately as Technical Appendices. A copy of the Technical Appendices is available for review at the City of Brea, Planning Division, 1 Civic Center Circle, Brea, California 92821.

Appendix A: Notice of Preparation (NOP) and Written Comments on the NOP.

Appendix B: Urban Crossroads, 2023a. *Brea Gaslight Square, Air Quality Impact Analysis, City of Brea*. January 23, 2023.

Appendix C: Urban Crossroads, 2023b. *Brea Gaslight Square, Energy Analysis, City of Brea*. January 23, 2023.

Appendix D: Terracon Consultants, Inc., 2022. *Geotechnical Engineering Report, Proposed Brea Gaslight Square Development, Brea, Orange County, California*. May 12, 2022.

Appendix E: Urban Crossroads, 2023c. *Brea Gaslight Square, Greenhouse Gas Analysis, City of Brea*. January 23, 2023.

Appendix F1: Kimley Horn and Associates, Inc., 2022a. *Brea Gaslight Square, Technical Hydrology and Hydraulics Memorandum*. May 24, 2022.

Appendix F2: Kimley Horn and Associates, Inc., 2022b. *Preliminary County of Orange/Santa Ana Region Priority Project Water Quality Management Plan (WQMP)*. May 18, 2022.

Appendix G: Urban Crossroads, 2023d. *Brea Gaslight Square, Noise and Vibration Analysis, City of Brea*. January 20, 2023.

Appendix H1: Urban Crossroads, 2023e. *Brea Gaslight Square Trip Generation Assessment*. January 20, 2023.

Appendix H2: City of Brea, 2022d. *VMT Screening Analysis*. July 26, 2022.

Appendix I: Urban Crossroads, 2023f. *Brea Gaslight Square Safety Evaluation*. January 23, 2023.

Appendix J: Kimley Horn and Associates, Inc., 2022c. *Sewer Capacity Memorandum for a Proposed Drive-thru Restaurant and a Retail/Medical Office and Restaurant Building at 255 East Imperial Highway and the NEC of East Imperial Highway & Orange Avenue*. May 6, 2022.

7.3 Documents Incorporated by Reference

The following reports, studies, and supporting documentation were used in the preparation of this EIR and are incorporated by reference within this EIR. A copy of the following reports, studies, and supporting documentation is a matter of public record and is generally available to the public at the location listed.

Cited As:	***Citation:***
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7.4 DOCUMENTS AND WEBSITES CONSULTED

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Arcadis, 2021	Arcadis U.S., Inc. 2021. *2020 Urban Water Management Plan*. June 2021. Accessed July 22, 2022. Available on-line: https://www.ci.brea.ca.us/DocumentCenter/View/13751/Brea-2020-UWMP-FINAL-20210624
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S.0 EXECUTIVE SUMMARY

S.1 INTRODUCTION

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

This Environmental Impact Report (EIR), having California State Clearinghouse (SCH) No. 2022060598, was prepared in accordance with CEQA Guidelines Article 9, Sections 15120-15132 to evaluate the potential environmental impacts associated with planning, constructing, and operating the proposed Brea Gaslight Square Redevelopment Project (hereafter, the "Project" or "proposed Project"). This EIR does not recommend approval or denial of the proposed Project; rather, this EIR is a source of factual information regarding potential impacts that the Project may cause to the physical environment. The Draft EIR will be available for public review for a minimum period of 45 days. After consideration of public comment, the City of Brea will consider certifying the Final EIR and adopting required findings.

This Executive Summary complies with CEQA Guidelines Section 15123, "Summary." This EIR includes a description of the proposed Project and evaluates the physical environmental effects that could result from Project implementation. Pursuant to CEQA Guidelines § 15063(a), when a lead agency can determine that an EIR will be required for a project, an Initial Study is not required. An Initial Study was not prepared for this Project, however, the City of Brea has determined that implementation of the Project has the potential to result in significant environmental effects, and a Project EIR, as defined by CEQA Guidelines §15161, is required. As stated in CEQA Guidelines §15161, a Project EIR should "…focus primarily on the changes in the environment that would result from the development project," and "…examine all phases of the project including planning, construction, and operation."

The City of Brea determined that the scope of this EIR should cover 14 subject areas. The scope was determined through the independent judgment of the City of Brea pursuant to CEQA Guidelines Section 15063, and in consideration of public comment received by the City in response to this EIR's Notice of Preparation (NOP). The NOP and written comments received by the City in response to the NOP, are attached to this EIR as *Technical Appendix A*. As determined by the City and in consideration of public comment on the NOP, the 14 environmental subject areas that could be reasonably and significantly affected by planning, constructing, and/or operating the proposed Project are analyzed herein, including:

1. Aesthetics
2. Air Quality
3. Biological Resources
4. Cultural Resources
5. Energy
8. Hazards and Hazardous Materials
9. Hydrology and Water Quality
10. Land Use and Planning
11. Noise
12. Transportation

6. Geology and Soils
7. Greenhouse Gas Emissions
13. Tribal Cultural Resources
14. Utilities and Service Systems

Refer to EIR Section 4.0, *Environmental Analysis*, for a full account and analysis of the subject matters listed above. For each of the aforementioned subject areas, this EIR describes: 1) the physical conditions that existed at the approximate time this EIR's NOP was filed with the California State Clearinghouse (June 27, 2022); 2) discloses the type and magnitude of potential environmental impacts resulting from Project planning, construction, and operation; and 3) if warranted, recommends feasible mitigation measures that would reduce or avoid significant adverse environmental impacts that the proposed Project may cause. A summary of the proposed Project's significant environmental impacts and the mitigation measures imposed by the City of Brea on the Project to lessen or avoid those impacts is included in this Executive Summary as Table S-1, *Mitigation Monitoring and Reporting Program*. The City of Brea applies mitigation measures that it determines 1) are feasible and practical for project applicants to implement, 2) are feasible and practical for the City to monitor and enforce, 3) are legal for the City to impose, 4) have an essential nexus to the Project's impacts, and 4) would result in a benefit to the physical environment. CEQA does not require the Lead Agency to impose mitigation measures that are duplicative of mandatory regulatory requirements.

S.2 PROJECT OVERVIEW

S.2.1 LOCATION AND SETTING

As defined in EIR Section 1.0, *Introduction*, for purposes of analysis in this EIR, the "Project Site" consists of approximately 1.88 developed acres bound by Imperial Highway (SR-90) to the south, South Flower Street to the east, South Orange Avenue to the west, and private property to the north in the southwestern portion of the City of Brea, which is located in the northern portion of Orange County, California. The Project Site's location on a local scale is shown on Figure 3-2, *Vicinity Map*, and Figure 3-3, *USGS Topographic Map*, in Section 3.0 of this EIR.

Regionally, the City of Brea is located south of Los Angeles and San Bernardino Counties, and east of Riverside County. Surrounding cities include the City of Fullerton, the City of Placentia, and the City of Yorba Linda to the south, the City of Chino Hills to the east, and the City of La Habra to the west. To the north is unincorporated Orange County and Los Angeles County, and small areas of unincorporated Orange County also occur to the south and southwest. The Project Site is located approximately 6.1 miles northeast of Interstate 5 (I-5), 10.7 miles south of Interstate 10 (I-10), 11.7 miles east of Interstate 605 (I-605), and 0.8 mile east of State Route 57 (SR-57). The location of the Project Site in a regional context is shown on Figure 3-1, *Regional Map*, in EIR Section 3.0, *Project Description*.

S.2.2 PROJECT SUMMARY

When the term "Project" is used in this EIR with the initial letter capitalized, the term shall mean all aspects of the planning, construction, and operation of the proposed Project, including all discretionary and administrative approvals and permits required for its implementation. The Project Applicant proposes redevelopment of approximately 0.95-acre of a 1.88-acre parcel with two new commercial buildings. A 6,000 s.f. commercial building is proposed at the northeast corner of South Orange Avenue and Imperial Highway,

which would include a 2,400 s.f. sit-down restaurant and 3,600 s.f. of retail or medical office uses. In addition, an approximate 2,000 s.f. drive-through restaurant is proposed at the northwest corner of South Flower Avenue and Imperial Highway. The subject property is currently occupied with six commercial/office buildings. The Project involves the demolition of four of the existing commercial/office buildings, including two 2,799 s.f. office buildings, a 3,166 s.f. office building, and a two-story office/commercial building that contains 10,109 s.f. of floor space. Discretionary approvals required to implement the proposed Project include a General Plan Amendment (GPA No. 2022-02), Zone Change (ZC No. 2022-02), Plan Review (PR No. 2022-03), and Conditional Use Permit (CUP No. 2022-03).

S.2.3 Project Objectives

The fundamental purpose and goal of the Project is to accomplish the orderly redevelopment of a portion of Gaslight Square with the development of two commercial buildings on approximately 0.95-acre of the 1.88-acre property. The Project would achieve this goal through the following objectives.

1. To expand economic development in the City of Brea by re-developing an underutilized property with in-demand commercial uses within a portion of the City that is planned for long-term commercial and mixed-use development.
2. Provide a mix of commercial uses that are easily accessible to local residents and passers-by on SR-90 to assist in meeting the growing and evolving shopping demands of local residents in the City of Brea.
3. Provide a gathering place for City residents and visitors that includes shopping and other retail services in an aesthetically appealing environment.
4. To develop a commercial center near the Downtown Brea area which allows for a broad range of retail, office, or service-oriented business activities.

S.3 EIR Process

Following preliminary review of the Project's application materials, the City of Brea concluded that the Project and its associated implementing actions have the *potential* to result in significant environmental effects; as such, the City proceeded with preparation of this EIR pursuant to CEQA Guidelines Section 15060(d). The City filed a NOP with the California Office of Planning and Research (State Clearinghouse) to indicate that an EIR would be prepared. The NOP was distributed for a 30-day public review period, which began on June 20, 2022. The City of Brea received written comments on the scope of the EIR during those 30 days, which were considered by the City during the preparation of this EIR. The City also held an EIR scoping meeting open to the interested public agencies and members of the general public on June 28, 2022.

This EIR is being circulated for review and comment by the public and other interested parties, agencies, and organizations for a 45-day review period. During the 45-day public review period, public notices announcing availability of the Draft EIR will be mailed to interested parties and copies of the Draft EIR and its Technical Appendices will be available for review at the locations indicated in the public notices.

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

S.4 Areas of Controversy and Issues to be Resolved

CEQA Guidelines Section 15123(b)(2) requires the Lead Agency (City of Brea) to identify any known issues of controversy in the Executive Summary. Based on the City's knowledge of the Project and after consideration of all comments received in response to the NOP, the City has identified the Project's proximity to Laurel Elementary School as a potential area of controversy, primarily related to traffic patterns.

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

S.5 Alternatives to the Proposed Project

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

S.5.1 No Project Alternative

The No Project Alternative considers no development on the Project Site beyond what occurs on the Site under existing conditions. Under this Alternative, all six of the commercial/office buildings on the Project Site would remain. This Alternative was used to compare the environmental effects of the proposed Project with an alternative that would leave the property in its existing state.

S.5.2 General Plan Consistency Redevelopment Alternative

The General Plan Consistency Redevelopment Alternative considers redevelopment of the southern 0.95-acre portion of the Project Site in accordance with the Site's existing General Plan land use designation,

"Office/Financial" and the Site's existing zoning designation, "Administrative and Professional Office (C-P)" with a "Precise Development (P-D)" overlay, which provides for the development of administrative and professional offices and other relates uses and facilities. Under this Alternative, the Project Site would be redeveloped with two office buildings. The extent of the ground disturbance is expected to be the same as would occur under the proposed Project. This Alternative was used to compare the environmental effects of the Project against a development proposal that conforms to the land use standards and development regulations prescribed by the City of Brea General Plan and City Code under the Project Site's existing land use and zoning regulations.

S.5.3 South Flower Avenue Closure Alternative

The South Flower Avenue Closure Alternative considers the redevelopment of the Project Site in the same manner proposed under the Project, but with the closure of South Flower Avenue at its intersection with Imperial Highway. South Flower Avenue would end in a cul-de-sac adjacent to the southeastern corner of the Project Site. As with the Project, under this Alternative, the southern 0.95-acre of the Project Site would be redeveloped with two commercial buildings. Four of the existing commercial/office buildings would be demolished, including two 2,799 square foot (s.f.) office buildings, a 3,166 s.f. office building, and a two-story 10,109 s.f. office/commercial building. Two new commercial buildings would be constructed on-site. A 6,000 s.f. commercial building would be constructed at the northeast corner of South Orange Avenue and Imperial Highway, which would include a 2,400 s.f. sit-down restaurant and 3,600 s.f. of retail or medical office uses. A 2,000 s.f. drive-through restaurant would be constructed at the northwest corner of South Flower Avenue and Imperial Highway.

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

S.6.1 Effects Found Not to be Significant

The scope of detailed analysis in this EIR includes 14 subject areas prepared under the supervision of the City of Brea pursuant to CEQA Guidelines Section 15063 and CEQA Statute Section 21002(e), as well as consideration of public comments received by the City on this EIR's NOP and during the EIR scoping meeting. The NOP and public comments received in response to the NOP, are attached to this EIR as *Technical Appendix A*. Subject areas for which the City concluded that impacts would be less than significant and that do not warrant detailed analysis in this EIR include: agriculture and forestry resources; mineral resources; population and housing; public services; recreation; and wildfire. This EIR addresses these six topics in EIR Subsection 5.0, *Other CEQA Considerations*.

S.6.2 Significant and Unavoidable Impacts of the Proposed Project

Table S-1 provides a summary of the Project's environmental impacts, respectively, as required by CEQA Guidelines Section 15123(a). Also presented are the mitigation measures recommended by the City of Brea to further avoid adverse environmental impacts or to reduce their level of significance. After the application of all feasible mitigation measures, the Project would not result in any significant and unavoidable environmental effects.

Table S-1 Mitigation Monitoring and Reporting Program

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
4.1 Aesthetics					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The Project would not substantially affect a scenic vista. The Project Site does not contain any designated scenic vistas or scenic corridors. The Project would not substantially affect views of the Puente or Chino Hills from nearby public viewing areas.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b: Less-than-Significant Impact. The Project Site is not located within the viewshed of a scenic highway and does not contain scenic resources.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold c: Less-than-Significant Impact. The Project is located in an urbanized area would not conflict with applicable zoning and other regulations governing scenic quality during construction or operation.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold d: Less-than-Significant Impact. Compliance with Brea Municipal Code and Brea General Plan requirements for artificial lighting would ensure less-than-	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
significant impacts associated with light and glare affecting day or nighttime views in the area from on-site lighting elements.					
4.2 Air Quality					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The Project would not conflict with the SCAQMD AQMP.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b: Less than Significant Impact. Project construction and operational activities would not exceed the applicable SCAQMD regional threshold for any criteria pollutant. Thus, the Project would not contribute cumulatively considerable volumes of any air pollutant for which the SCAB does not attain federal or State air quality standards.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold c: Less than Significant Impact. Implementation of the Project would not: 1) exceed applicable SCAQMD localized criteria pollution emissions thresholds during construction and 2) would not cause or contribute to the formation of a CO "hot spot."	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
Threshold d: Less than Significant Impact. The Project would not produce air emissions that would lead to unusual or substantial construction-related or operational-related odors. The Project is required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.3 Biological Resources					
Summary of Impacts					
Threshold a: No Impact. The Project Site does not contain or support any special-status plant or wildlife species. As such, implementation of the proposed Project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service, and no impact would occur.	No mitigation is required.	N/A	N/A	N/A	No Impact

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
Threshold b: No Impact. The Project Site does not contain riparian and/or other sensitive natural habitats; therefore, the Project would have no impact on riparian or other sensitive habitats as classified by the CDFW or USFWS.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold c: No Impact. No State- or federally-protected wetlands are located on the Project Site; therefore, no impact to wetlands would occur.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold d: Less-than-Significant Impact. There is no potential for the Project to interfere with the movement of fish or impede the use of a native wildlife nursery site. Although the Project has the potential to impact nesting migratory birds protected by the federal MBTA and California Fish and Game Code should habitat removal occur during the nesting season, compliance with the federal MBTA is mandatory and the compliance with which would reduce impacts to less than significant.	Although the Project's potential for impacts to nesting birds would be less-than-significant with mandatory compliance to the federal MBTA, the following mitigation measure is recommended to assist in the assurance for MBTA compliance. **MM 4.3-1** If tree removals or construction commences between February 1 and August 31, within three days of tree removal or mobilizing construction equipment to the project site, all on-site trees and trees within 250 feet of the project site shall be inspected by a qualified biologist for the presence of migratory nesting birds. If the survey	Project Applicant; Project Biologist	City of Brea	Prior to the issuance of a grubbing permit or grading permit and within 3 days of ground-disturbing activities	Less-than-Significant Impact

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
	reveals no active nesting, construction may proceed. If the survey identifies the presence of active sensitive migratory bird nests, then the nests shall not be disturbed unless the qualified biologist verifies through non-invasive methods that either (i) the adult birds have not begun egg-laying and incubation; or (ii) the juveniles from the occupied nests are capable of independent survival. If the biologist is not able to verify these conditions, then no tree removals or construction that would be disruptive to the nest as determined by the biologist shall occur until the biologist with City concurrence verifies that the nest(s) is no longer occupied and/or juvenile birds can survive independently from the nests.				
Threshold e: No Impact. The Project would not conflict with any local policies or ordinances protecting biological resources.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold f: No Impact. The Project impact area is not located within the boundaries of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat	No mitigation is required.	N/A	N/A	N/A	No Impact

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
conservation plan. Therefore, no impact would occur.					
4.4 Cultural Resources					
Summary of Impacts					
Threshold a: No Impact. No historic resources, as defined by CEQA Guidelines Section 15064.5, are present on the Project Site and there is no reasonable potential for significant historic resources to be encountered during Project-related construction activities; therefore, no historic resources could be altered or destroyed by construction or operation of the Project.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold b: Potentially Significant Direct and Cumulatively-Considerable Impact. No known prehistoric resources are present on the Project Site and the likelihood of uncovering buried prehistoric resources on the Project Site is low because the Project Site is fully developed and past ground disturbance has occurred on the Project Site. Nonetheless, the remote potential exists for Project-	**MM 4.4-1** Prior to the issuance of a demolition permit or any permit authorizing ground-disturbing construction activities, evidence shall be provided to the City of Brea that the construction contractors have been trained on how to identify potential cultural, tribal cultural, and archaeological resources. Construction personnel in charge of supervising ground-disturbing activities must have received cultural resource awareness training within 60 days of commencing work on the Project Site.	Project Applicant; Project Archaeologist	City of Brea	Prior to issuance of a demolition permit	Less-than-Significant Impact with Mitigation

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
related construction activities to result in a direct and cumulatively-considerable impact to significant subsurface prehistoric archaeological resources should such resources be discovered during Project-related construction activities.	**MM 4.4-2** Upon discovery of any suspected cultural, tribal cultural or archaeological resources, construction activities within 100 feet of the find shall pause until the find can be assessed by a Qualified Archaeologist meeting the U.S. Secretary of the Interior Standards for archaeology and a tribal monitor/consultant representing the Gabrieleño Band Of Mission Indians Kitz Nation (if such tribal monitor chooses to participate in monitoring following adequate written notice to the Tribe). If a resource is discovered that the Qualified Archaeologist determines to be significant pursuant to the definition given in CEQA Guidelines Section 15064.5, mitigation shall occur following the guidance given in CEQA Guidelines Section 15126.4(b) and as approved by the City of Brea to reduce impacts to less than significant. Mitigation methods include but are not limited to data recovery, documentation, preservation in place, and removal for laboratory processing and analysis followed by either curation at a non-profit institution or conveyance to a culturally affiliated Native American Tribe. Work may continue on other parts of the	Project Applicant; Project Archaeologist	City of Brea	If cultural, tribal cultural, or archaeological resources are found during the Project's construction	Less-than-Significant Impact with Mitigation

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
	construction site while the evaluation takes place. **MM 4.4-3** Archaeological and Native American monitoring and excavation during construction shall be consistent with current professional standards. All feasible care to avoid any unnecessary disturbance, physical modification, or separation of human remains and associated funerary objects shall be taken. Principal personnel shall meet the Secretary of the Interior standards for archaeology and have a minimum of 10 years' experience as a principal investigator working with Native American archaeological sites in southern California. The Qualified Archaeologist shall ensure that all other personnel are appropriately trained and qualified.	Project Applicant; Project Archaeologist	City of Brea	If significant archaeological resources are found during the Project's construction	Less-than-Significant Impact with Mitigation
Threshold c: Less than Significant Impact. In the unlikely event that human remains are discovered during Project grading or other ground disturbing activities, the Project's construction contractors would be required to comply with the applicable provisions of California Health and Safety Code Section 7050.5 and California	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
Public Resources Code Section 5097 *et seq*. Mandatory compliance with State law would ensure that any discovered human remains are appropriately treated and would preclude the potential for significant impacts.					
4.5 Energy					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The amount of energy and fuel consumed by construction and operation of the Project would not be inefficient, wasteful, or unnecessary. Furthermore, the Project would not cause or result in the need for additional energy facilities or energy delivery systems.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b: Less-than-Significant Impact. The Project would not cause or result in the need for additional energy production or transmission facilities. The Project would not conflict with or obstruct the achievement of energy conservation goals within the State of California identified in State and local plans for renewable energy and energy efficiency.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
4.6 Geology and Soils					
Summary of Impacts					
Threshold a: No Impact. Implementation of the Project would not expose people or structures to substantial direct or indirect adverse effects related to liquefaction or fault rupture. The Project Site is subject to seismic ground shaking associated with earthquakes; however, mandatory compliance with local and State regulatory requirements and building codes would ensure that the Project minimizes potential hazards related to seismic ground shaking to less-than-significant levels.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold b: Less-than-Significant Impact. Implementation of the Project would not result in substantial soil erosion or loss of topsoil. The Project Applicant would be required to obtain a NPDES permit for construction activities and adhere to a SWPPP, and prepare an erosion control plan to minimize water and wind erosion. Following completion of	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
development, the Project's owner or operator would be required by law to implement a SWQMP during operation, which would preclude substantial erosion impacts in the long-term.					
Threshold c: Significant Direct Impact. There is no potential for the Project's construction or operation to cause, or be impacted by, on- or off-site landslides or lateral spreading. The Project Site contains soils that have settlement and shrinkage potential. A potentially significant impact would occur if the Project were to fail to implement the recommendations of the Project's Geotechnical Investigation (*Technical Appendix D*) to attenuate hazards associated with unstable soils.	**MM 4.6-1** Prior to the issuance of a grading permit, the Applicant shall provide written evidence to the City of Brea Building & Safety Division that a geotechnical engineer has been retained to monitor the grading operation and assure implementation of the soil settlement and expansion treatment recommendations contained in the site-specific Geotechnical Investigation prepared by Terracon Consultants and dated May 12, 2022. All recommendations shall be implemented to the performance standards specified in the Geotechnical Investigation and to the satisfaction of the geotechnical engineer. Evidence of implementation shall be provided to the Building & Safety Division prior to issuance of a building permit.	Project Applicant	City of Brea	Prior to the issuance of a grading permit	Less-than-Significant Impact with Mitigation
Threshold d: Significant Direct Impact. The Project Site contains expansive soils. A potentially significant impact would occur if the Project were to fail to	Refer to MM 4.6-1, above.	Project Applicant	City of Brea	Prior to the issuance of a grading permit	Less-than-Significant Impact with Mitigation

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
implement the recommendations of the Project's Geotechnical Investigation (*Technical Appendix D*) to attenuate hazards associated with expansive soils.					
Threshold e: No Impact. No septic tanks or alternative wastewater disposal systems are proposed to be installed on the Project Site. Accordingly, no impact would occur associated with soil compatibility for wastewater disposal systems.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold f: Significant Direct and Cumulatively-Considerable Impact. The Project would not impact any known paleontological resource or unique geological feature and has a low potential to impact such resources due to Project Site already being developed. Nonetheless, construction activities on the Project Site have the remote potential to unearth and adversely impact paleontological resource that may be buried beneath the ground surface if ground	**MM 4.6-2** Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Brea that a qualified paleontologist ("paleontologist") has been retained by the Project Applicant or contractor to be on-call should any suspected paleontological resources be encountered during Project-related construction activities.	Project Applicant; Project Paleontologist	City of Brea	Prior to the issuance of a grading permit	Less-than-Significant Impact with Mitigation
	MM 4.6-3 If a suspected paleontological resource is discovered during earth disturbance activities, the discovery shall be cordoned off with a 100-foot radius buffer by the construction contractor so as to protect the discovery from further	Project Applicant; Project Paleontologist	City of Brea	If a suspected paleontological resource is discovered during earth disturbance activities	Less-than-Significant Impact with Mitigation

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
disturbance activities extend into older alluvium soils.	potential damage, and the paleontologist shall be consulted to assess the discovery. **MM 4.6-4** If a discovery is determined to be significant by the paleontologist, the following shall occur: a. Monitoring of excavation activities in areas identified as likely to contain paleontological resources shall be performed by a qualified paleontologist or paleontological monitor for the remainder of ground-disturbing construction processes. Monitoring will be conducted full-time in areas of grading or excavation in undisturbed older alluvium deposits. b. Paleontological monitors will be equipped to salvage fossils as they are unearthed to avoid construction delays. The monitor must be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or, if present, are determined on exposure and examination by qualified paleontological personnel to have low potential to contain fossil resources. The	Project Applicant; Project Paleontologist	City of Brea	If a significant paleontological resource is discovered during earth disturbance activities	Less-than-Significant Impact with Mitigation

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
	monitor shall notify the project paleontologist, who will then notify the concerned parties of the discovery. c. Paleontological salvage during trenching and boring activities is typically from the generated spoils and does not delay the trenching or drilling activities. Fossils will be collected and identified by field number, collector, and date collected. Notes will be taken on the map location and stratigraphy of the site, which is photographed before it is vacated, and the fossils are removed to a safe place. If the site involves remains from a large terrestrial vertebrate, such as large bone(s) or a mammoth tusk, that is/are too large to be easily removed by a single monitor, a fossil recovery crew shall excavate around the find, encase the find within a plaster and burlap jacket, and remove it after the plaster is set. For large fossils, use of the contractor's construction equipment may be solicited to help remove the jacket to a safe location. d. Isolated fossils will be collected by hand and notes will be taken on the map location and stratigraphy of the site, which				

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
	is photographed before it is vacated, and the fossils are removed to a safe place. e. Particularly small invertebrate fossils typically represent multiple specimens of a limited number of organisms, and a scientifically suitable sample can be obtained from one to several five-gallon buckets of fossiliferous sediment. If it is possible to dry screen the sediment in the field, a concentrated sample may consist of one or two buckets of material. For vertebrate fossils, the test is usually the observed presence of small pieces of bones within the sediments. f. In accordance with the "Microfossil Salvage" section of the Society of Vertebrate Paleontology guidelines (2010:7), bulk sampling and screening of fine-grained sedimentary deposits (including carbonate-rich paleosols) must be performed if the deposits are identified to possess indications of producing fossil "microvertebrates" to test the feasibility of the deposit to yield fossil bones and teeth. g. In the laboratory, individual fossils will be cleaned of extraneous matrix, and recovered specimens are prepared to a				

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
	point of identification and permanent preservation (not display), including screen-washing sediments to recover small invertebrates and vertebrates. i. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage shall be conducted. The paleontological program should include a written repository agreement prior to the initiation of mitigation activities. Prior to curation, the lead agency (*e.g.*, the City of Brea) will be consulted on the repository/museum to receive the fossil material. j. A final report of findings and significance will be prepared, including lists of all fossils recovered and necessary maps and graphics to accurately record their original location(s). The report, when submitted to, and accepted by, the City of Brea, will signify satisfactory completion of the project program to mitigate impacts to any potential nonrenewable paleontological resources (*i.e.*, fossils) that might have been lost or otherwise				

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
	adversely affected without such a program in place.				
4.7 Greenhouse Gas Emissions					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The Project would produce GHG emissions that would not exceed the SCAQMD significance threshold of 3,000 MTCO2e per year. As such, the Project would have a less than significant impact on the environment.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b: Less-than-Significant Impact. The Project would be consistent with or otherwise would not conflict with, applicable regulations, policies, plans, and policy goals that would further reduce GHG emissions.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.8 Hazards and Hazardous Materials					
Summary of Impacts					
Threshold a and b: Less-than-Significant Impact. During Project construction and operation, mandatory compliance to federal, State, and local regulations would ensure that the proposed Project would not create a significant hazard to the environment due to	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
routine transport, use, disposal, or upset of hazardous materials.					
Threshold c: Less-than-Significant Impact. The Project Site is located within one-quarter mile of an existing school; however, the use of and transport of hazardous substances or materials to-and-from the Project Site during construction and long-term operational activities would be required to comply with applicable federal, State, and local regulations that would preclude substantial public safety hazards which would reduce impacts to less than significant.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold d: No Impact. The Project Site is not located on any list of hazardous materials sites complied pursuant to Government Code Section 65962.5.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold e: Less-than-Significant Impact. The Project is not located within two miles of a public airport or public use airport.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold f: Less-than-Significant Impact. The Project Site does not contain any emergency facilities nor does it serve as an emergency	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
evacuation route. During construction and long-term operation, adequate emergency vehicle access is required to be provided. Accordingly, implementation of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan.					
Threshold g: No Impact. The Project Site is not located in close proximity to wildlands or areas with high fire hazards. Thus, the Project would not expose people or structures to a significant wildfire risk.	No mitigation is required.	N/A	N/A	N/A	No Impact
4.9 Hydrology and Water Quality					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Adherence to a SWPPP and WQMP is required as part of the Project's implementation to address construction- and operational-related water quality.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
Threshold b: Less-than-Significant Impact. The Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project would impede sustainable groundwater management of the basin.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold c: Less-than-Significant Impact. The Project would be required to comply with applicable water quality regulatory requirements to minimize erosion and siltation. Additionally, the Project would not result in flooding on- or off-site or impede/redirect flood flows. Lastly, the Project would not create or contribute runoff that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold d: No Impact. The Project Site would not be subject to inundation from tsunamis, seiches, or other hazards.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold e: Less-than-Significant Impact. The Project would not	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.					
4.10 Land Use and Planning					
Summary of Impacts					
Threshold a: No Impact. The Project would not physically divide an established community.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold b: Less-than-Significant Impact. Although the Project includes a General Plan Amendment, the Project would not result in any significant and unavoidable environmental effects.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.11 Noise					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The Project would generate short-term construction and long-term operational noise but would not generate noise levels that exceed the standards established by the Brea General Plan or Municipal Code.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b: Less-than-Significant Impact. The Project's construction and operational activities would not result in a perceptible groundborne vibration or noise.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
Threshold c: No Impact. The Project Site is not located within an area exposed to high levels of noise from the Fullerton Municipal Airport. As such, the Project would not expose people to excessive noise levels associated with a public airport or public use airport.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.12 Transportation/Traffic					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The Project would not conflict with an applicable program, plan, ordinance or policy addressing the circulation system.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b: Less-than-Significant Impact. The Project meets the small project screening criteria and would have a less than significant VMT impact.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold c: Less-than-Significant Impact. The Project would not introduce any significant transportation safety hazards due to a design feature or incompatible use.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold d: No Impact. Adequate emergency access would be provided to the Project Site during construction and long-term	No mitigation is required.	N/A	N/A	N/A	No Impact

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
operation. The Project would not result in inadequate emergency access to the Site or surrounding properties.					
4.13 Tribal Cultural Resources					
Summary of Impacts					
Threshold a: Significant Direct and Cumulatively-Considerable Impact. The Project has the remote potential to result in significant impacts to tribal cultural resources in the absence of protective measures in the event that such resources are discovered during ground-disturbing construction activities.	Refer to MMs 4.4-1 through 4.4-3, above.	Project Applicant	City of Brea	Prior to issuance of demolition permit	Less-than-Significant with Mitigation
4.14 Utilities and Service Systems					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The physical environmental effects associated with installing the Project's water, wastewater, storm water drainage, and dry utility infrastructure is evaluated throughout this EIR and no adverse impacts specific to the provision utilities services have been identified.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b: Less-than-Significant Impact. The City of Brea Water	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
Services Division is expected to have sufficient water supplies to service the Project. The Project would not exceed the City of Brea Water Service Division's available supply of water during normal years, single-dry years, or multiple-dry years.					
Threshold c: Less-than-Significant Impact. Orange County Sanitation would provide wastewater treatment services to the Project site via the Fountain Valley (Plant No. 1) and Huntington Beach (Plant No. 2) treatment plants, which have adequate capacity to service the Project and no new or expanded facilities would be needed.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold d: Less-than-Significant Impact. There is adequate capacity available at the Olinda-Alpha landfill, the Frank R. Bowerman Landfill, and the Prima Deshecha Landfill to accept the Project's solid waste during both construction and long-term operation. The Project would not generate solid waste in excess of State or local standards or in excess	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Threshold	Mitigation Measures (MM)	Responsible Party	Monitoring Party	Implementation Stage	Level of Significance After Mitigation
of the capacity of local infrastructure to handle the waste.					
Threshold e: Less-than-Significant Impact. The Project would comply with all applicable federal, State, and local statutes and regulations related to the management and reduction of solid waste and pertaining to waste disposal, reduction, and recycling.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact