APRIL 2025

The Village Santa Ana Specific Plan Project Draft Supplemental Environmental Impact Report

to the City of Santa Ana General Plan Update Final Program Environmental Impact Report

(SCH No. 2020029087)

PREPARED FOR:
CITY OF SANTA ANA
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ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius
°F	degrees Fahrenheit
µg/m3	micrograms per cubic meter
AB	Assembly Bill
ac	acre
ADA	American Disabilities Act
ADT	average daily trips
AELUP	Airport Environs Land Use Plan
AFY	acre-feet per year
Air Quality and GHG Modeling Outputs	Air Quality, Greenhouse Gas Emissions, Construction Health Risk Assessment, and Energy Modeling Outputs
ALUC	airport land use commission
AMI	Area Median Income
AQMP	Air Quality Management Plan
ASF	age sensitivity factor
Basin 8- 1	Orange County Groundwater Basin
Basin 8-1 Alternative	Alternative to a Groundwater Sustainability Plan
Basin Plan	Santa Ana River Basin Water Quality Control Plan
bgs	below ground surface
BMP	best management practices
BP	before present
BPP	basin production percentage
BTU	British thermal unit
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
Cal/OSHA	California Occupational Safety and Health Administration
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code, Title 24, Part 11
CalRecycle	California Department of Resources Recycling and Recovery
CAP	Santa Ana Climate Action Plan

CARB	California Air Resources Board
CBC	California Building Code
CBSC	California Building Standards Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFC	California Fire Code
CFC	chlorofluorocarbons
CFR	Code of Federal Regulations
cfs	cubic feet per second
CH_4	methane
CHHSLs	California Human Health Screening Levels
City	City of Santa Ana
CNEL	community noise equivalent level
CO	carbon monoxide
CO_2	carbon dioxide
Cone Penetration Testing	CPT
Connect SoCal 2024	2024-2050 Regional Transportation Plan/Sustainable Communities Strategy
Construction General Permit	NPDES Construction General Permit
County	Orange County
CPETD	Crime Prevention through Environmental Design
CPUC	California Public Utilities Commission
CREC	Controlled Recognized Environmental Condition
CSUF CDR	University Fullerton's Center for Demographic Research
CWA	Clean Water Act
DAMP	Drainage Area Management Plan
dB L_{dn}	decibel day-night level
dB	decibel
dBA	A-weighted decibel
DC-5	District Center-High
DOF	department of finance
Dose-air	exposure through inhalation
DPM	Diesel Particulate Matter

DSOD	California Division of Safety of Dams
DTSC	California Department of Toxic Substances Control
du	dwelling units
EAP	Emergency Action Plans
EIR	Environmental Impact Report
EV	electric vehicle
FAA	Federal Aviation Agency
FAH	Fraction of time at home
FAR	Federal Aviation Regulations
FAR	floor area ratio
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
Focus Area	South Bristol Street Focus Area
Forecast Memorandum	Orange County Water Demand Forecast for MWD and OCWD
FTA	Federal Transit Administration
Geotechnical Feasibility Study	Updated Geotechnical Feasibility Study
GHG	greenhouse gas
gpd	gallons per day
GPU	General Plan Update
Groundwater Discharge Permit	Santa Ana Regional Water Quality Control Board Dewatering Permit
GWP	global warming potential
H_2O	water
HARP2	Hotspots Analysis and Reporting Program Version 2
HCD	California Department of Housing and Community Development Department
HCFC	hydrochlorofluorocarbons
HFC	hydrofluorocarbons
HMBP	hazardous materials business plan
HQTA	High Quality Transit Area
HRA	health risk assessments
HRC	Historic Resources Commission
HVAC	heating, ventilation, and air conditioning
I-405	Interstate 405

IEPR	Integrated Energy Policy Report
IFC	International Fire Code
In/sec	inch per second
kg	kilogram
Kizh Nation	Gabrieleno Band of Mission Indians – Kizh Nation
Km	kilometer
lbs	pounds
Ldn	Day-Night average
Leq	Equivalent sound level
LID	low-impact development
Lmax	Maximum sound level
Lmin	Minimum sound level
LST	localized significance thresholds
LTS	Less than Significant
LTS/M	Less than Significant with Mitigation
MBTA	Migratory Bird Treaty Act of 1918
Metrolink	Southern California Regional Rail Authority
Metropolitan	Metropolitan Water District of Southern California
mg	milligram
mgd	million gallons per day
MM	Mitigation Measure
MMCF/day	million cubic feet per day
$MMTCO_2e$	million metric tons of carbon dioxide equivalent
MPD	Master Plan of Storm Drainage
mph	miles per hour
MS4	multiple separate storm sewer system
$MTCO_2e$	metric tons of carbon dioxide equivalent
MW	megawatt
MWD	Metropolitan Water District of Southern California
MWh	megawatt-hours
N/A	Not Applicable
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission

National Register	National Register of Historic Places
NCCP/HCP	Natural Community Conservation and Habitat Conservation Plan
NHMLAC	Natural History Museum of Los Angeles County
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NI	No Impact
NMA	Neighborhood Mobility Areas
NNI	No New Impact
NO_2	nitrogen dioxide
NOP	Notice of Preparation
NOx	nitrogen oxides
N_2O	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
O_3	ozone
OC Basin	Orange County Basin
OC San	Orange County Sanitation District
OCCOG	Orange County Council of Governments
OCFA	Orange County Fire Authority
OCFCD	Orange County Flood Control District
OCTA	Orange County Transportation Authority
OCWD	Orange County Water District
OEHHA	Office of Environmental Health Hazard Assessment
OHP	Office of Historic Preservation
OPR	California Governor's Office of Planning and Research
OUSD	Orange Unified School District
PACE	Property Assessed Clean Energy
Pb	lead
PCB	polychlorinated biphenyls
PCBEL	Community Noise Equivalent Level
PEIR	Program EIR
PFC	perfluorocarbons
PGA	Priority Growth Areas
Phase I ESA	Phase I Environmental Site Assessment

PM_{10}	respirable particulate matter or particulate matter 10 microns or smaller in diameter
$PM_{2.5}$	fine particulate matter or particulate matter 2.5 microns or smaller in diameter
PMP	City of Santa Ana Parks Master Plan
ppb	parts per billion
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
PRD	permit registration documents
project	The Village Santa Ana Specific Plan Project
proposed project	The Proposed Village Santa Ana Specific Plan Project
PST	Pacific Standard Time
RCNM	Roadway Construction Noise Model
RCP	reinforced concrete pipe
RCRA NON GEN	Resource Conservation & Recovery Act—Non-Generators
RCRA	Resource Conservation and Recovery Act
RECs	Recognized Environmental Conditions
REL	relative exposure level
RH	relative humidity
RHNA	Regional Housing Needs Allocation
RMS	root mean square
RPS	California Renewables Portfolio Standard
RR	regulatory requirements
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Boards
S/U	Significant and Unavoidable
SAFE	Safer Affordable Fuel-Efficient
SAFE I Rule	Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program
SAMC	Santa Ana Municipal Code
Santa Ana Register	Santa Ana Register of Historical Properties
SAUSD	Santa Ana Unified School District
SB	Senate Bill
SCAG	Southern California Association of Governments

SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information
SCE	Southern California Edison
Scoping Plan	Climate Change Scoping Plan
SCS	Sustainable Communities Strategy
SD-48	Specific Development Plan Number 48
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SLF	Sacred Lands File
SNA	John Wayne Airport
SO_2	sulfur dioxide
SoCalGas	Southern California Gas Company
South Coast AQMD	South Coast Air Quality Management District
SO_X	sulfur oxides
sq ft	square feet
SP	The Village Santa Ana Specific Plan / Specific Plan
SR	State Route
SR-73	State Route 73
SRA	Source Receptor Area
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants
TAZ	Traffic Analysis Zone
TCR	tribal cultural resources
Technical Advisory	Technical Advisory on Evaluating Transportation Impacts in CEQA
The Village	The proposed Village Santa Ana Specific Plan Project
Therms	natural gas generation is expressed in this term
Tier	federal emission standards
TIS Guidelines	Traffic Impact Study Guidelines
Title 24	Title 24 Building Energy Efficiency Standards
TPA	Transit Priority Area
tpd	tons per day
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency

USFWS	United States Fish and Wildlife Service
UWMP	Urban Water Management Plans
VCP	vitrified clay pipe
VHFHSZ	very high fire hazard severity zone
VMT	vehicle miles traveled
VMT/SP	VMT per service population
VOC	volatile organic compounds
Working Group	GHG CEQA Significance Threshold Working Group
WQMP	Water Quality Management Plan
WSA	Water Supply Assessment

CHAPTER 1
EXECUTIVE SUMMARY

This Supplemental Environmental Impact Report (EIR) evaluates the environmental effects that may result from the construction and operation of the proposed Village Santa Ana Specific Plan Project (proposed project or The Village). This Supplemental EIR has been prepared in conformance with State and City of Santa Ana environmental policy guidelines for implementation of the California Environmental Quality Act (CEQA).

The Supplemental EIR is being circulated for review and comment by the public and other interested parties, agencies, and organizations for a minimum of 45 days in accordance with State CEQA Guidelines Sections 15087 and 15105. During the 45-day review period, the Supplemental EIR will be available for public review at the City's website: https://www.santa-ana.org/the-village-santa-ana-specific-plan/ or physically at the following locations:

City of Santa Ana, Planning Division Counter
20 Civic Center Plaza, M-20
Santa Ana, CA 92701

Southwest Senior Center
2201 West McFadden Avenue
Santa Ana, CA 92704

Written comments related to environmental issues in the Draft Supplemental EIR should be addressed to:

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A Notice of Availability of the Draft Supplemental EIR was published concurrently with distribution of this document.

1.1 PROJECT LOCATION

The approximately 17.2-acre project site is located along the southern edge of the City of Santa Ana, on the northeast corner of West Sunflower Avenue and Bear Street, transected by South Plaza Drive. The project site includes the following seven parcels: Assessor Parcel Numbers 412-131-10, 412-131-20, 412-131-21, 412-451-01, 412-451-02, 412-451-03, and 412-451-04. The project site is currently occupied by the South Coast Plaza Village commercial center on both sides of South Plaza Drive. Surrounding properties include South Coast Plaza, to the south across Sunflower Avenue in the City of Costa Mesa; the multi-family housing communities of Versailles on the Lake and St. Albans to the north; a retail shopping center to the east; and the Village Creek condominium community to the west across Bear Street in the City of Costa Mesa. Regional access to the project site is provided from Interstate 405 (I-405) via the Bristol Street exit or from State Route 73 (SR-73) via the Bear Street exit; local access is provided from three public roads: West Sunflower Avenue, Bear Street, and South Plaza Drive.

1.2 PROJECT BACKGROUND

The City of Santa Ana (City) General Plan Update (GPU) was adopted, and the GPU Final Program EIR (GPU PEIR) (State Clearinghouse No. 2020029087) certified, in April 2022 and went into effect on May 26, 2022. The GPU provides long-term policy direction to guide the

physical development, quality of life, economic health, and sustainability of the Santa Ana community through 2045, and provides comprehensive land use, housing, circulation and infrastructure, public service, resource conservation and public safety policies for the City. The GPU Land Use Element guides growth and development (e.g., infill development, redevelopment, use and revitalization/restoration) by designating land uses. The GPU PEIR evaluated the potential environmental effects associated with implementation of the GPU and addresses appropriate and feasible mitigation measures that would minimize or eliminate these impacts.

The project site is located within the South Bristol Street Focus Area, which is designated to create opportunities to transform auto-oriented shopping plazas to walkable, bike-friendly, and transit-friendly urban villages that incorporate a mix of high intensity office and residential living with experiential commercial uses.

1.3 BASIS FOR A SUPPLEMENTAL EIR

The GPU PEIR is a Program EIR that examined the existing environment and the total scope of environmental effects that would occur as a result of buildout of the GPU land uses. Once a Program EIR has been prepared, subsequent activities within the program or changes to the program must be evaluated to determine whether additional CEQA documentation needs to be prepared.

The key considerations in determining the need for additional CEQA review are outlined in Section 21166 of the Public Resources Code (CEQA). Pursuant to the State CEQA Guidelines, a Lead Agency must prepare a Subsequent EIR for a previously certified EIR when any of the following criteria set forth in the State CEQA Guidelines Section 15162(a)(1-3) would occur:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance, which was not known or could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:
    a. The project will have one or more significant effects not discussed in the previous EIR;
    b. Significant effects previously examined will be substantially more severe than shown in the previous EIR;
    c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
    d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the proposed proponents decline to adopt the mitigation measure or alternative.

In addition, Section 15163 of the State CEQA Guidelines states that a "Lead or Responsible Agency may choose to prepare a supplement to an EIR rather than a subsequent EIR if:

1. Any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and
2. Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation."

As detailed in Chapter 3, Project Description, the proposed project is a Specific Plan that would allow for redevelopment of the project site that may involve new significant environmental effects or a substantial increase in the previously identified effects of the GPU PEIR. Thus, the City of Santa Ana has prepared this Supplemental EIR that evaluates the potential of the proposed project to result in new or substantially greater impacts than previously identified in the GPU PEIR; and includes project specific mitigation measures to make the GPU PEIR adequate for the proposed project, pursuant to CEQA.

1.4 PROJECT DESCRIPTION SUMMARY

The proposed project would provide for redevelopment of the approximately 17.2-acre site with a mix of residential and commercial uses. The Village is proposed as a mixed-use community that allows for vertical and horizontal mixed uses across the site. The proposed project would include mixed-use commercial and residential, residential only, and commercial only buildings. In total, The Village would include up to 1,583 residential units (encompassing approximately 1,850,000 square feet of building space), 80,000 square feet of retail space, 300,000 square feet of office space, and approximately 7.5 acres of publicly accessible open space and common areas.

Construction of the proposed project is anticipated to begin January 2026 and could take up to 20 years to complete. Construction of the proposed project would be implemented in phases to reflect anticipated market conditions and to ensure that access, public facilities, and infrastructure connections are appropriately installed to serve the project. The Village would be developed in a series of five phases, which may overlap depending on the length of construction and market factors. Phase one is anticipated to include 360 residential units and 73,175 square feet of commercial space. Phases two and three would consist of further development of 513 and 177 residential dwelling units, respectively. Phase four would include the development of approximately 264 residential dwellings units, 300,000 square feet of office space, and the remaining 6,825 square feet of commercial space. The final phase five would complete the project with 269 residential units.

Demolition of the entire project site would occur during phase one of the construction period. Subsequently, the construction period for each phase would generally include excavation, grading, trenching, pile driving, installation of utilities, building construction, architectural coating, paving activities, and installation of landscaping and hardscape elements for the respective phase. The maximum excavation would reach approximately 52 feet below grade where up to four levels of subterranean parking is proposed.

1.4.1 Open Space, Recreation, and Amenities

At full buildout, the project is anticipated to provide a combined 13.8 acres of public and private outdoor and recreation space. Approximately 7.5 acres would be publicly accessible open space and approximately 6.3 acres would be private outdoor and amenity spaces for residents. Public open spaces at The Village would consist of active spaces, outdoor seating, garden paseos, a fitness loop, recreational lawn, and the incorporation of architectural features. Private open space

amenities include outdoor balconies and patios, pools and spas, outdoor kitchens, and communal gathering spaces.

1.4.2 Site Access

Vehicular access to the project site would continue to be provided from three existing public roadways offering access to The Village: Sunflower Avenue, Plaza Drive, and Bear Street. Improvements for Sunflower Avenue would include a new Class IV cycle track, landscape buffers, and continuation of the sidewalk; Plaza Drive would include adding a loading zone in the expanded right-of-way and new curb-adjacent landscape buffers; and Bear Street would include a new Class I bike lane and traffic signal at the intersection of Bear Street and Wakeham Place.

The proposed circulation network would consist of existing public roadways and a new internal network of private drives, private streets, and driveways that offer access throughout The Village. The proposed project would also provide a pedestrian network consisting of sidewalks, pedestrian paths, and a fitness loop. The project would provide parking to accommodate residents and visitors that drive to and from The Village by a combination of underground parking, above-ground structure parking, and on-street parking.

1.4.3 Water Infrastructure

The City owns and maintains the existing 12-inch asbestos cement pipe water mains on Sunflower Avenue, Bear Street, and Plaza Drive, fronting the project site. The project would construct new private water mains and private fire hydrants within the project development limits to service each proposed structure for domestic and fire water purposes.

1.4.4 Wastewater Infrastructure

The City owns and maintains an existing 8-inch vitrified clay pipe (VCP) sewer main along Sunflower Drive and a short segment of 10-inch VCP sewer main within Bear Street at the northwest corner of The Village. The remainder of the surrounding sewer network is owned and maintained by Orange County Sanitation District (OC San) and consists of a 10-inch VCP sewer main in Bear Street, a 15-inch VCP sewer main in Plaza Drive, and a 78-inch reinforced concrete pipe trunk sewer main in Sunflower Avenue.

The proposed project would include the construction of an on-site private sewer network that would convey all sewer flows generated west of Plaza Drive to discharge to the existing OC San trunk sewer main located in Sunflower Avenue. Sewer flows generated east of Plaza Drive will be connected to the existing OC San VCP sewer main in Plaza Drive as well as the existing City-owned sewer main in Sunflower Avenue to utilize available existing capacities in the system.

1.4.5 Drainage Infrastructure

The existing drainage patterns at the project site consist of storm flows in Bear Street that flow in existing reinforced concrete pipe toward Sunflower Avenue. Storm flows then turn to the east and intersect with flows generated from South Plaza Drive to the north, and ultimately continue to drain to the east toward Bristol Street.

The proposed grading and storm drain network would be designed to match existing drainage and flow patterns to best utilize the capacities available in the existing public storm drain system. Development of the proposed project would include the construction of new public water mains, fire hydrants, and meters. New domestic, irrigation, and fire water service connections for each proposed structure would be made directly to the existing and proposed public water mains.

1.4.6 General Plan Land Use and Zoning

The City's GPU Land Use Element designates the project site as District Center-High (DC-5) within the South Bristol Street Focus Area. Adoption of the Village Santa Ana Specific Plan would replace Specific Development No. 48 (SD-48) as the zoning for The Village which contains the proposed development standards, permitted uses and administrative processes for future development at the project site.

1.5 PROJECT OBJECTIVES

State CEQA Guidelines Section 15124(b) (Title 14, California Code of Regulations [CCR]) requires that the description of the project shall contain a statement of objectives sought by the proposed project. The project objectives have been developed to incorporate the GPU objectives and vision, including the GPU South Bristol Street Focus Area objectives. The following are the proposed Village Santa Ana project objectives:

- Implements the vision and objectives established in the City of Santa Ana General Plan for the South Bristol Street Focus Area as the City's southern gateway and part of the South Coast Metro area by creating opportunities to transform auto-oriented shopping plazas to walkable, bike-friendly, and transit-friendly urban villages that incorporate a mix of high-intensity office and residential living with experiential commercial uses. The following are based on the South Bristol Street Focus Area objectives:
    - Capitalizes on the success of the South Coast Metro area;
    - Introduces mixed-use urban villages and encourage experiential commercial uses that are more walkable, bike friendly, and transit oriented;
    - Provides for mixed-use opportunities while protecting adjacent, established low density neighborhoods
- Fosters a neighborly environment where residents can live, work, and recreate in a vibrant village community.
- Anchors Santa Ana's South Bristol Street Focus Area as envisioned by the City, which is to transform conventional auto-oriented shopping plazas into dynamic nodes of activity that blend healthy living, working, shopping, and dining in a contemporary village environment.
- Captures Orange County's indoor-outdoor lifestyle through attention to detail in the design of buildings, selection of materials, infusion of nature in outdoor spaces, and the activities offered in the Village.
- Builds on the foundation of this dynamic area through new experiences in food, fitness, and artisan retail.
- Complements the successful South Coast Metro area with a diversity of new housing in a jobs-rich environment.
- Attracts the innovative and start-up culture of Orange County and provides thoughtfully designed spaces to create and showcase new offerings.
- Complements and does not compete with the emerging business environment of Downtown Santa Ana.

- Allows for the flexible redevelopment of the underutilized project site to provide a balanced mix of residential, retail, recreation, and office uses in the South Bristol Street Focus Area that integrate into the existing urban systems and provide a safe and attractive environment for living and working, as encouraged by the GPU.
- Develops high quality residential spaces that reflect modern lifestyles, while responding to the vision of the GPU to help bring higher density housing into a jobs-rich area of the City planned for growth, to facilitate balancing the City's jobs-housing ratio.
- Provides a positive contribution to the local economy through new capital investment, the creation of new jobs, development of more commercial opportunities, attraction of economic activity, and the expansion of the tax base.
- Enhances alternative transportation activity by creating a walkable and bikeable mixed-use development that links with existing facilities and transit services to encourage non-automotive travel within the Specific Plan area and the local community.
- Improves existing infrastructure to support the Village Santa Ana Specific Plan consistent with the General Plan conditions.
- Provides a project that contributes to the creation of a vibrant urban core for the City by providing vibrant and attractive community amenities, recreational and open space areas, and gathering spaces that are directly accessible to residents and the community, and takes advantage of the site's location within the South Coast Metro area.
- Provides on-site open space and community-serving recreational amenities recognizing that this area of the City is currently identified as park-deficient by the GPU.
- Provides community benefits commensurate with the Specific Plan development proposal including public open space onsite and locations for public community events, as well as streetscape improvements along the project site frontages of Sunflower Avenue and Bear Street.

1.6 SUPPLEMENTAL EIR LEVEL OF ANALYSIS

The GPU PEIR (State Clearinghouse No. 2020029087) evaluated the update to the City's General Plan, including the project site within the South Bristol Street Focus Area at a District Center-High (DC-5) land use designation at a programmatic level. Project-specific developments were not evaluated within the GPU PEIR. This Supplemental EIR analyzes development of the project site at a project-specific level pursuant to the development application that has been received to make the GPU PEIR adequate for the proposed project.

1.7 ISSUES TO BE RESOLVED

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

- Whether the GPU PEIR, along with this Supplemental EIR, adequately describe the environmental impacts of the project.
- Whether to adopt the proposed Village Santa Ana Specific Plan and grant the corresponding entitlements.

- Whether the identified mitigation measures should be adopted or modified.
- Whether other mitigation measures should be applied to the project besides those identified in this Supplemental EIR.
- Whether any alternatives to the project would substantially lessen any of the potentially significant impacts of the project and achieve most of the basic project objectives and are preferable to the project.

1.8 AREAS OF CONTROVERSY

In accordance with Section 15123(b)(2) of the State CEQA Guidelines, the EIR summary must identify areas of controversy known to the lead agency, including issues raised by agencies and the public. As presented in the Chapter 2, Introduction, of this Supplemental EIR, Tables 2-1 and 2-2 describe the project concerns raised in response to the Notice of Preparation and at the public scoping meeting, respectively. These include comments related to air quality, energy, geology and soils, greenhouse gas emissions, hydrology and water quality, noise, transportation, tribal cultural resources, and utilities and service systems. Agency letters commenting on the Notice of Preparation included requests to address issues related to geologic hazards, vehicle miles traveled, transit use, traffic impacts, tribal consultation, utility connections, and air quality and greenhouse gas emissions. Other comments from the public involved requests to address impacts related to parking, traffic, noise, water resources, and energy resources.

1.9 SUMMARY OF IMPACTS

Table 1-1: Summary of Project Impacts and Mitigation Measures summarizes the conclusions of the environmental analysis contained in this Supplemental EIR. The level of significance of impacts after the proposed mitigation measures are applied are identified as significant and unavoidable, less than significant, and no impact. Relevant regulatory requirements are identified, and mitigation measures are provided for all potentially significant impacts.

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
AIR QUALITY				
AQ-1 Would the project conflict with or obstruct implementation of the applicable air quality plan?	**RR AQ-1:** New buildings are required to achieve the current California Building Energy Efficiency Standards (Title 24, Part 6) and California Green Building Standards Code (CALGreen) (Title 24, Part 11). The 2019 Building Energy Efficiency Standards became effective January 1, 2020. The Building and Energy Efficiency Standards and CALGreen are updated tri-annually with a goal to achieve net zero buildings energy for 2030. **RR AQ-2:** Construction activities will be conducted in compliance with California Code of Regulations, Title 13, Section 2449, which requires that nonessential idling of construction equipment is restricted to five minutes or less. **RR AQ-3:** Construction activities will be conducted in compliance with any applicable South Coast Air Quality Management District rules and	Potentially significant	**Project-Specific MM AQ-1:** Prior to the issuance of occupancy permits, the Planning Division shall confirm that the proposed project's Covenants, Conditions, and Restrictions (CC&Rs) and/or tenant lease agreements include contractual language that all landscaping equipment used on-site shall utilize at least 50 percent electric landscaping equipment (e.g., lawnmowers, leaf blowers, hedge trimmers). All residential and non-residential properties shall be equipped with exterior electrical outlets to accommodate this requirement. This requirement shall be included in the third-party vendor agreements for landscape services for the building owner and tenants, as applicable.	Less than significant
AQ-2 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?		Potentially significant	**GPU PEIR MM AQ-1:** Prior to discretionary approval by the City of Santa Ana for development projects subject to CEQA (California Environmental Quality Act) review (i.e., non-exempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project construction-related air quality impacts to the City of Santa Ana for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (SCAQMD) methodology for assessing air quality impacts. If construction-related criteria air	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
	regulations, including but not limited to: Rule 403, Fugitive Dust, for controlling fugitive dust and avoiding nuisance. Rule 402, Nuisance, which states that a project shall not "discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property." Rule 1113, which limits the volatile organic compound content of architectural coatings. Rule 1466, Soil Disturbance. Projects that involve earth-moving activities of more than 50 cubic yards of soil with applicable toxic air contaminants are subject to this rule.		pollutants are determined to have the potential to exceed the SCAQMD's adopted thresholds of significance, the City of Santa Ana shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during construction activities. These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City. Mitigation measures to reduce construction-related emissions could include, but are not limited to: • Require fugitive-dust control measures that exceed SCAQMD's Rule 403, such as: o Use of nontoxic soil stabilizers to reduce wind erosion. o Apply water every four hours to active soil-disturbing activities. o Tarp and/or maintain a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials. • Use construction equipment rated by the United States Environmental Protection Agency as having Tier 3 (model year 2006 or newer) or Tier	

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
			4 (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower. • Ensure that construction equipment is properly serviced and maintained to the manufacturer's standards. • Limit nonessential idling of construction equipment to no more than five consecutive minutes. • Limit on-site vehicle travel speeds on unpaved roads to 15 miles per hour. • Install wheel washers for all exiting trucks or wash off all trucks and equipment leaving the project area. • Use Super-Compliant volatile organic compound paints for coating of architectural surfaces whenever possible. A list of Super-Compliant architectural coating manufactures can be found on the SCAQMD's website. **GPU PEIR MM AQ-2:** Prior to discretionary approval by the City of Santa Ana for development projects subject to CEQA (California Environmental Quality Act) review (i.e., non-exempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project operation phase-related air quality impacts to the City of Santa Ana for review	

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
			and approval. The evaluation shall be prepared in conformance with SCAQMD methodology in assessing air quality impacts. If operation-related air pollutants are determined to have the potential to exceed the SCAQMD's adopted thresholds of significance, the City of Santa Ana shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operational activities. The identified measures shall be included as part of the conditions of approval. Possible mitigation measures to reduce long-term emissions could include, but are not limited to the following: • For site-specific development that requires refrigerated vehicles, the construction documents shall demonstrate an adequate number of electrical service connections at loading docks for plug-in of the anticipated number of refrigerated trailers to reduce idling time and emissions. • Applicants for manufacturing and light industrial uses shall consider energy storage and combined heat and power in appropriate applications to optimize renewable energy generation systems and avoid peak energy use.	

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
			• Site-specific developments with truck delivery and loading areas and truck parking spaces shall include signage as a reminder to limit idling of vehicles while parked for loading/unloading in accordance with California Air Resources Board Rule 2845 (13 CCR Chapter 10 § 2485). • Provide changing/shower facilities as specified in Section A5.106.4.3 of the CALGreen Code (Nonresidential Voluntary Measures). • Provide bicycle parking facilities per Section A4.106.9 (Residential Voluntary Measures) of the CALGreen Code and Sec. 41-1307.1 of the Santa Ana Municipal Code. • Provide preferential parking spaces for low-emitting, fuel-efficient, and carpool/van vehicles per Section A5.106.5.1 of the CALGreen Code (Nonresidential Voluntary Measures). • Provide facilities to support electric charging stations per Section A5.106.5.3 (Nonresidential Voluntary Measures) and Section A5.106.8.2 (Residential Voluntary Measures) of the CALGreen Code.	

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
			• Applicant-provided appliances (e.g., dishwashers, refrigerators, clothes washers, and dryers) shall be Energy Star–certified appliances or appliances of equivalent energy efficiency. Installation of Energy Star– certified or equivalent appliances shall be verified by Building & Safety during plan check. • Applicants for future development projects along existing and planned transit routes shall coordinate with the City of Santa Ana and Orange County Transit Authority to ensure that bus pad and shelter improvements are incorporated, as appropriate. **Project-Specific MM AQ-1**, listed previously.	
AQ-3 Would the project expose sensitive receptors to substantial pollutant concentrations?		Potentially significant	**GPU PEIR MM AQ-1,** listed previously.	Less than significant
AQ-4 Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?		Less than significant	No mitigation measures are required.	Less than significant
Cumulative		Potentially significant	**Project-Specific MM AQ-1 and GPU PEIR MM AQ-1**, listed previously.	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
CULTURAL RESOURCES				
C-1 Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?		No impact	No mitigation measures are required.	No impact
C-2 Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		Potentially significant	**GPU PEIR MM CUL-6:** If the archaeological assessment did not identify archaeological resources but found the area to be highly sensitive for archaeological resources, a qualified archaeologist and a Native American monitor approved by a California Native American Tribe identified by the Native American Heritage Commission as culturally affiliated with the project area shall monitor all ground-disturbing construction and pre-construction activities in areas with previously undisturbed soil of high sensitivity. The archaeologist shall inform all construction personnel prior to construction activities of the proper procedures in the event of an archaeological discovery. The training shall be held in conjunction with the project's initial on-site safety meeting and shall explain the importance and legal basis for the protection of significant archaeological resources. The Native American monitor shall be invited to participate in this training. In the event that archaeological resources (artifacts or features) are exposed during ground-disturbing activities, construction activities in	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
			the immediate vicinity of the discovery shall be halted while the resources are evaluated for significance by an archaeologist who meets the Secretary's Standards. and This will include tribal consultation and coordination with the Native American monitor in the case of a prehistoric archaeological resource or tribal resource. If the discovery proves to be significant, the long-term disposition of any collected materials should be determined in consultation with the affiliated tribe(s), where relevant; this could include curation with a recognized scientific or educational repository, transfer to the tribe, or respectful reinternment in an area designated by the tribe.	
CUL-3 Would the project disturb any human remains, including those interred outside of dedicated cemeteries?	**RR CUL-1:** California Health and Safety Code Section 7050.5 requires that if human remains are discovered within the proposed project site, disturbance of the site shall halt and remain halted until the coroner has investigated the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. If	Less than significant	No mitigation measures are required.	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
	the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes or has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.			
Cumulative		Potentially significant	**GPU PEIR MM CUL-6**, listed previously.	Less than significant
ENERGY				
E-1 Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	**RR E-1:** Construction activities will be conducted in compliance with California Code of Regulations Section 2485, which requires that nonessential idling of construction equipment be restricted to five minutes or less. **RR E-2:** At least 65 percent of all nonhazardous construction and demolition waste from nonresidential construction associated with future development in the plan area shall be recycled and/or salvaged for reuse in line with the 2016 California Green Building Standards Code	Less than significant	No mitigation measures are required.	Less than significant
E-2 Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?		Less than significant	No mitigation measures are required.	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
	Section 5.408 (California Code of Regulations, Title 24, Part 11). **RR E-3:** New buildings implemented as part of the General Plan Update are required to achieve the current California Building Energy and Efficiency Standards (California Code of Regulations, Title 24, Part 6) and California Green Building Standards Code (California Code of Regulations, Title 24, Part 11). **RR E-4:** Any appliances associated with development in the Plan Area shall meet the requirements of the 2012 Appliance Efficiency Regulations. **RR E-5:** Development under the General Plan Update shall support the goals of the renewables portfolio standard, SB 350, and SB 100 to achieve a tiered increase in the use of renewable energy to 60 percent by 2030, and 100 percent by 2045. **RR E-7:** Development under the General Plan Update shall be in compliance with state and local solid waste regulations			

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
	including AB 939, AB 341, AB 1327, AB 1826, and Section 5.408 of 2016 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11).			
Cumulative		Less than significant	No mitigation measures are required.	Less than significant
GEOLOGY AND SOILS				
G-1(i) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	**RR G-1**: Every public agency enforcing building regulations must adopt the provisions of the California Building Code (CBC), which is Title 24, Part 2 of the California Code of Regulations. The most recent version is the 2019 CBC (effective January 1, 2020).[1] The CBC is updated every three years and provides minimum standards to protect property and public safety by regulating the design and construction of excavations, foundations, building frames, retaining walls, and other building elements to mitigate the effects of seismic shaking and adverse soil conditions. The CBC also contains	Less than significant	No mitigation measures are required.	Less than significant
G-1(ii) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:		Potentially significant	**Project-Specific MM G-1**: Incorporation of and Compliance with a Design-Level Geotechnical Investigation A final design-level geotechnical investigation that complies with all	Less than significant

[1] The latest version of the CBC is the 2022 CBC, effective as of Jan 1, 2023.

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
strong seismic ground shaking?	provisions for earthquake safety based on factors including occupancy type, the types of soil and rock on-site, and the strength of ground shaking with specified probability of occurring at a site. **RR G-2:** Santa Ana Municipal Code, Chapter 8, Buildings and Structures. These codes address grading standards, excavation, and fills. This also includes compliance with regulations for unreinforced masonry structures in accordance with "Unreinforced Masonry Law," found in California Government Code §§ 8875 et seq. The City of Santa Ana Building Official may place additional requirements upon the construction of infrastructure, buildings, and other improvements based on the findings from plan check, soils testing, and geotechnical investigations. **RR G-3:** Santa Ana Municipal Code Section 39-51 requires that all buildings or structures within the city that require		applicable state and local code requirements shall be prepared for each project structure by a qualified, California-licensed geotechnical engineer consistent with the California Building Code and City of Santa Ana requirements applicable at the time of issuance of grading or construction permits. The final design-level geotechnical investigation shall include recommendations related to site grading and earthwork, fill materials, compaction, foundations, dewatering, and other structural elements. The report recommendations shall be included in construction specifications and permits, approved by the City's Building and Safety Division, and confirmed through on-site inspections. **Project-Specific MM G-2:** Implementation of Geotechnical Recommendations Project plans, grading specifications, and construction permitting shall incorporate site-specific earthwork and ground improvement requirements related to seismic ground shaking, liquefaction, settlement, collapse, subsidence, and expansive soils consistent with the California Building Code and City of Santa Ana requirements applicable at the time of issuance of grading or construction permits as stated in the final design-level geotechnical investigation and approved by the City's Building and Safety Division. This shall include recommendations related to	

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
	plumbing fixtures must be connected to a public sewer.		site grading and earthwork, fill materials, compaction, foundations, dewatering, and other structural elements.	
G-1(iii) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: seismic-related ground failure, including liquefaction?		Potentially significant	**Project-Specific MM G-1** and **MM G-2**, listed previously.	Less than significant
G-1(iv) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: landslides?		Less than significant	No mitigation measures are required.	Less than significant
G-2 Would the project result in substantial soil erosion or the loss of topsoil?		Less than significant	No mitigation measures are required.	Less than significant
G-3 Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		Potentially significant	**Project-Specific MM G-1** and **MM G-2**, listed previously.	Less than significant
G-4 Would the project be located on expansive soil, as defined in Table 18-1-B of the		Potentially significant	**Project-Specific MM G-1** and **MM G-2**, listed previously.	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?				
G-5 Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?		No impact	No mitigation measures are required.	No impact
G-6 Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		Potentially significant	**GPU PEIR MM GEO-2:** Prior to issuance of a grading permit for projects involving ground disturbance in previously undisturbed areas mapped with "low-to-high" paleontological sensitivity, the project applicant shall consult with a geologist or paleontologist to confirm whether the grading would occur at depths that could encounter highly sensitive sediments for paleontological resources. If confirmed that underlying sediments may have high sensitivity, construction activity shall be monitored by a qualified paleontologist. The paleontologist shall have the authority to halt construction during construction activity as outlined in Mitigation Measure GEO-3. **GPU PEIR MM GEO-3:** In the event of any fossil discovery, regardless of depth or geologic formation, construction work shall	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
			halt within a 50-foot radius of the find until its significance can be determined by a qualified paleontologist. Significant fossils shall be recovered, prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and deposited in a designated paleontological curation facility in accordance with the standards of the Society of Vertebrate Paleontology (2010). The most likely repository is the Natural History Museum of Los Angeles County. The repository shall be identified and a curatorial arrangement shall be signed prior to collection of the fossils. **Project-Specific MM G-3**: The project applicant shall retain a qualified professional paleontologist to monitor or supervise full-time monitoring should excavation occur into native Pleistocene-age soil and bedrock greater than 4 feet in depth. Ground disturbance refers to activities that would impact subsurface geologic deposits, such as grading, excavation, boring, etc. Activities taking place in current topsoil or within previously disturbed fill sediments, e.g., clearing, grubbing, pavement rehabilitation, do not require paleontological monitoring. Bedrock can occur at varying depths depending on the portion of the project area.	

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
			If no significant fossils have been recovered after 50 percent of excavation has been completed, full-time monitoring may be modified to weekly spot-check monitoring at the discretion of the qualified professional paleontologist. If the qualified professional paleontologist determines during the course of excavations that project excavations are located within fill or disturbed soils, or that the sensitivity for significant paleontological resources is otherwise low, then monitoring may be reduced or suspended at the qualified professional paleontologist's discretion. The determination to reduce or discontinue paleontological monitoring in the project area shall be based on the professional opinion of the qualified professional paleontologist regarding the potential for fossils to be present after a reasonable extent of the geology and stratigraphy has been evaluated.	
Cumulative		Potentially significant	**GPU PEIR MM GEO-2** and **MM GEO-3**, and **Project-Specific MM G-1** through **MM G-3**, listed previously.	Less than significant
GREENHOUSE GAS EMISSIONS				
GHG-1 Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	**RR GHG-1:** New buildings are required to achieve the current California Building Energy Efficiency Standards (Title 24, Part 6) and California Green Building Standards (CALGreen)	Less than significant	No mitigation measures are required. Nonetheless, **Project-Specific MM AQ-1**, listed previously, would apply.	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
GHG-2 Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Code (Title 24, Part 11). The 2019 Building Energy Efficiency Standards became effective January 1, 2020. The Building and Energy Efficiency Standards and CALGreen are updated tri-annually. **RR GHG-2:** Construction activities are required to adhere to California Code of Regulations, Title 13, Section 2449, which restricts the nonessential idling of construction equipment to five minutes or less. **RR GHG-3:** New buildings are required to adhere to the California Green Building Standards Code and Water Efficient Landscape Ordinance requirements to increase water efficiency and reduce urban per capita water demand. **RR GHG-7:** The California Green Building Standards Code (CALGreen) requires the recycling and/or salvaging for reuse at minimum of 65 percent of the nonhazardous construction and demolition waste generated during most "new construction" projects (CALGreen Code §§ 4.408 and	Less than significant	No mitigation measures are required.	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
	5.408). Construction contractors are required to submit a construction waste management plan that identifies the construction and demolition waste materials to be diverted from disposal by recycling, reuse on the project, or salvaged for future use or sale and the amount (by weight or volume).			
Cumulative		Less than significant	No mitigation measures are required.	Less than significant
HAZARDS AND HAZARDOUS MATERIALS				
H-1 Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	**RR HAZ-1:** Hazardous materials and hazardous wastes will be transported to and/or from projects developed under the General Plan Update in compliance with any applicable state and federal requirements, including the U.S. Department of Transportation regulations listed in the Code of Federal Regulations (Title 49, Hazardous Materials Transportation Act); California Department of Transportation standards; and the California	Less than significant	No mitigation measures are required.	Less than significant
H-2 Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		Less than significant	No mitigation measures are required.	Less than significant
H-3 Would the project emit hazardous emissions or handle hazardous or acutely		No impact	No mitigation measures are required.	No impact

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Occupational Safety and Health Administration standards. **RR HAZ-2:** Hazardous waste generation, transportation, treatment, storage, and disposal will be conducted in compliance with Subtitle C of the Resource Conservation and Recovery Act (Code of Federal Regulations, Title 40, Part 263), including the management of nonhazardous solid wastes and underground tanks storing petroleum and other hazardous substances. The projects developed under the General Plan Update will be designed and constructed in accordance with the regulations of the Orange County Health Care Agency, Environmental Health Division, which serves as the designated Certified Unified Program Agency. **RR HAZ-4:** Demolition activities that have the potential to expose construction workers and/or the public to asbestos-containing materials or lead-based paint will be conducted in accordance with applicable regulations, including, but not limited to:			
H-4 Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, create a significant hazard to the public or the environment?		No impact	No mitigation measures are required.	No impact
H-5 For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?		No impact	No mitigation measures are required.	No impact
H-6 Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		Less than significant	No mitigation measures are required.	Less than significant
H-7 Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?		No impact	No mitigation measures are required.	No impact

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
	• South Coast Air Quality Management District's Rule 1403 • California Health and Safety Code (Section 39650 et seq.) • California Code of Regulations (Title 8, Section 1529) • California Occupational Safety and Health Administration regulations (California Code of Regulations, Title 8, Section 1529 [Asbestos] and Section 1532.1 [Lead]) • Code of Federal Regulations (Title 40, Part 61 [asbestos], Title 40, Part 763 [asbestos], and Title 29, Part 1926 [asbestos and lead]) **RR HAZ-5:** The removal of hazardous materials, such as polychlorinated biphenyls (PCBs), mercury-containing light ballast, and mold, will be completed in accordance with applicable regulations pursuant to 40 CFR 761 (PCBs), 40 CFR 273 (mercury-containing light			

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
	ballast), and 29 CFR 1926 (molds) by workers with the hazardous waste operations and emergency response (HAZWOPER) training, as outlined in 29 CFR 1910.120 and 8 CCR 5192. **RR HAZ-6**: New construction, excavations, and/or new utility lines within 10 feet or crossing existing high-pressure pipelines, natural gas/petroleum pipelines, or electrical lines greater than 60,000 volts will be designed and constructed in accordance with the California Code of Regulations (Title 8, Section 1541). **RR HAZ-7:** Development will be designed and constructed in accordance with the airport environs land use plan for John Wayne Airport. Building height restrictions, as specified in the airport environs land use plan, would apply in the city.			
Cumulative		Less than significant	No mitigation measures are required.	Less than significant
HYDROLOGY AND WATER QUALITY				
HYD-1 Would the project violate any water quality	**RR HYD-1:** All development pursuant to the General Plan	Less than significant	No mitigation measures are required.	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Update shall comply with the requirements of the Construction General Permit (Order No. 2022-0057-DWQ) for stormwater discharges associated with construction activity. Compliance requires filing a Notice of Intent, a Risk Assessment, a Site Map, a Storm Water Pollution Prevention Plan and associated best management practices, an annual fee, and a signed certification statement. **RR HYD-4:** All development pursuant to the General Plan Update shall comply with the requirements of the Orange County MS4 Permit (Order R8-2009-0030, NPDES No. CAS618030, as amended by Order No. R8-2010-0062). The MS4 Permit requires new development and redevelopment projects to: • Control contaminants into storm drain systems • Educate the public about stormwater impacts			
HYD-2 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?		Less than significant	No mitigation measures are required.	Less than significant
HYD-3(i) 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?		Less than significant	No mitigation measures are required.	Less than significant
HYD-3(ii) 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 substantially increase		Less than significant	No mitigation measures are required.	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	• Detect and eliminate illicit discharges • Control runoff from construction sites • Implement best management practices and site-specific runoff controls and treatments for new development and redevelopment **RR HYD-5:** All development pursuant to the General Plan Update shall comply with the requirements detailed in Chapter 18 Article IV of the Santa Ana Municipal Code.			
HYD-3 (iii) 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: create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?		Less than significant	No mitigation measures are required.	Less than significant
HYD-3(iv) 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: impede or redirect flood flows?		Less than significant	No mitigation measures are required.	Less than significant
HYD-4 Would the project in flood hazard, tsunami, or seiche zones, risk release of		Less than significant	No mitigation measures are required.	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
pollutants due to project inundation?				
HYD-5 Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?		Less than significant	No mitigation measures are required.	Less than significant
Cumulative		Less than significant	No mitigation measures are required.	Less than significant
LAND USE AND PLANNING				
LU-1 Would the project physically divide an established community?	**RR LU-1:** Development associated with the General Plan Update would be designed and constructed in accordance with the applicable provisions of Chapter 41 (Zoning) of the City of Santa Ana Municipal Code. Development within specific plan areas, overlay areas, and specific development districts would implement zoning and development standards that are applicable within these subareas in addition to those in the underlying zoning district. **RR HAZ-7:** Development will be designed and constructed in accordance with the airport environs land use plan (AELUP) for John Wayne	Less than significant	No mitigation measures are required.	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
	Airport. Building height restrictions, as specified in the AELUP, would apply in the city.			
LU-2 Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?		Less than significant	No mitigation measures are required.	Less than significant
Cumulative		Less than significant	No mitigation measures are required.	Less than significant
NOISE				
N-1 Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	**RR NOI-1:** California Building Code: The California Building Code (CBC), Title 24, Part 2, Volume 1, Chapter 12, Interior Environment, Section 1207.11.2, Allowable Interior Noise Levels, requires that interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. The noise metric is evaluated as either the day-night average sound level (L_{dn}) or the community noise equivalent level (CNEL), consistent with the noise	Potentially significant	**Project Specific MM NOI-1:** Prior to the issuance of a permit to conduct nighttime construction activities (e.g., overnight concrete pours), the Project Applicant shall obtain a permit from the City to complete work outside the standard construction hours outlined in Santa Ana Municipal Code Section 18-314(e). In addition, the Project Applicant and/or contractor(s) shall develop a nighttime construction noise control plan that demonstrates the construction techniques that will be implemented to ensure noise levels remain below the FTA's nighttime construction noise criterion of 70 dBA L_{eq}. Examples of such construction techniques include but are not limited to the following:	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
	element of the local general plan. The State of California's noise insulation standards for non-residential uses are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 11, California Green Building Standards Code (CALGreen). CALGreen noise standards are applied to new or renovation construction projects in California to control interior noise levels resulting from exterior noise sources. Proposed projects may use either the prescriptive method (Section 5.507.4.1) or the performance method (Section 5.507.4.2) to show compliance. Under the prescriptive method, a project must demonstrate transmission loss ratings for the wall and roof-ceiling assemblies and exterior windows when located within a noise environment of 65 dBA CNEL or higher. Under the performance method, a project must demonstrate that interior noise levels do not exceed 50 dBA L_{eq}(1hr).		• Locate stationary equipment (e.g., generators, air compressors, etc.) away from off-site residences/sensitive receptors. • Surround stationary equipment with noise barriers or utilize a temporary noise barrier to block the line of sight from such equipment to nearby off-site residences/sensitive receptors. • Identify minimum separation distances between mobile equipment (e.g., concrete mixer trucks, concrete pump trucks, etc.) and residences/sensitive receptors.	
N-2 Would the project result in generation of excessive groundborne vibration or groundborne noise levels?		Less than significant	No mitigation measures are required.	Less than significant
N-3 For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?		Less than significant	No mitigation measures are required.	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
	RR NOI-2: Construction Noise Sources: Section 18-314(e) of the Santa Ana Municipal Code prohibits construction activities to the hours of 7:00 AM to 8:00 PM Monday through Saturday. **RR NOI-3:** Stationary Noise Sources: Section 18.312 of the Santa Ana Municipal Code establishes standards for stationary noise sources (see Table 4.9-2: Land Use Compatibility for Community Noise Environments).			
Cumulative		Potentially significant	**Project-Specific MM NOI-1**, listed previously.	Less than significant
POPULATION AND HOUSING				
P-1 Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	As noted in the GPU PEIR, no existing regulations are applicable to population and housing impacts.	Less than significant	No mitigation measures are required.	Less than significant
P-2 Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?		No impact	No mitigation measures are required.	No impact

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Cumulative Impacts		Less than significant	No mitigation measures are required.	Less than significant
PUBLIC SERVICES				
FP-1 Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios and response times or other performance objectives for fire protection services?	**RR FP-1:** New buildings are required to meet the fire regulations outlined in the California Health and Safety Code (Sections 13000 et seq.).	Less than significant	No mitigation measures are required.	Less than significant
PP-1 Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios and response times or other performance objectives for police protection services?	The City's GPU does not include regulatory requirements related to police services.	Less than significant	No mitigation measures are required.	Less than significant
SS-1 Would the project result in substantial adverse physical	**RR SS-1:** New residential and commercial development shall	Less than significant	No mitigation measures are required.	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
impacts associated with the provision of new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios and response times or other performance objectives for school services?	pay development fee authorized by Section 65996 of the California Government Code to be "full and complete school facilities mitigation."			
LS-1 Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered library facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios and response times or other performance objectives for library services?	**RR LS-1:** New residential development shall pay a property excise tax per the City Municipal Code Section 35-114, Residential Development Tax.	Less than significant	No mitigation measures are required.	Less than significant
Cumulative		Less than significant	No mitigation measures are required.	Less than significant
RECREATION				
R-1 Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the	**RR REC-1:** Residential development associated with the General Plan Update will be required to comply with the provisions of the Municipal Code Chapter 35, Article IV	Potentially significant	Although no feasible mitigation measures exist to reduce the impacts assessed in the GPU PEIR to a less than significant level, the proposed project would result in no new impacts beyond those identified in the GPU PEIR.	Significant and unavoidable (No new impacts beyond GPU

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
facility would occur or be accelerated?	(Residential Development Fee). Residential development is mandated to pay fees, dedicate land in lieu thereof, or a combination of both for the purpose of preserving recreational facilities in the City.			PEIR impacts).
R-2 Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?		Potentially significant	Although no feasible mitigation measures exist to reduce the impacts assessed in the GPU PEIR to a less than significant level, the proposed project would result in no new impacts beyond those identified in the GPU PEIR.	Significant and unavoidable (No new impacts beyond GPU PEIR impacts).
Cumulative		Potentially significant	Although no feasible mitigation measures exist to reduce the impacts assessed in the GPU PEIR to a less than significant level, the proposed project would result in no new impacts beyond those identified in the GPU PEIR.	Significant and unavoidable (No new impacts beyond GPU PEIR impacts).
TRANSPORTATION				
T-1 Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	**RR T-1:** The City will design and operate a balanced, multimodal circulation system network with all users in mind—including bicyclists, public transportation vehicles and riders, and pedestrians of all ages and abilities in line with the California Complete Streets Act (Assembly Bill 1358). **RR T-2:** Projects pursuant to the General Plan Update will implement fire protection requirements as detailed in the	Less than significant	No mitigation measures are required.	Less than significant
T-2 Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?		Less than significant	No mitigation measures are required.	Less than significant
T-3 Would the project substantially increase hazards		Less than significant	No mitigation measures are required.	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Orange County Fire Authority's Fire Prevention Guidelines and in the California Fire Code.			
T-4 Would the project result in inadequate emergency access?		Less than significant	No mitigation measures are required.	Less than significant
Cumulative		Less than significant	No mitigation measures are required.	Less than significant
TRIBAL CULTURAL RESOURCES				
TCR-1 Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 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)?	**RR TCR-1:** As per Assembly Bill 52, within 14 days of deciding to undertake a project or determining that a project application is complete, the lead agency must provide formal written notification to all tribes who have requested it. **RR CUL-1:** California Health and Safety Code Section 7050.5 requires that if human remains are discovered within the proposed project site, disturbance of the site shall halt and remain halted until the coroner has investigated the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of	Potentially significant	**GPU PEIR MM CUL-6**, listed previously. **Project-Specific MM TCR-1:** Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities: a. The project applicant shall retain a Native American monitor from or approved by the Gabrieleño Band of Mission Indians-Kizh Nation. The monitor shall be retained prior to the commencement of any "ground-disturbing activity" for the subject project at any project locations (i.e., both onsite and any offsite locations that are included in the project description/definition and/or required in connection with the proposed project, such as public improvement work). "Ground-	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
	the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes or has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.		disturbing activity" shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching. b. A copy of the executed monitoring agreement shall be submitted to the Lead Agency prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity. c. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered tribal cultural resources, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or "TCR"), as well as any discovered Native American (ancestral) human	

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
			remains and burial goods. Copies of monitor logs will be provided to the project applicant upon written request to the Tribe. d. Onsite tribal monitoring shall conclude upon the earlier of the following (1) written confirmation to the Kizh from a designated point of contact for the project applicant or lead agency that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the project applicant or Lead Agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh tribal cultural resources. **Project-Specific MM TCR-2:** Unanticipated Discovery of Tribal Cultural Resource Objects (Non-Funerary/Non-Ceremonial): a. Upon discovery of any tribal cultural resources, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered tribal cultural resource	

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
			has been fully assessed by the Kizh monitor in consultation with a qualified archaeologist. The Kizh will recover and retain all discovered tribal cultural resources in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes. **Project-Specific MM TCR-3:** Unanticipated Discovery of Human Remains and Associated Funerary or Ceremonial Objects: a. Native American human remains are defined in Public Resources Code section 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute. b. If Native American human remains and/or grave goods are discovered or recognized on the project site, then Public Resource Code section 5097.9 as well as Health and Safety Code Section 7050.5 shall be followed.	

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
			c. Human remains and grave/burial goods shall be treated alike per Public Resources Code section 5097.98(d)(1) and (2). d. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods. e. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.	
TCR-2 Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is 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)?		Potentially significant	**GPU PEIR MM CUL-6** and **Project-Specific MM TCR-1** through **MM TCR-3**, listed previously.	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Cumulative		Potentially significant	**GPU PEIR MM CUL-6**, and **Project-Specific MM TCR-1** through **MM TCR-3**, listed previously.	Less than significant
UTILITIES AND SERVICE SYSTEMS				
U-1 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?	**RR U-1:** Any sewer utility infrastructure improvement associated with development under the General Plan Update shall be designed, constructed, and operated in accordance with Chapter 8, Article III, and Chapter 39, Article III, and of the Santa Ana Municipal Code. **RR U-2:** Any new connections to the Orange County Sanitation District system or expansion of a previous connection shall pay a capital facilities charge in accordance with Ordinance No. OCSD-40. **RR U-3:** Sewer utility infrastructure improvements associated with development under the General Plan Update shall be designed, constructed, and operated in accordance with the Orange County Sanitation District's Ordinance Nos. 25 and 48 and the wastewater discharge	Less than significant	No mitigation measures are required.	Less than significant
U-2 Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?		Less than significant	No mitigation measures are required.	Less than significant
U-3 Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition		Less than significant	No mitigation measures are required.	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
to the provider's existing commitments?	requirements of the National Pollutant Discharge Elimination System permit (Order No. R8-2012-0035). **RR U-5:** Any development implemented under the General Plan Update shall abide by the water conservation and efficiency requirements detailed in Chapter 8, Article XVI, Chapter 39, Article VI and Chapter 41, Article XVI of the Santa Ana Municipal Code. **RR U-6:** Water connection fees shall be paid in accordance with Chapter 39, Article II of the City's Municipal Code and plumbing shall be installed in compliance with Chapter 8, Article III. **RR U-7 (Water):** Water Supply Assessments and written verifications shall be prepared for any development implemented under the General Plan Update that meets the criteria of Senate Bill 610 or Senate Bill 221. **RR U-7 (Solid Waste):** All development pursuant to the General Plan Update shall comply with Section 4.408 of the 2019 California Green			
U-4 Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?		Less than significant	No mitigation measures are required.	Less than significant
U-5 Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?		Less than significant	No mitigation measures are required.	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
	Building Code Standards, which requires new development projects to submit and implement a construction waste management plan in order to reduce the amount of construction waste transported to landfills. **RR U-8 (Stormwater):** Storm drain shall be installed in compliance with Chapter 8, Article III, of the Santa Ana Municipal Code. **RR U-8 (Solid Waste):** All development pursuant to the General Plan Update shall store and collect recyclable materials in compliance with Assembly Bill 341. Green waste will be handled in accordance with Assembly Bill 1826. **RR U-10**: New buildings are required to achieve the current California Building Energy and Efficiency Standards (Title 24, Part 6) and California Green Building Standards Code (CALGreen) (Title 24, Part 11). **RR U-11**: All new appliances would comply with the 2012 Appliance Efficiency Regulations (Title 20, California			

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
	Code of Regulations, Sections 1601 through 1608). **RR HYD-1:** All development pursuant to the General Plan Update shall comply with the requirements of the Construction General Permit (Order No. 2012-0006-DWQ) for stormwater discharges associated with construction activity. Compliance requires filing a Notice of Intent (NOI), a Risk Assessment, a Site Map, a Stormwater Pollution Prevention Plan (SWPPP) and associated best management practices (BMPs), an annual fee, and a signed certification statement. **RR HYD-4**: All development pursuant to the General Plan Update shall comply with the requirements of the Orange County MS4 Permit (Order R8-2009-0030, NPDES No. CAS618030, as amended by Order No. R8-2010-0062). The MS4 Permit requires new development and redevelopment projects to: • Control contaminants into storm drain systems			

Table 1-1: Summary of Project Impacts and Mitigation Measures

Environmental Threshold	Applicable Regulatory Requirements	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
	• Educate the public about stormwater impacts • Detect and eliminate illicit discharges • Control runoff from construction sites • Implement best management practices and site-specific runoff controls and treatments for new development and redevelopment.			
Cumulative		Less than significant	No mitigation measures are required.	Less than significant

1.10 SUMMARY OF ALTERNATIVES

Pursuant to State CEQA Guidelines Section 15126.6(a), an EIR shall 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 of the significant effects of the project and evaluate the comparative merits of the alternatives. Chapter 6, Alternatives, of this Supplemental EIR analyzes the range of reasonable alternatives to the proposed project. The alternatives that are analyzed in detail in Chapter 6 are summarized below.

1.10.1 Alternative 1: No Project/No Build Alternative

Under this alternative, no new development would occur on the project site, and the site would remain in its existing condition as the South Coast Plaza Village with commercial retail uses, surface parking, and landscaping. In this alternative scenario, the seven existing buildings are assumed to be fully operational as a shopping plaza with multiple retail uses, a restaurant, and a movie theater.

In accordance with the State CEQA Guidelines, the No Project/No Build Alternative for a development project on an identifiable property consists of the circumstance under which the proposed project does not proceed. State CEQA Guidelines Section 15126.6(e)(3)(B) states that, "In certain instances, the no project alternative means 'no build' wherein the existing environmental setting is maintained." Accordingly, Alternative 1: No Project/No Build provides a comparison between the environmental impacts of the proposed Project in contrast to the result from not approving, or denying, the proposed Project. Thus, this alternative is intended to meet the requirements of State CEQA Guidelines Section 15126.6(e) for evaluation of a no project alternative.

As detailed in Chapter 6, Alternatives, the No Project/No Build Alternative would result in reduced impacts related to construction and operation compared to the proposed project and would not require the mitigation measures as detailed in Chapter 4. However, the benefits of the proposed project would also not occur, including implementation of the GPU South Bristol Street Focus Area objectives; improvements to roadway, pedestrian, bicycle infrastructure; LID-compliant infrastructure improvements; provision of housing within a TPA; and improvements to the jobs/housing balance. Generally, the impacts of the No Project/No Build Alternative would be less in severity than those of the proposed project and would not require implementation of mitigation measures; however, this alternative would not implement the benefits resulting from the proposed project. In addition, the No Project/No Build Alternative would not meet any of the project objectives.

1.10.2 Alternative 2: Reduced Project Alternative

The Reduced Project Alternative would reduce the commercial square footage, change the residential mix to reduce the number of residents, and remove the office uses from the mixed use development to minimize operational impacts to volatile organic compounds associated with area sources and construction-related impacts related to ground disturbance. Alternative 2 would reduce the total commercial square footage to 50,000 square feet, provide 1,433 standard residential units and 150 senior (age restricted) living units, and provide 7.5 acres of publicly accessible parks/recreation facilities and open space. To support the Reduced Project Alternative's mix of uses, the total amount of parking stalls would be reduced to 2,296 stalls. Maximum excavation depths would reach 14 feet below ground surface (bgs) for one level of subterranean parking under this alternative.

As detailed in Chapter 6, Alternatives, the Reduced Project Alternative would result in a reduced magnitude of construction-related impacts to air quality, GHG emissions, and noise. However, as with the proposed project, impacts would still be less than significant or less than significant with mitigation, which would be similar to those of the proposed project due to the similar types of construction activities.

During operation, the Reduced Project Alternative would be expected to result in reduced emissions of criteria pollutants and GHGs, energy consumption, vehicle miles traveled, overall population, and demand for public services, parks, and utility services. The overall reduction in volume of these factors would occur primarily due to the reduced commercial square footage elimination of office uses, and the replacement of some standard residential units with senior living residences. The Reduced Project Alternative would provide 7.5 acres of publicly accessible parks/recreation facilities and open space, resulting in a slightly higher recreation-to-resident ratio of 2.1 acres per 1,000 residents than the proposed project. However, significant and unavoidable impacts to recreation would remain. Although the volume of impacts would be reduced by the Reduced Project Alternative in comparison to the proposed project, the Reduced Project Alternative would not eliminate the significant and unavoidable recreation impacts or the less-than-significant impacts of the proposed project. Furthermore, the Reduced Project Alternative would meet the project objectives, but not to the same extent as the proposed project.

1.10.3 Alternative 3: Reduced Project with No Subterranean Parking Alternative

The Reduced Project with No Subterranean Parking Alternative would reduce residential and commercial uses and remove office space to minimize operational impacts to volatile organic compounds associated with area sources and avoid the construction-related impacts related to ground disturbance required for subterranean parking (i.e., excavations below 14 bgs). Alternative 3 would reduce the number of residential units to 1,000 units, the total commercial area to 25,000 square feet, and the publicly accessible parks/recreation facilities and open space to 6.8 acres. This alternative would not include the proposed subterranean parking level and associated excavation activities and would reduce the overall length and magnitude of construction phasing. Alternative 3 would construct two surface parking lots and a three-level parking garage in addition to the podium parking levels within the residential buildings. To support Alternative 3, a parking garage would be added to Block D (located in the northern central portion of the project site), and surface parking would be added to Blocks F and H (located in the eastern central portion and the center of the project site, respectively).

The Reduced Project with No Subterranean Parking Alternative would result in a reduced magnitude of impacts related to construction activities and resulting area and depth of ground disturbance. As such, construction impacts related to air quality, cultural resources, geology and soils, GHG emissions, noise, and tribal cultural resources would be reduced. However, as with the proposed project, impacts would still be less than significant or less than significant with mitigation, but residual impacts would be less when compared to those of the proposed project.

During operation, the Reduced Project with No Subterranean Parking Alternative would be expected to result in reduced emissions of criteria pollutants and GHGs, energy consumption, vehicle miles traveled, overall population, and demand for public services and utility services. The Reduced Project with No Subterranean Parking Alternative would provide 6.8 acres of publicly accessible parks/recreation facilities and open space, resulting in a higher recreation-to-resident ratio of 2.8 acres per 1,000 residents than the proposed project. However, significant and unavoidable impacts to recreation would remain. Although the volume of impacts would be reduced by the Reduced Project with No Subterranean Parking Alternative in comparison to the proposed project, the Reduced Project with No Subterranean Parking Alternative would not

eliminate the significant and unavoidable recreation impacts or the less-than-significant impacts of the proposed project. Furthermore, the Reduced Project with No Subterranean Parking Alternative would not fully meet all of the project objectives.

1.10.4 Environmentally Superior Alternative

CEQA requires a lead agency to identify the "environmentally superior alternative" when significant environmental impacts result from a proposed project. The Environmentally Superior Alternative for the proposed project would be the No Project/No Build Alternative. Compared to the proposed project, the No Project/No Build Alternative would avoid all potential construction impacts, reduce many of the operational impacts, and would not be required to implement the mitigation measures related to air quality, cultural resources, geology and soils, noise, and tribal cultural resources. However, as discussed, the benefits of the proposed project would also not occur, including implementation of the GPU South Bristol Street Focus Area objectives; improvements to roadway, pedestrian, and bicycle infrastructure; infrastructure improvements in compliance with the CALGreen Code and LID requirements; provision of housing within a TPA; and improvements to the jobs/housing balance and potential to reduce VMT.

Additionally, State CEQA Guidelines Section 15126.6(3)(1) states:

> The "no project" analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

Therefore, pursuant to CEQA, because the No Project/No Build Alternative has been identified as the Environmentally Superior Alternative, the Environmentally Superior Alternative among the other alternatives would be the Reduced Project with No Subterranean Parking Alternative, which would involve redevelopment of the site with reduced multi-family residential units to 1,000 units, reduced retail square footage to 25,000 square feet, reduced publicly accessible parks/recreation facilities and open space to 6.8 acres, and the removal of office uses and subterranean parking, which would eliminate the need for extensive excavation activities and reduce the magnitude of construction phasing. The reduction or elimination of project components under this alternative would result in reduced impacts to operational air quality emissions, energy, GHG emissions, noise, population and housing, transportation, and demand for public services and utility services. The Reduced Project with No Subterranean Parking Alternative would still require mitigation measures during construction related to air quality, cultural resources, geology and soils, noise, and tribal cultural resources, though the residual impacts would be less than those of the proposed project.

Operation of the Reduced Project with No Subterranean Parking Alternative would still result in less-than-significant impacts that are similar when compared to the proposed project for hazards and hazardous materials, hydrology and water quality, and land use and planning. This alternative would also result in reduced operational air quality emissions, eliminating the need for the project specific MM AQ-1. The Reduced Project with No Subterranean Parking Alternative would provide 6.8 acres of publicly accessible parks/recreation facilities and open space, resulting in a recreation-to-resident ratio of 2.8 acres per 1,000 residents which is higher than the 1.2 ratio of the GPU PEIR but lower than the GPU's parkland standard of 3 acres per 1,000 residents. Thus, significant and unavoidable impacts to recreation would remain. Although the volume of impacts

would be reduced by the Reduced Project with No Subterranean Parking Alternative in comparison to the proposed project, the Reduced Project with No Subterranean Parking Alternative would not eliminate the significant and unavoidable recreation impacts or the less-than-significant impacts of the proposed project. The Reduced Project with No Subterranean Parking Alternative would provide fewer residential units, retail services, and no office uses, and thus would implement the GPU South Bristol Street Focus Area objectives and many of the SCAG policies related to high-density, infill development, and improvement of the job/housing balance at a lesser extent than the proposed project, resulting in greater impacts to land use and planning.

Overall, although the magnitude of impacts would be less under the Reduced Project with No Subterranean Parking Alternative in comparison to the proposed project, the Reduced Project with No Subterranean Parking Alternative would not eliminate the significant and unavoidable recreation impacts, the less-than-significant impacts of the proposed project, or the need for mitigation.

In addition, the Reduced Project with No Subterranean Parking Alternative would not fully meet all of the project objectives. As previously discussed, though the Reduced Project with No Subterranean Parking Alternative would transform the conventional auto-oriented shopping plaza with large surface parking areas to a mixed-use development, this alternative would not maximize the opportunities as described in the project objectives as there would be fewer retail services and park space, no office uses, and no subsurface shared parking areas. The reduced commercial and removal of office uses would result in a net decrease of jobs from existing conditions that would not fully maximize the economic opportunities of the project site as encouraged by the GPU. Overall, with the exception of a few project objectives, this alternative meets most of the project objectives, but not to the same extent as the proposed project.

Table 1-2: Summary Comparison of the Impacts of the Alternatives provides, in summary format, a comparison between the level of impacts for each alternative and the proposed project.

Table 1-2: Summary Comparison of the Impacts of the Alternatives

Impact Topic	GPU PEIR Impact	Project Impact	Alternative 1: No Project/ No Build Alternative	Alternative 2: Reduced Project Alternative	Alternative 3: No Subterranean Parking Alternative
Air Quality	S/U	LTS/M	Less (NI)	Less (LTS/M)	Less (LTS/M)
Cultural Resources	S/U	LTS/M	Less (NI)	Similar (LTS/M)	Less (LTS/M)
Energy	LTS	LTS	Less (NI)	Less (LTS)	Less (LTS)
Geology and Soils	LTS/M	LTS/M	Less (LTS)	Similar (LTS/M)	Less (LTS/M)
Greenhouse Gas Emissions	S/U	LTS	Similar (LTS)	Less (LTS)	Less (LTS)
Hazards and Hazardous Materials	LTS	LTS	Similar (LTS)	Similar (LTS)	Similar (LTS)
Hydrology and Water Quality	LTS	LTS	Similar (LTS)	Similar (LTS)	Similar (LTS)
Land Use and Planning	LTS	LTS	Greater (LTS)	Similar (LTS)	Similar (LTS)
Noise	S/U	LTS/M	Less (LTS)	Less (LTS/M)	Less (LTS/M)
Population and Housing	S/U	LTS	Less (NI)	Less (LTS)	Less (LTS)
Public Services	LTS	LTS	Less (NI)	Less (LTS)	Less (LTS)
Recreation	S/U	S/U*	Less (NI)	Similar (S/U*)	Less (S/U*)
Transportation	LTS	LTS	Similar (NI)	Less (LTS)	Less (LTS)
Tribal Cultural Resources	LTS/M	LTS/M	Less (NI)	Similar (LTS/M)	Less (LTS/M)
Utilities and Service Systems	LTS	LTS	Less (LTS)	Less (LTS)	Less (LTS)

Notes: LTS = Less than Significant; LTS/M = Less than Significant with Mitigation; NI = No Impact; S/U = Significant and Unavoidable

*Impacts do not increase the severity of the impacts identified in the GPU PEIR.

CHAPTER 2
INTRODUCTION

The City of Santa Ana (City) has prepared this Supplemental Environmental Impact Report (EIR) to the City's General Plan Update (GPU) Final Program EIR (GPU PEIR) (State Clearinghouse No. 2020029087), which was certified by the City on April 19, 2022.

This Supplemental EIR has been prepared by the City in conformance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.). CEQA applies to proposed projects initiated by, funded by, or requiring discretionary approvals from state or local government agencies. The proposed project constitutes a project as defined by CEQA (California Public Resources Code Section 21000 et seq.). State CEQA Guidelines Section 15367 states that a "Lead Agency" is "the public agency which has the principal responsibility for carrying out or approving a project." Accordingly, the City is the lead agency responsible for compliance with CEQA for The Village Santa Ana Specific Plan Project (project).

2.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT DOCUMENTATION

CEQA requires preparation of an EIR when there is substantial evidence supporting a fair argument that a proposed project may have a significant effect on the environment. The purpose of an EIR is to provide decision-makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. Additionally, the EIR process is intended to identify the ways that environmental damage can be avoided or significantly reduced; identify feasible mitigation measures and alternatives that might prevent significant, avoidable damage to the environment; and disclose to the public why a governmental agency approves a project if significant environmental effects are involved. This EIR provides information about the potential effects of the proposed project.

As provided in Section 15168 of the State CEQA Guidelines, a program EIR may be prepared on a series of actions that may be characterized as one large project and are related either: geographically; as logical parts of a chain of contemplated actions; in connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or as individual activities carried out under the same authority and having generally similar environmental effects that can be mitigated in similar ways.

Once a program EIR has been prepared, subsequent activities in the program must be evaluated to determine whether an additional CEQA document needs to be prepared. However, if the program EIR addresses the program's effects as specifically and comprehensively as possible, many subsequent activities could be found to be within the program EIR scope, and additional environmental documents may not be required (State CEQA Guidelines Section 15168[c]). When a program EIR is relied on for a subsequent activity, the lead agency must incorporate feasible mitigation measures and alternatives developed in the program EIR into the subsequent activities (State CEQA Guidelines Section 15168[c][3]). If a subsequent activity would have effects not within the scope of the program EIR, the lead agency must prepare an Initial Study leading to a Negative Declaration, Mitigated Negative Declaration, or an EIR. In which case, the program EIR still serves a valuable purpose as the first-tier environmental analysis.

The GPU PEIR is a Program EIR that examined the existing environment and the total scope of environmental effects that would occur as a result of buildout of the GPU land uses. The proposed project is a Specific Plan which is within the scope of the project that was evaluated in the GPU

PEIR; however, the proposed project may involve site-specific or development-specific environmental effects that are different from or more severe than the previously identified effects of the GPU PEIR. Thus, the City of Santa Ana has prepared this Supplemental EIR that evaluates the potential of the proposed project to result in new or substantially greater impacts than previously identified in the GPU PEIR.

2.1.1 Background for the GPU PEIR

The City of Santa Ana's GPU was adopted, and the GPU PEIR certified, in April 2022 and went into effect on May 26, 2022. The GPU provides long-term policy direction to guide the physical development, quality of life, economic health, and sustainability of the Santa Ana community through 2045, and provides comprehensive land use, housing, circulation and infrastructure, public service, resource conservation and public safety policies for the City. The GPU Land Use Element guides growth and development (e.g., infill development, redevelopment, use and revitalization/restoration) by designating land uses.

The City's GPU Land Use Element designates the project site as District Center-High (DC-5) within the South Bristol Street Focus Area. Development in the DC-5 designation is intended to provide urban retail, residential, mixed-use, and employment centers with an intensity of up to 5.0 floor area ratio and/or 125 dwelling units per acre. Mixed-use projects may be vertical or horizontal. The DC-5 designation also has a maximum height of 25 stories.

The adoption of the City's GPU with new focus areas provides the foundation to transform the South Bristol Street Focus Area. Improvements are envisioned to include:

- New developments that will establish vibrant public outdoor space appropriately scaled to the size and type of project.
- Building design that should be dynamic and strong, creating a distinct impression.
- Office and mixed-use spaces of similar scale to those south of Sunflower Avenue.

Table 1-5 of the GPU PEIR summarizes the environmental impacts that would result from implementation of the GPU, which include the following:

Significant and Unavoidable Impacts: The GPU PEIR identified significant and unavoidable impacts in the following environmental topics:

- Air Quality
- Cultural Resources
- Greenhouse Gas Emissions
- Noise
- Population and Housing
- Recreation

Less Than Significant Impacts with Mitigation Incorporated: The GPU PEIR identified less than significant impacts with incorporation of mitigation measures in the following environmental topics:

- Biological Resources
- Geology and Soils
- Tribal Cultural Resources

Less Than Significant Impacts: The GPU PEIR identified less than significant impacts in the following environmental topics:

- Aesthetics
- Energy
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Public Services
- Transportation
- Utilities and Service Systems

No Impact: The GPU PEIR determined that no impact would occur in the following environmental topics:

- Agricultural and Forestry Resources
- Wildfire

2.1.2 Basis for a Supplemental EIR

Pursuant to the State CEQA Guidelines, a lead agency must prepare a Subsequent EIR for a previously-certified EIR when any of the following criteria set forth in the State CEQA Guidelines Section 15162(a)(1-3) would occur:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance, which was not known or could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:
    a. The project will have one or more significant effects not discussed in the previous EIR;
    b. Significant effects previously examined will be substantially more severe than shown in the previous EIR;
    c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
    d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the proposed proponents decline to adopt the mitigation measure or alternative.

Section 15163 of the State CEQA Guidelines states that a "Lead or Responsible Agency may choose to prepare a supplement to an EIR rather than a subsequent EIR if:

1. Any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and
2. Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.

As detailed in Chapter 3, Project Description, the proposed project is a Specific Plan that would allow for redevelopment of the approximately 17.2-acre site located on the northeast corner of West Sunflower Avenue and Bear Street, transected by South Plaza Drive. In total, the proposed project would include up to 1,583 residential units (encompassing approximately 1,850,000 square feet of building space), 80,000 square feet of retail space, 300,000 square feet of office space, and approximately 7.5 acres of common open space.

Given that the land uses, density, and intensity of the proposed project are consistent with those considered for the project area as designated in the GPU, the proposed Village Santa Ana Project is within the scope of the project that was evaluated in the GPU PEIR[1] and most of the environmental impacts of the proposed project are within the scope of the impacts analyzed in the GPU PEIR. However, this Supplemental EIR evaluates the potential site-specific and project-level impacts of the proposed project to address the potential for new or substantially greater impacts than previously identified in the GPU PEIR. It is also important to note that the buildout scenario evaluated in the GPU PEIR and the corresponding impacts are not caps or limits on the maximum development that can occur within the City or within any particular City focus area. Rather, in cases where the proposed project causes or contributes to an exceedance of the conditions described in the GPU PEIR, this Supplemental EIR provides the appropriate additional analysis.

This Supplemental EIR should be considered in conjunction with the GPU PEIR, as it contains the information necessary to make the GP PEIR adequate for the proposed project. In accordance with State CEQA Guidelines Sections 15150 and as further discussed in Section 2.6, Incorporation by Reference, below, the GPU PEIR is incorporated by reference into this Supplemental EIR.

Pursuant to State CEQA Guidelines Sections 15168 and 15152, this Supplemental EIR tiers from the GPU PEIR. The GPU PEIR is available for examination at https://www.santa-ana.org/documents/volume-ii-updated-draft-peir/ and at Santa Ana City Hall, 20 Civic Center Plaza, Santa Ana, CA 92701 during normal business hours.

2.2 SUPPLEMENTAL EIR SCOPE AND CONTENT

2.2.1 Environmental Setting and Baseline

The environmental setting is generally defined as the existing conditions at the time the CEQA analysis begins (State CEQA Guidelines Section 15125). In most cases, this forms the baseline that the impact analysis will use as its starting point. However, when the project is within the scope of a Program EIR (such as the GPU PEIR), the effective baseline is the previously approved and analyzed project for which the Program EIR was certified (Sierra Club v. City of Orange [2008] 163 Cal.App.4th 523, 543). Therefore, for the proposed project, the previous project is the GPU,

[1] See Section 4.8, Land Use and Planning, of this Supplemental EIR for a detailed analysis of the proposed project's consistency with the GPU.

for which the EIR commenced in February 2020 with the preparation of the Notice of Preparation (NOP).

The State CEQA Guidelines and case law recognize that the date for establishing an environmental baseline cannot be rigid (State CEQA Guidelines Sections 15146, 15151, and 15204). The intent of this Supplemental EIR is to provide a reasonably conservative analysis that identifies the reasonable maximum potential impact. Thus, this Supplemental EIR provides both baseline conditions from the GPU PEIR (i.e., 2020) and current conditions, such as the most recent available air quality monitoring data provided in Section 4.1, Air Quality, the noise measurements identified in Section, 4.9, Noise, and existing traffic conditions identified in Section 4.13, Transportation.

2.2.2 Determination of Impacts

The City has determined that a Supplemental EIR should be prepared for the proposed project.

Topics requiring a detailed level of analysis evaluated in this Supplemental EIR have been identified based upon the written comments on the NOP and a review of the proposed project by the City of Santa Ana. The City determined through the initial review process that impacts related to the following topics would be potentially significant and require a detailed level of analysis in this Supplemental EIR.

- Air Quality
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems

Effects found not to be significant are discussed in Chapter 5, Other CEQA Considerations, of this Supplemental EIR. As described in Section 2.3 below, it was determined that the project's effects related to the environmental topics listed below would not be significant based on the project's environmental setting and development characteristics. No new significant impacts and no substantial increase in the severity of previously identified impacts of the GPU PEIR associated with the proposed project would occur. Likewise, there would be no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures for the following environmental topics:

- Aesthetics
- Agriculture and Forestry Resources
- Biological Resources
- Mineral Resources
- Wildfire

2.3 LEAD, RESPONSIBLE, AND TRUSTEE AGENCIES

The State CEQA Guidelines defines the "lead agency" as the public agency which has the principal responsibility for carrying out or approving a project (State CEQA Guidelines Section 15367). The lead agency for the proposed project is the City of Santa Ana. The approving governing body is the City's City Council.

A "responsible agency" is a public agency which proposes to carry out or approve a project, for which a lead agency is preparing or has prepared an EIR or Negative Declaration. For the purposes of CEQA, this includes any public agencies other than the lead agency which have discretionary approval over the project (State CEQA Guidelines Section 15381). The Airport Land Use Commission and Orange County Transportation Authority are included as responsible agencies that may have jurisdiction over some aspects of the proposed project.

A "trustee agency" is a state agency with jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California (Section 15386). There are no trustee agencies for the proposed project as there are no state parks, state land or water reserves, or other state owned or maintained lands or natural resources on or adjacent to the project site.

2.4 ENVIRONMENTAL REVIEW PROCESS

2.4.1 Notice of Preparation

Pursuant to Public Resources Code Section 21080.4 and State CEQA Guidelines Section 15082, the City, as the lead agency, prepared an NOP to solicit comments related to the scope and content of the Supplemental EIR. The 30-day public comment period for the NOP was from November 3, 2023 to December 4, 2023. The NOP requested members of the public and public agencies to provide input on the scope and content of environmental impacts that should be included in the Supplemental EIR being prepared. The NOP and written comments on the NOP are contained in Appendix A, Notice of Preparation and Scoping Comments, of this Supplemental EIR and the comments are summarized in Table 2-1, which also includes a reference to the relevant EIR section(s).

Table 2-1: Summary of NOP/Initial Study Comment Letters

Commenter	Comment Letter Summary	Relevant EIR Section
State Agencies		
Department of Conservation, California Geological Survey	The letter recommends addressing the topics of liquefaction hazards and ground shaking hazards as they related to the design of the proposed project.	4.4, Geology and Soils

Table 2-1: Summary of NOP/Initial Study Comment Letters

Commenter	Comment Letter Summary	Relevant EIR Section
Department of Transportation	The letter states several recommendations, including an operational and safety analysis for new trips added to Bear Street at SR-73, using the Governor's Office of Planning and Research Guidance for vehicle miles traveled, and considering linkage of the proposed Class I bikeway with the existing Class I bikeway north of MacArthur Boulevard. The letter also recommends strategies to maximize the use of existing and future transit opportunities, such as seeking opportunities to partner with transit agencies, encouraging transit use amongst project residents/visitors/workers, considering a shared drop-off location for delivery, providing adequate wayfinding signage, amongst others. The letter also supports the inclusion of Complete Streets facilities, recommends a discussion of racial equity, and informs the reader that any work performed within a Caltrans right-of-way will require approval of an encroachment permit.	4.13, Transportation
Native American Heritage Commission	The letter informs the reader of tribal consultation requirements as part of Assembly Bill 52 and Senate Bill 18 and summarizes both regulations. The letter recommends early consultation with California Native America tribes that are affiliated with the project area.	4.14, Tribal Cultural Resources
Local Agencies		
City of Irvine	The letter recommends the preparation of a traffic study using the City of Irvine's performance criteria to address vehicle miles traveled impacts and potential level-of-service impacts.	4.13, Transportation
Orange County Sanitation District	The letter states that the Orange County Sanitation District does not allow parking structure drains to be connected to a sewer or private connections to the District's trunk connection. The letter suggests the review of the project's civil engineering plans for the proper coordination with the District.	4.15, Utilities and Service Systems
Orange County Transportation Authority	The letter corrected transit information provided in the Specific Plan. The letter also requests submittal of plans to the Orange County Transportation Authority and prior notification of any anticipated temporary bus closures.	4.13, Transportation
Santa Ana Unified School District	The letter requests the continued inclusion for notifications of the EIR process.	Other

Table 2-1: Summary of NOP/Initial Study Comment Letters

Commenter	Comment Letter Summary	Relevant EIR Section
South Coast Air Quality Management District (South Coast AQMD)	This letter requests the submittal of the Supplemental EIR documents including appendices and technical documents for South Coast AQMD review. The letter recommends including discussion of any and all new stationary and portable equipment requiring South Coast AQMD air permits. The letter recommends using the South Coast AQMD's CEQA Air Quality Handbook and website as guidance for the air quality and greenhouse gas analysis, as well as CalEEMod for estimation of emissions. The letter states the EIR should identify adverse air quality impacts resulting from all phases of the project and direct and indirect sources. The letter also recommends the preparation of a mobile source health risk assessment if applicable, and health risk reduction strategies. The letter recommends several sources to review for the impact analysis and applicable mitigation measures.	4.1, Air Quality and 4.5, Greenhouse Gas Emissions
Individuals		
Pete	The letter requests the proposed project consider parking and traffic impacts, especially due to existing issues in the neighborhood with overcrowding and gentrification. The letter states the project does not have adequate parking and public transit provided by the Orange County Transportation Authority would not be enough to serve the project.	4.13, Transportation

2.4.2 Public Scoping Meeting

The City of Santa Ana held a scoping meeting for the proposed project to solicit oral and written comments from the public and public agencies. The public scoping meeting was held at the McFadden Institute of Technology located at 2701 South Raitt Street, at 6:00 p.m. on November 15, 2023. Two comment cards were received during the scoping meeting. The comments received at the meeting are summarized in Table 2-2 and included in Appendix A, Notice of Preparation and Scoping Comments, of this Supplemental EIR.

Table 2-2: Summary of NOP/Initial Study Scoping Meeting Comments

Commenter	Comment Letter Summary	Relevant EIR Section
Individuals		
Anonymous	The comment recommends traffic and noise testing and raises concerns of construction debris potentially impacting walking space.	4.9, Noise and 4.13, Transportation
Anonymous	The comment recommends a stronger plan to study impacts related to water resources, electrical resources, and traffic. The comment recommends more frequent communication with the public to inform of the EIR process.	4.3, Energy; 4.7, Hydrology and Water Quality; and 4.13, Transportation

2.4.3 Public Review of the Draft Supplemental EIR

The City of Santa Ana filed a Notice of Completion with the Governor's Office of Planning and Research, State Clearinghouse, indicating that this Draft Supplemental EIR has been completed and is available for review. A Notice of Availability of the Draft Supplemental EIR was published concurrently with distribution of this document and posted at the Orange County Clerk's office. The Draft Supplemental EIR is being circulated for review and comment by the public and other interested parties, agencies and organizations for a minimum of 45 days from April 17, 2025 to June 2, 2025 in accordance with State CEQA Guidelines Sections 15087 and 15105. During the 45-day review period, the Draft Supplemental EIR is available for public review digitally on the City's website: https://www.santa-ana.org/the-village-santa-ana-specific-plan/ or physically at the following locations:

City of Santa Ana, Planning Division Counter
20 Civic Center Plaza, M-20
Santa Ana, CA 92701

Southwest Senior Center
2201 West McFadden Ave
Santa Ana, CA 92704

Written comments related to environmental issues in the Draft Supplemental EIR should be submitted in writing by 5:00 p.m. on June 2, 2025 to:

Jerry C. Guevara, AICP, Senior Planner
City of Santa Ana, Planning and Building Agency
P.O. Box 1988 (M-20)
Santa Ana, CA 92702
Email: Jguevara@santa.ana.org

2.4.4 Final Supplemental EIR

Upon completion of the minimum 45-day review period for the Draft Supplemental EIR, written responses to all comments related to environmental issues will be prepared and incorporated into a Final Supplemental EIR. The comments on the Draft Supplemental EIR, and their responses, will be included in the Final Supplemental EIR for consideration by the City, as well as any responsible agencies per CEQA. The Final Supplemental EIR may also contain corrections and additions to the Draft Supplemental EIR, and other information relevant to the environmental issues associated with the proposed project.

2.5 ORGANIZATION OF THIS SUPPLEMENTAL EIR

This Supplemental EIR is organized into the following chapters:

- **Chapter 1, Executive Summary**: provides an overview of the information provided in detail in subsequent chapters. It consists of an introduction; a brief description of the proposed project; a discussion of issues raised by the public and agencies relative to the project construction and operations; and a table that summarizes the potential environmental impacts in each issue area, the significance determination for those impacts, mitigation measures, and significance after mitigation.
- **Chapter 2, Introduction**: provides a description of the purpose, scope, and process of the EIR, and a description of the organization of the Supplemental EIR.
- **Chapter 3, Project Description**: provides a description of the proposed project, including project objectives. This chapter also includes a description of the public agency actions related to the proposed project.

- **Chapter 4, Environmental Impact Analysis**: analyzes the potential environmental effects of implementing the proposed project under each of the 15 environmental issue areas. Each environmental issue area includes a discussion of the regulatory requirements, existing environmental setting, methodology and approach of the analysis, thresholds of significance, impact analysis comparing the project's impacts with the impacts identified in the GPU PEIR, mitigation measures including any applicable GPU PEIR mitigation measures, level of significance after mitigation, and cumulative impacts.
- **Chapter 5, Other CEQA Considerations**: presents the other mandatory CEQA sections, including significant unavoidable impacts, significant and irreversible environmental changes, and growth-inducing impacts.
- **Chapter 6, Alternatives**: describes and evaluates the comparative merits of a reasonable range of project alternatives that would feasibly attain most of the basic objectives of the proposed project and avoid or substantially lessen potentially significant project-related impacts. This chapter also describes the analysis and rationale for selecting the range of alternatives discussed in the Supplemental EIR and identifies the alternatives considered that were rejected from further detailed analysis during the planning process. Chapter 5 also includes a discussion of the environmental effects of the No Project Alternative and identifies the environmentally superior alternative.
- **Chapter 7, EIR Preparers**: identifies those persons responsible for the preparation of this Supplemental EIR.
- **Chapter 8, References**: provides a bibliography of reference materials used in the preparation of this Supplemental EIR.

2.6 INCORPORATION BY REFERENCE

In accordance with State CEQA Guidelines Section 15150 and to reduce the size of the report, the following documents are hereby incorporated by reference into this Supplemental EIR and are available for public review at the City of Santa Ana, Planning Division, 20 Civic Center Plaza, Santa Ana, CA 92701. A brief summary of the scope and content of these documents is provided below.

City of Santa Ana General Plan Update 2022: The City of Santa Ana General Plan provides a general, comprehensive, and long-range guide for community decision-making. The General Plan consists of a vision statement, 5 core values, and 12 elements. Each element of the General Plan addresses a certain aspect of the City's growth and development. The individual elements identify goals and policies for existing and future conditions within the City. The following elements comprise the City's General Plan:

- Community Element
- Mobility Element
- Economic Prosperity Element
- Public Services Element
- Conservation Element
- Open Space Element
- Noise Element
- Safety Element
- Land Use Element
- Historic Preservation Element
- Urban Design Element
- Housing Element

The General Plan is utilized throughout this document as a fundamental planning document governing development within the City. Background information and policy information from the General Plan is cited in various sections and chapters of this Supplemental EIR.

Santa Ana General Plan Update Program Environmental Impact Report: The GPU PEIR is the public document designed to provide decision-makers and the public with an analysis of the environmental effects of the GPU, to indicate possible ways to reduce or avoid environmental damage, and to identify alternatives to the project. This Supplemental EIR incorporates by reference the Final Recirculated PEIR (October 2021) which reflects the revisions to the original PEIR (Draft August 2020 and Final November 2020) and the Recirculated PEIR (Draft August 2021). The project's impacts are compared against the impacts identified in the GPU PEIR to determine:

- Whether substantial changes are proposed for the project that would involve new significant impacts or substantially more severe impacts than those analyzed in the GPU PEIR (State CEQA Guidelines Section 15162(a)(1)).
- Whether there are any new or changed circumstances under which the project is undertaken that would involve new significant impacts or substantially more severe impacts than those analyzed in the GPU PEIR (State CEQA Guidelines Section 15162(a)(2)).
- Whether there is any new information of substantial importance that was not and could not have been known at the time of certification of the GPU PEIR that would require new analysis or verification involving new significant impacts or substantially more severe impacts than those analyzed in the GPU PEIR, or feasible or new mitigation measures or alternatives (State CEQA Guidelines Section 15162(a)(3)).

CHAPTER 3
PROJECT DESCRIPTION

3.1 PROJECT LOCATION AND SETTING

The proposed Village Santa Ana Specific Plan Project (proposed project or The Village) is located along the southern edge of the City of Santa Ana, adjacent to the City of Costa Mesa. Regionally, the site can be accessed from Interstate 405 (I-405) via the Bristol Street exit or from State Route 73 (SR-73) via the Bear Street exit.

The project site is approximately 17.2 acres and located on the northeast corner of West Sunflower Avenue and Bear Street, transected by South Plaza Drive. Access is provided to the site from three public roads: Sunflower Avenue, Bear Street, and South Plaza Drive. The project site is currently occupied by the South Coast Plaza Village commercial center on both sides of South Plaza Drive which consists of approximately 164,049 square feet of retail shops and restaurants, offices, and the Regency Theatres cinema building. The property also provides surface parking, a variety of trees and a half-acre landscaped lawn area.

Surrounding properties include South Coast Plaza, to the south across Sunflower Avenue in the City of Costa Mesa; the multi-family housing communities of Versailles on the Lake and St. Albans to the north; a retail shopping center to the east; and the Village Creek condominium community to the west across Bear Street in the City of Costa Mesa. The project site is located within 2 miles of the John Wayne Airport (SNA), approximately 1.2 nautical miles northwest of the airport. Figure 3-1 shows the regional location of the project and Figure 3-2 shows the project location and surrounding uses.

3.2 GENERAL PLAN AND ZONING

The Golden City Beyond Santa Ana General Plan Update (GPU) is the current general plan in place, adopted on April 19, 2022, and effective May 26, 2022. The GPU sets forth the City's long-range planning policies that reflect the aspirations and values of residents, landowners, businesses, and organizations within the community through 2045. The City Council and Planning Commission use the GPU when considering land use and planning-related decisions, and City staff use the GPU in administering land use and development activities. The GPU is a comprehensive document that addresses a wide range of issues that affect the City, including community, economic prosperity, mobility, public services, conservation, noise, open space, safety, land use, historic preservation, housing, and urban design.

3.2.1 General Plan Land Use Designation

The City's GPU Land Use Element designates the project site as District Center-High (DC-5) within the South Bristol Street Focus Area. Development in the DC-5 designation is intended to provide urban retail, residential, mixed-use, and employment centers with an intensity of up to 5.0 floor area ratio and/or 125 dwelling units per acre. Mixed-use projects may be vertical or horizontal. The DC-5 designation also has a maximum height of 25 stories. Figure 3-3 shows the GPU land uses for the project site.

The adoption of the City's GPU with new focus areas provides the foundation to transform the South Bristol Street Focus Area. Improvements are envisioned to include:

- New developments that will establish vibrant public outdoor space appropriately scaled to the size and type of project.
- Building design that should be dynamic and strong, creating a distinct impression.
- Office and mixed-use spaces of similar scale to those south of Sunflower Avenue.

3.2.2 Zoning

The project site is zoned as Specific Development Plan No. 48 (SD-48) which was adopted in 1989 and was last amended in 1997. Figure 3-4 shows the existing zoning designation for the project site.

The Village Santa Ana Specific Plan would replace SD-48 as the zoning for The Village, which contains the proposed development standards, permitted uses and administrative processes for future development at the project site.

3.3 PROJECT OBJECTIVES

State CEQA Guidelines Section 15124(b) (Title 14, California Code of Regulations [CCR]) requires that the description of the project shall contain a statement of objectives sought by the proposed project. The project objectives have been developed to incorporate the GPU objectives and vision, including the GPU South Bristol Street Focus Area objectives. The following are the proposed Village Santa Ana project objectives:

- Implements the vision and objectives established in the City of Santa Ana General Plan for the South Bristol Street Focus Area as the City's southern gateway and part of the South Coast Metro area by creating opportunities to transform auto-oriented shopping plazas to walkable, bike-friendly, and transit-friendly urban villages that incorporate a mix of high-intensity office and residential living with experiential commercial uses. The following are based on the South Bristol Street Focus Area objectives:
    - Capitalizes on the success of the South Coast Metro area;
    - Introduces mixed-use urban villages and encourage experiential commercial uses that are more walkable, bike friendly, and transit oriented; and,
    - Provides for mixed-use opportunities while protecting adjacent, established low density neighborhoods.
- Fosters a neighborly environment where residents can live, work, and recreate in a vibrant village community.
- Anchors Santa Ana's South Bristol Street Focus Area as envisioned by the City, which is to transform conventional auto-oriented shopping plazas into dynamic nodes of activity that blend healthy living, working, shopping, and dining in a contemporary village environment.
- Captures Orange County's indoor-outdoor lifestyle through attention to detail in the design of buildings, selection of materials, infusion of nature in outdoor spaces, and the activities offered in the Village.
- Builds on the foundation of this dynamic area through new experiences in food, fitness, and artisan retail.
- Complements the successful South Coast Metro area with a diversity of new housing in a jobs-rich environment.

- Attracts the innovative and start-up culture of Orange County and provides thoughtfully designed spaces to create and showcase new offerings.
- Complements and does not compete with the emerging business environment of Downtown Santa Ana.
- Allows for the flexible redevelopment of the underutilized project site to provide a balanced mix of residential, retail, recreation, and office uses in the South Bristol Street Focus Area that integrate into the existing urban systems and provide a safe and attractive environment for living and working, as encouraged by the GPU.
- Develops high quality residential spaces that reflect modern lifestyles, while responding to the vision of the GPU to help bring higher density housing into a jobs-rich area of the City planned for growth, to facilitate balancing the City's jobs-housing ratio.
- Provides a positive contribution to the local economy through new capital investment, the creation of new jobs, development of more commercial opportunities, attraction of economic activity, and the expansion of the tax base.
- Enhances alternative transportation activity by creating a walkable and bikeable mixed-use development that links with existing facilities and transit services to encourage non-automotive travel within the Specific Plan area and the local community.
- Improves existing infrastructure to support the Village Santa Ana Specific Plan consistent with the General Plan conditions.
- Provides a project that contributes to the creation of a vibrant urban core for the City by providing vibrant and attractive community amenities, recreational and open space areas, and gathering spaces that are directly accessible to residents and the community, and takes advantage of the site's location within the South Coast Metro area.
- Provides on-site open space and community-serving recreational amenities recognizing that this area of the City is currently identified as park-deficient by the GPU.
- Provides community benefits commensurate with the Specific Plan development proposal including public open space onsite and locations for public community events, as well as streetscape improvements along the project site frontages of Sunflower Avenue and Bear Street.

3.4 EXISTING LAND USES

The project site comprises seven parcels on approximately 17.2 acres which are currently developed with approximately 164,049 square feet of existing commercial retail uses. Table 3-1 and Figure 3-2 provide further details of the existing land uses for the project site.

Table 3-1: Project Site Information and Existing Uses

Assessor Parcel Number	Existing Use/Tenant	Acres
412-131-10	Regency Theater	0.8
412-131-20	Landscaped Lawn Area	0.5
412-131-21	Surface Parking	1.9
412-451-01	Surface Parking	1.6
412-451-02	Multiple Retail Units	4.7
412-451-03	Multiple Retail Units	7.3
412-451-04	Morton's Steakhouse	0.4
	Total:	**17.2**

Source: Placeworks, 2023, The Draft Village Santa Ana Specific Plan, available at: https://storage.googleapis.com/proudcity/santaanaca/uploads/2023/08/23.08.07-The-Village-Santa-Ana-Specific-Plan-City-of-Santa-Ana-Compressed.pdf.

Table 3-2 shows the existing land uses, jurisdictions, general plan designations, and zoning of the project site and surrounding sites. Refer to Figures 3-3 and 3-4 for the existing general plan and zoning designations, respectively.

Table 3-2: Current Land Uses, General Plan Designations and Zoning

Direction	Existing Land Use	Jurisdiction	General Plan Land Use Designation	Zoning
Project Site	Commercial	Santa Ana	District Center High (DC-5)	Specific Development (SD-48)
North	Multi-family Residential	Santa Ana	Medium Density Residential (MR-15)	Suburban Apartment (R4)
East	Commercial	Santa Ana	District Center High (DC-5)	Commercial Residential (CR), General Commercial (C2)
South	Commercial	Costa Mesa	Regional Commercial	Planned Development Commercial (PDC)
West	Multi-family Residential	Costa Mesa	Medium Density Residential	Multiple-Family Residential, Medium Density (R2-MD)

Sources: City of Santa Ana, 2022, General Plan Update Land Use Map, available at: https://www.santa-ana.org/documents/general-plan-april-2022/; City of Costa Mesa, 2016, General Plan Land Use Element and Zoning Map, available at: http://ftp.costamesaca.gov/costamesaca/generalplan2015-2035/adopted/02_FinalDraftLandUseElement_02-2016.pdf.

3.5 PROJECT CHARACTERISTICS

The Village Santa Ana Specific Plan Project would provide for redevelopment of the approximately 17.2-acre site with a mix of residential and commercial uses. The Village is proposed as a mixed-use community that allows for vertical and horizontal mixed uses across the site. The proposed project would include mixed-use commercial and residential, residential only, and commercial only buildings. A central commercial area would include a variety of commercial uses, such as restaurants, a market, and retail uses, with additional commercial uses extending through the ground floor of adjacent residential buildings. Stand-alone residential and mixed-use buildings would provide housing opportunities for residents in the City's South Bristol Street Focus Area.

In total, The Village would include up to 1,583 residential units (encompassing approximately 1,850,000 square feet of building space), 80,000 square feet of retail space, 300,000 square feet of office space, and approximately 7.5 acres of publicly accessible open space and common areas. The residential-only buildings are anticipated to include a range of heights from 5 to 25 stories and the commercial-only buildings are anticipated to include a range of heights from 1 to 20 stories. The mixed-use commercial/residential buildings are anticipated to include a range of heights from 5 to 25 stories. The Specific Plan includes a maximum height of 25 stories with a minimum of 1 story for commercial/office only buildings. No minimum height is included for residential or mixed-use buildings. Parking would be provided in tower and podium buildings and underground building levels with up to four levels below grade.

At full buildout, the project is anticipated to provide a combined 13.8 acres of public and private outdoor and recreation space. Approximately 7.5 acres will be publicly accessible open space and approximately 6.3 acres will be private outdoor and amenity spaces for residents. Public open spaces at The Village would consist of active spaces, outdoor seating, garden paseos, a fitness loop, recreational lawn, and the incorporation of architectural features. Private open space amenities include outdoor balconies and patios, pools and spas, outdoor kitchens, and communal gathering spaces (see Section 3.5.4, Open Space and Landscape Concept, below for details). The proposed project would also include roadway and streetscape modifications and improvements along Sunflower Avenue, Bear Street, and South Plaza Drive in addition to new access points throughout the project site (see Section 3.5.3, Circulation and Mobility, below for details). Figure 3-5, Conceptual Land Use Plan, shows the proposed land uses for the project and Figure 3-6, Conceptual Site Plan depicts how the plan would be implemented.

3.5.1 Project Construction

Construction of the proposed project is anticipated to begin January 2026 and could take up to 20 years to complete. Construction of the proposed project would be implemented in phases to reflect anticipated market conditions and to ensure that access, public facilities, and infrastructure connections are appropriately installed to serve the project. The Village would be developed in a series of five phases, which may overlap depending on the length of construction and market factors. Phase one is anticipated to include 360 residential units and 73,175 square feet of commercial space. Phases two and three would consist of further development of 513 and 177 residential dwelling units, respectively. Phase four would include the development of approximately 264 residential dwellings units, 300,000 square feet of office space, and the remaining 6,825 square feet of commercial space. The final phase five would complete the project with 269 residential units. Figure 3-7 shows the conceptual phasing plan of the project construction.

Demolition of the entire project site would occur during phase one of the construction period. Subsequently, the construction period for each phase would generally include excavation, grading, trenching, pile driving, installation of utilities, building construction, architectural coating, paving activities, and installation of landscaping and hardscape elements for the respective phase. The maximum excavation would reach approximately 52 feet below grade where up to four levels of subterranean parking is proposed.

Further, the project site has relatively shallow groundwater conditions so excavations deeper than approximately 10 to 15 feet are likely to encounter groundwater seepage, and excavations deeper than 15 feet may encounter artesian conditions. Therefore, local dewatering and inflow control for excavations deeper than approximately 15 to 20 feet (which may vary across the project site) would be required for construction activities which may include gravel filled cut-off trenches around excavations for the subterranean parking structures with sump pumps. For larger and deeper excavations, some type of in-situ cutoff walls, such as sheet piling, jet grouting, or mixed in-place slurry or soil cement walls, may be implemented.

Approximately 420,000 cubic yards of total material would be excavated and likely hauled away from the project site with an estimated 240 trips per day for a total of 150 days over the full implementation of the Specific Plan buildout. An estimated daily average of 150 and a daily maximum of 300 construction workers would be employed. A traffic control plan would be implemented using appropriate construction traffic control measures to ensure that emergency access to the project site and the safe circulation of all modes of transportation is maintained on adjacent rights-of-way. Typical construction activities would occur Monday through Saturday 7:00 a.m. to 8:00 p.m. and would be in adherence to the City's Municipal Code Section 18-314(e). The only exception would be for nighttime concrete pours, should continuous pours be necessary for geotechnical considerations. In addition, prior to any ground disturbance or vegetation removal activities, the project would perform clearance surveys to maintain compliance with the federal Migratory Bird Treaty Act of 1918 (MBTA) and the California Fish and Game Code Section 3503 if construction occurs during the nesting bird season.

3.5.2 Project Operation

Operation of the proposed project would include mixed-use commercial and residential, residential only, and commercial only buildings comprising up to approximately 1,583 residential units, 80,000 square feet of retail space, 300,000 square feet of office space, and approximately 7.5 acres of publicly accessible open space. The project would install solar photovoltaic panels on the buildings to generate energy onsite.

The project would provide a residence to approximately 3,659 individuals, at a 95.9 percent occupancy rate which is consistent with the vacancy rate identified in the GPU Final Program Environmental Impact Report (PEIR).[1,2] The project anticipates onsite employees to operate and maintain the facilities, such as management, concierge, security, maintenance, and landscaping. Additionally, the project would provide workplaces for the retail and office tenants. Altogether, the project is estimated to generate an average of 3,018 round trips per day consisting of residents, onsite employees, retail and office space tenants, and visitors/customers. Based on the proposed uses, the project is estimated to require an average of approximately 430,455 gallons per day

[1] Per Table 4, Persons per Household Assumptions of Appendix B-b, Santa Ana Buildout Methodology, of the City of Santa Ana General Plan Update Draft PEIR, the generation factor of 2.41 for multi-family housing of 50 or more units for 2045 was used to calculate the proposed project's total population of 3,815 individuals. The vacancy rate for the City of Santa Ana is approximately 4.1 percent.

[2] City of Santa Ana, 2021, General Plan Update Draft PEIR, Page 5.13-7, available at: https://storage.googleapis.com/proudcity/santaanaca/uploads/2022/04/Volume-II-Updated-Draft-PEIR.pdf.

(482.5 acre-feet/year) of water for domestic and landscaping uses.

3.5.3 Circulation and Mobility

Mobility is a function that allows transportation, but it also guides how people experience the space around them as they move. Because of its location near employment, entertainment, and retail points of interest in Santa Ana and Costa Mesa, and its proposed mix of on-site land uses, the project would integrate mobility in both efficient transportation and experiential movement.

Pedestrian Network

The project site is located within a Pedestrian Opportunity Zone, which are areas identified in the GPU for public realm development (Mobility Element Implementation Action 3.4). Pedestrian Opportunity Zones are areas identified in the City's GPU for public realm development and are described as areas that currently have high pedestrian activity and areas that have the potential for it once land use densities and/or street and pedestrian improvements are made. The project would provide a pedestrian network allowing residents, visitors, and other users to circulate from one space to another throughout The Village in an enjoyable and comfortable environment. The Village would be designed with three tiers of pathways, which are described below and depicted in Figure 3-8.

Sidewalks. The proposed sidewalks would provide access to and from The Village, and would allow residents and visitors to walk to nearby destinations. Sidewalks would be parallel to the existing public roadways.

Pedestrian Paths. The proposed pedestrian paths form the core of the pedestrian movement network. All pedestrian paths would lead to the central commercial area.

Fitness Loop. The proposed Fitness Loop would be a unique feature in The Village that provides both a recreational amenity to residents and a functional component of the pedestrian network. The proposed loop would consist of an outer loop around the perimeter of The Village and an inner loop connecting to the gardens, open space, and retail areas within the site, enabling runners, pedestrians, and other users to reach all the spaces that The Village has to offer.

Bicycle Network and Amenities

The project proposes a network of bikeways that would enable residents and other users to travel to and from The Village via bicycle. The proposed bicycle network has been designed in accordance with the planned bikeways identified in the Santa Ana GPU, which include a new Class IV cycle track along Sunflower Avenue and a new Class I bike path along Bear Street. The proposed bicycle network and related amenities provided throughout The Village include areas for users to park their bicycles during their stay. Figure 3-9 shows the Proposed Bicycle Network for the proposed project.

Public Transit

The project site is identified in the GPU as a Transit Opportunity Corridor, which denotes where the Orange County Transit Authority (OCTA) has designated for major investments in higher-quality and high frequency transit service. OCTA currently provides public transit service to and from the project area, and operates one bus stop along the project site frontage on Sunflower Avenue, and another stop along South Plaza Drive, which bisects the site, as shown in Figure 3-10. Multiple bus stops are available within the vicinity of the project site that offer consistent headway to destinations throughout Orange County and beyond, including the following routes:

- *Local Route 55*, which runs via MacArthur Boulevard and Bristol Street from Santa Ana to Newport Beach, has an approximately 30-minute headway (Monday through Sunday);
- *Local Route 57*, which runs via State College Boulevard and Bristol Street from Brea to Newport Beach, has an approximately 15 minutes headway (Monday through Sunday);
- *Local Route 76*, which runs via Talbert Avenue and MacArthur Boulevard from Huntington Beach to John Wayne Airport (SNA), has an approximately 60 minute headway (Monday through Friday);
- *Local Route 86*, which runs from Sunflower Avenue and Bristol Street to Mission Viejo, has an approximately 60 minute headway (Monday through Friday);
- *Community Route 150*, which runs via Fairview Street and Flower Street from Santa Ana to Costa Mesa, has an approximately 40 minutes headway (Monday to Friday); and
- *Bravo Limited Stop Service 553*, which runs via Main Street from Anaheim to Costa Mesa, with buses approximately every 20 minutes (Monday through Friday).[3,4]

Bus stops and bus shelters would continue to be provided but may be relocated or reconstructed along the project frontages as a part of the project in collaboration with OCTA. No reduction in the number of bus stops along the project site frontages is anticipated.

Vehicular Circulation Network

The proposed circulation network would consist of existing public roadways and a new internal network of private streets and drives that offer access throughout The Village, as shown on Figure 3-11.

Public Roadways

Vehicular access to the project site would continue to be provided from three existing public roadways offering access to The Village: Sunflower Avenue; Plaza Drive; and Bear Street. The following describes the existing roadways and proposed project improvements to these existing roadways.

- *Sunflower Avenue.* Sunflower Avenue, on the southern boundary of The Village, offers east-west access, and is classified as a Major Arterial in the GPU. Sunflower Avenue provides regional connectivity via Bristol Street and Bear Street to nearby freeways that include I-405 and SR-73 to the south and SR-55 to the east.

  Sunflower Avenue has an existing curb-to-curb width of 108 feet with three westbound travel lanes, a center median, and three eastbound travel lanes. The westbound side of the roadway has a 10-foot-wide sidewalk. Improvements would include a new Class IV cycle track, landscape buffers, and continuation of the sidewalk.

- *Plaza Drive.* Plaza Drive is a local street that provides north-south access, and bisects the project site, creating two sections. The southern end of Plaza Drive terminates at Sunflower Avenue, where it becomes an entryway to South Coast Plaza. Plaza Drive has an existing curb-to-curb width of 64 feet, with two southbound travel lanes, a center

[3] Orange County Transportation Authority, 2024, Bus Book, available at: https://www.octa.net/getting-around/bus/oc-bus/routes-and-schedules/routes-and-schedules/.

[4] Orange County Transportation Authority, West/Central County System Map, available at: https://www.octa.net/ebusbook/routePdf/WCCounty.pdf?n=2023, accessed June 2023.

median, and two northbound travel lanes. Each side of the roadway has an 8-foot-wide sidewalk. The west side of Plaza Drive includes an existing 4-foot-wide landscape area that serves as a buffer between the existing parking lot and sidewalk.

With the development of the project, Plaza Drive would maintain the four lanes of traffic but would have an expanded curb-to-curb width of 80 feet. Improvements would include adding a loading zone in the expanded right-of-way, two new traffic signals, and new curb-adjacent landscape buffers.

- *Bear Street.* Bear Street is a north-south Secondary Arterial that provides access to the western portion of the project site and SR-73. Bear Street is also the dividing boundary between the City of Santa Ana to the east, where the project site resides, and the City of Costa Mesa to the west. Bear Street has an existing curb-to-curb width of 84 feet with three southbound travel lanes, a left-turn pocket, and two northbound travel lanes. The right-of-way from the project site to the City limit is 50 feet. Each side of the roadway has sidewalks between 5-8 feet wide.

  With the project, Bear Street would maintain the same curb-to-curb width, travel lanes, and left-turn pockets. Improvements would include upgraded bicycle facilities and a new traffic signal. Based on community input, the project includes adding a traffic signal at the intersection of Bear Street and Wakeham Place.

Proposed Internal Circulation Network

The project proposes a new internal network of private roadways to support mobility throughout The Village. Private roadways fall under three roadway categories: Private Drives, which are roadways completely within the private right-of-way of The Village and support the internal circulation for people and goods in The Village; Private Streets, which have similar functions to Private Drives, but also allow City and other public utilities access for utility purposes; and Driveways, which are smaller internal connections meant to be used by residents and businesses to access a specific building. Private Drives and Streets in the new internal circulation network would have one travel lane in each direction, with planting and pedestrian paths on both sides.

Emergency Vehicle Access

Public and private roadways throughout The Village would be designed to accommodate emergency vehicles for fire, ambulance, and police services. The roadways would not have restricted access such as gates that would prevent emergency vehicles from reaching the intended destinations.

Roadway improvements and new roadway construction would be performed in accordance with the Orange County Fire Authority standards and requirements.

Loading Zones

The project would have multiple loading zones to accommodate passengers and goods. These include designated passenger loading zones that would create safe and comfortable entries into The Village for passengers that are dropped off or picked up via ridesharing or other modes. The designated passenger loading zones would also prevent queuing in vehicular travel lanes. The project also includes commercial loading zones to separate the movement of goods from the movement of people and to support businesses throughout The Village. Figure 3-12 shows the proposed loading zones for The Village.

Parking

The project would provide parking to accommodate residents and visitors that drive to and from The Village by a combination of underground parking, above-ground structure parking, and on-street parking. Above- or below-ground structured parking would be provided for each residential, mixed-use, or office building. Underground and on-street parking would be provided adjacent to the Village Plaza uses, which include retail, food and beverage, among other uses. A portion of these parking spaces would be designated and equipped with charging receptacles for electric vehicles for residential and nonresidential uses. Figure 3-13 shows the conceptual parking locations for the proposed project.

Table 3-3 provides the proposed parking standard minimums. The proposed project would provide approximately 3,500 parking spaces.

Table 3-3: Proposed Parking Standards

Use	Specific Plan Parking Ratio (Minimum)
Residential	1.4 per unit
Restaurant	4 spaces/1,000 sf
Retail	4 spaces/1,000 sf
Office	3 spaces/1,000 sf

3.5.4 Open Space and Landscape Concept

The project proposes open space and an immersive garden landscaping concept as critical components of placemaking for The Village. The project proposes both active/passive public spaces and private open space areas, as well as planting zones, which are described below and depicted in Figures 3-6 and 3-14.

Active and Passive Open Space

The project would provide unique areas of active and passive open space. Active areas include walkways, programmable roadways, a promenade, garden strolls spaces, a garden paseo, and the fitness loop, which would provide pedestrian and exercise opportunities and connections to the proposed amenities and retail areas in The Village. Passive open spaces include recreation-ready spaces such as pocket parks, a dog park, and gathering areas such as a promenade suitable for outdoor programming, such as outdoor yoga, fitness classes, gatherings, and outdoor movie nights.

Private Open Space

The project would be designed with private open space amenities throughout the towers and podium buildings. These spaces would provide residents with communal gathering spaces and intimate gardens; opportunities for recreation, and amenity facilities including pools and spas, outdoor kitchens, and socializing spaces. Additionally, the residential areas would include other private open space areas such as balconies and patios.

Planting Zones

The project would include a number of planting zones in the aforementioned open space areas

to provide immersive garden living using a variety of native trees, drought-tolerant plants, and shrubs as shown in Figure 3-14. Existing trees would be removed, and replaced as part of the proposed project planting plan. Trees on private property are not subject to protection in the City; however, trees within City parkways and public rights-of-way are subject to protection and requirements under Article VII, Regulation of the Planting, Maintenance, and Removal of Trees of the City's municipal code. The planting zones include landscaped areas along streetscapes and in the Plaza and retail areas, recreation lawns, and pocket parks.

Plants, trees, shrubs, and ground covers would complement the architecture of The Village to create a unique sense of place and foster community gathering.

3.5.5 Utilities and Service Providers

While the project site has been fully developed with the current uses, the proposed project entails a greater intensity of uses compared with existing operations, and would therefore require a greater demand on utility systems and public services. Utility connections and extensions, distribution lines, and collection lines would be extended and/or upgraded, as needed from existing infrastructure locations. Table 3-4 identifies the utility systems and public service providers in the project area, which are described in further detail below.

Table 3-4: Project Area Utility System and Public Service Providers

Service	Provider
Communications (telephone, wi-fi, and cable television)	Multiple service providers, including Charter (Spectrum) and AT&T
Electricity and Natural Gas	Southern California Edison and Southern California Gas
Fire Protection	Orange County Fire Authority
Law Enforcement	Santa Ana Police Department
Schools	Santa Ana Unified School District
Solid Waste Disposal and Recycling	Republic Services
Storm Drainage	City of Santa Ana Public Works Department/Orange County Flood Control District
Wastewater	City of Santa Ana Water Resources Division/Orange County Sanitation District
Water (domestic)	City of Santa Ana Water Resources Division
Water (reclaimed)	Orange County Water District (OCWD)

Communications

Communication services such as telephone, wi-fi, and cable television are provided to the area by multiple providers. The largest service providers are Charter (Spectrum) and AT&T.

Electricity and Natural Gas

Public gas and electric facilities providing existing service to the project site are owned and operated by Southern California Gas and Southern California Edison, respectively. Service lines for new buildings would be extended or relocated from the existing infrastructure.

Fire Protection

The Orange County Fire Authority provides fire protection services to the project area. The nearest facility is Orange County Fire Authority Fire Station #76 located at 950 MacArthur Avenue, less than one mile northeast of the project site.

Law Enforcement

Police service is provided by the Santa Ana Police Department. The department is headquartered at the Civic Center Plaza and has two substations: Westend and the Santa Ana Regional Transportation Public Safety office.

School Services

The project site is located within the boundaries of the Santa Ana Unified School District, which encompasses a 24-square-mile area. The SAUSD has 57 schools, including 26 elementary schools, two K-6 schools, four K-8 schools, eight intermediate schools, seven high schools, four educational options secondary schools, one dependent charter school, one child development center, three early childhood education programs, and one K-6 deaf and hard of hearing regional program. The project site is served by Thomas Jefferson Elementary School, which is located at 1522 West Adams Street; McFadden Institute of Technology (Intermediate School), which is located at 2701 South Raitt Street; and Segerstrom High School, which is located at 2301 West MacArthur Boulevard.

Solid Waste

Republic Services provides curbside recycling, garbage, and yard waste services to the City. Additionally, the City of Santa Ana ordinance now requires three bins for trash collection, trash, general recycling, and organic materials. The project would implement waste disposal services to allow for trash, recycling, and food waste for all residential and commercial uses. Solid waste generated in the City is delivered to two primary landfills in Orange County – the Frank R. Bowerman Sanitary Landfill and the Olinda Alpha Sanitary Landfill. Exported soil from the project site would be hauled away to Waste Management Azusa Land Reclamation.

The City currently participates in several recycling programs, including residential recycling, organics recycling, and construction and demolition recycling. The City has two authorized haulers for construction and demolition recycling, Waste Management and Ware Disposal. Construction and demolition debris is accepted for recycling at Madison Materials in Santa Ana.

Drainage Infrastructure and Water Quality Management

The City owns and maintains a network of storm drain infrastructure, primarily storm drain mains and catch basins, throughout the City. The Specific Plan area is located in the Upper Newport Bay watershed. The project site is within Subarea 40 of the City's Gardens Watershed, as identified in the City's 2018 Storm Drain Master Plan. The project is within the watershed of the Orange County Flood Control District Gardens Channel, Facility No. F02. Storm flows in Bear Street flow in an existing reinforced concrete pipe toward Sunflower Avenue. Storm flows then turn to the east and intersect with flows generated from South Plaza Drive to the north, and ultimately continue to drain to the east toward Bristol Street. The proposed grading and storm drain network would be designed to match existing drainage and flow patterns to best utilize the capacities available in the existing public storm drain system. Based on current hydraulic models, buildout of the Specific Plan would not increase the peak stormwater flows; however, final routing of the storm drain system may require the construction of underground detention systems to handle a minimum of the 10-year design storm, per the latest version of the Orange County Local

Drainage Manual. Due to the high podium building drainage demand and the presence of multiple subterranean garage entrances, on-site drainage systems would be sized to protect all garage entrances from the 100-year storm street ponding elevation. See Figure 3-15, Proposed Storm Drain System, for a schematic layout of the proposed storm drain network. Final alignment and points of connections would be developed during the design permitting phase based on the results of final studies and City input.

Additionally, the City of Santa Ana, inclusive of the Specific Plan area, falls under the North Orange County Municipal Separate Storm Sewer System (MS4) Stormwater Permit (Order No. R8-2010-0062) which identifies stormwater runoff requirements and regulations for new development and significant redevelopment projects to be protective of water quality. Best Management Practices (BMPs) are structural or engineered devices and systems used to treat storm water runoff before it is discharged into a drainage system (storm drain or channel). BMPs would be required to be implemented as part of the Specific Plan following local MS4 Permit requirements as well as the Orange County Technical Guidance Document and Model Water Quality Management Plan.

Due to the Orange County Technical Guidance Document's capture requirements and shallow groundwater, poor soil infiltration rates, and anticipated basement level construction, the Specific Plan area would be required to implement bio-filtration as the primary water quality treatment method. The use of proprietary flow-based bio-filtration boxes (e.g., Modular Wetlands or Filtera Units) are proposed for the primary bio-filtration method. As an alternate approach, surface bio-filtration planters, green roofs, and localized capture and re-use would be analyzed during the final design stages based on site constraints. Additionally, during each phase of development, the associated localized drainage and water quality systems dedicated to each building site would be analyzed and constructed with each building before connecting to the on-site backbone storm drain system. See Figure 3-16, Proposed Water Quality System, for a schematic layout of the proposed water quality treatment system. Final location, number of units, and treatment method would be developed during the design permitting phase based on the results of final studies and City input.

Wastewater Conveyance and Treatment

The City of Santa Ana's Water Resources Division owns and maintains sewer infrastructure, primarily sewer mains, throughout the City. The City mains connect to Orange County Sanitation District (OC San) trunk sewers throughout the City and convey sewage to OC San's water reclamation facility in Fountain Valley, which processes approximately 117 million gallons per day of sewage.

The City owns and maintains an existing 8-inch vitrified clay pipe (VCP) sewer main along Sunflower Avenue and a short segment of 10-inch VCP sewer main within Bear Street at the northwest corner of The Village. The remainder of the surrounding sewer network is owned and maintained by OC San and consists of a 10-inch VCP sewer main in Bear Street, a 15-inch VCP sewer main in Plaza Drive, and a 78-inch reinforced concrete pipe trunk sewer main in Sunflower Avenue.

As part of project development requirements, a sewer capacity study has been submitted to OC San to verify capacity of the County sewer mains. OC San review identified that there is existing capacity within the Sunflower trunk main; however, the smaller VCP sewer mains in Bear Street and Plaza Drive have no additional capacity beyond current discharges. As shown in Figure 3-17, the proposed project would include the construction of an on-site private sewer network that would convey a majority of sewer flows generated west of Plaza Drive within a private sewer

network to connect to the City's VCP sewer main in Sunflower Avenue and ultimately discharge to the OC San Sunflower trunk sewer main located near the southwest corner of the project site. A portion of the sewer flows generated to the east of Plaza Drive would be connected to the existing OC San VCP sewer main in Plaza Drive via construction of a new City sewer main/lateral to match the existing discharge rates generated from the project site. The remainder of the sewer flows from the site would be directed to the VCP City sewer main located in Sunflower Avenue to utilize available existing capacities in the City's system. All new connections would be constructed per City and OC San standards. Final alignment, points of connections, and limits of sewer removal and replacement would be developed during the design permitting phase based on the results of final studies and City input.

Domestic Water and Reclaimed Water

The City of Santa Ana's Water Resources Division provides potable water service in the project area. The City owns and maintains water infrastructure, including 480 miles of transmission and distribution mains, 10 reservoirs with a storage capacity of 49.3 million gallons, 7 pumping stations, 20 wells, and 7 import water connections. The City's water supply is sourced mainly from local groundwater from the Lower Santa Ana River Groundwater Basin, also known as the Orange County Groundwater Basin, managed by the Orange County Water District (OCWD), imported water from the Metropolitan Water District of Southern California (MWD), and recycled water from OCWD. The City is a member agency of MWD, which as a regional wholesaler, supplies imported water to Southern California. MWD's primary purpose is to develop, store and distribute water at wholesale rates to its member public agencies for domestic and municipal uses.

The City owns and maintains existing 12-inch asbestos cement pipe water mains on Sunflower Avenue, Bear Street, and Plaza Drive, fronting the project site. The City has completed a hydraulic model evaluation based on the currently proposed development densities and layout and has determined that the existing public water system is adequate to service the proposed development with no further upgrades (see Hydraulic Model Evaluation for The Village Project, prepared by AKEL Engineering Group, Inc. Dated June 2024, Appendix I).

The Village's proposed water demand would be approximately 302,970 gallons per day (339 acre feet per year). As shown in Figure 3-18, the proposed project would construct new on-site private fire water networks within the development to the west and east of Plaza Drive in order to allow construction of private fire hydrants and provide fire sprinkler connections to proposed structures. New domestic, irrigation, and fire water service connections would also be constructed for proposed structures and made directly to the existing public water mains located throughout the Specific Plan area per City standard plans. All existing laterals no longer servicing the site would be removed and abandoned up to the existing water main per City standards.

Recycled water is primarily used for parks, medians, and trails, and is available adjacent to the Specific Plan area. The Village has an existing OCWD 2-inch recycled water service on Bear Street, which is part of OCWD's Green Acres Project and is proposed to remain available for irrigation. OCWD has indicated that no new recycled water services connections are available, however the existing 2-inch service will remain available for the maximum extent possible for irrigation. Any new irrigation connections needed would come from the City's domestic water system from pipes along the eastern portion of the Village unless in the future, OCWD allows additional recycled metering. Final layout, location, and number of proposed recycled water and irrigation laterals and meters would be developed during the design permitting phase based on the results of final studies and City and County input.

3.6 REQUIRED PERMITS AND APPROVALS

The following approvals and/or permits would be required to implement the proposed project. The environmental documentation for the proposed project would be used to facilitate compliance with federal, state, and local laws and ordinances, as well as granting permits by various federal, state, and local agencies having jurisdiction over one or more aspects of the project.

City of Santa Ana

- The Village Santa Ana Specific Plan adoption by ordinance by City Council
- Environmental Impact Report (EIR) certification in accordance with the California Environmental Quality Act (CEQA) by resolution by City Council
- Development Agreement: A development agreement between the Applicant and the City describing development rights and public benefits for the development pursuant Government Code Section 65864 et seq. The Development Agreement will be reviewed concurrently with the Village Santa Ana Specific Plan and requires adoption by ordinance by City Council.
- Tentative Tract Map to create legal conveyable lots for project development, formalize the parcel boundaries, and provide for public rights-of-way for project access. The Tentative Tract Map will be reviewed concurrently with the Village Santa Ana Specific Plan and requires adoption by resolution by City Council.
- Demolition, grading, and building permits

City of Costa Mesa

- Issuance of encroachment permits

Santa Ana Regional Water Quality Control Board

- National Pollutant Discharge Elimination System (NPDES) Construction General Permit (Order No. 2022-0057-DWQ)
- Orange County MS4 Permit (Order R8-2009-0030, NPDES No. CAS618030, as amended by Order No. R8-2010-0062)
- General Waste Discharge Requirements for Discharges to Surface Waters Resulting from De Minimis Discharges or Groundwater Dewatering Operations, and/or Groundwater Cleanup/Remediation Operations at Sites within the Newport Bay Watershed Permit (Order No. R8-2019-0061, NPDES No. CAG918002)

Federal Aviation Administration

- Form 7460-1, Notice of Actual Construction or Alteration

Orange County Airport Land Use Commission

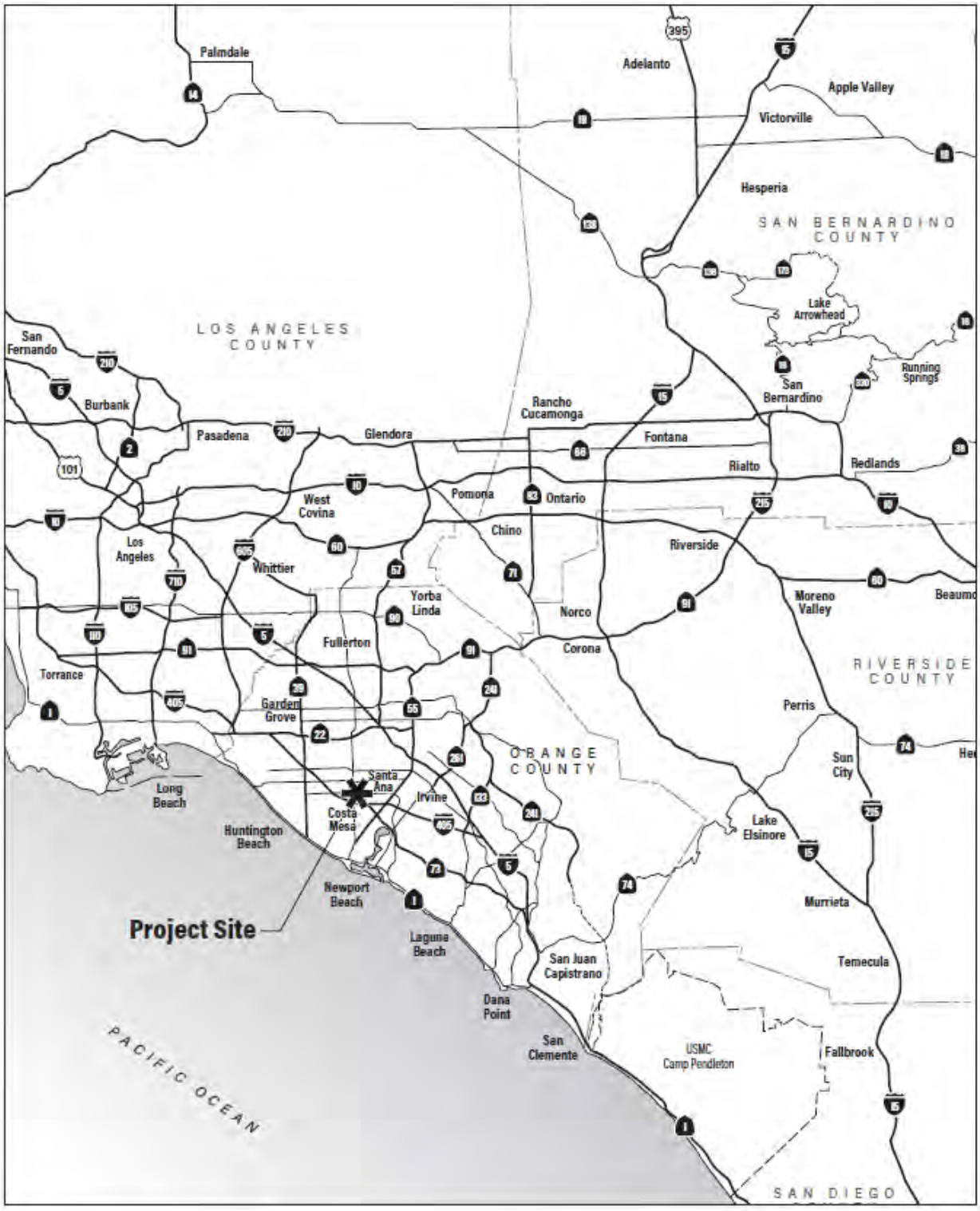
- Land use review

Orange County Transportation Authority (OCTA)

- Issuance of approvals associated with bus stop improvements and relocations

South Coast Air Quality Management District

- Issuance of any permits to construct or permits to operate



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Regional Location

Figure 3-1

Source: Google Earth Pro, June 2024

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Project Site

Figure 3-2

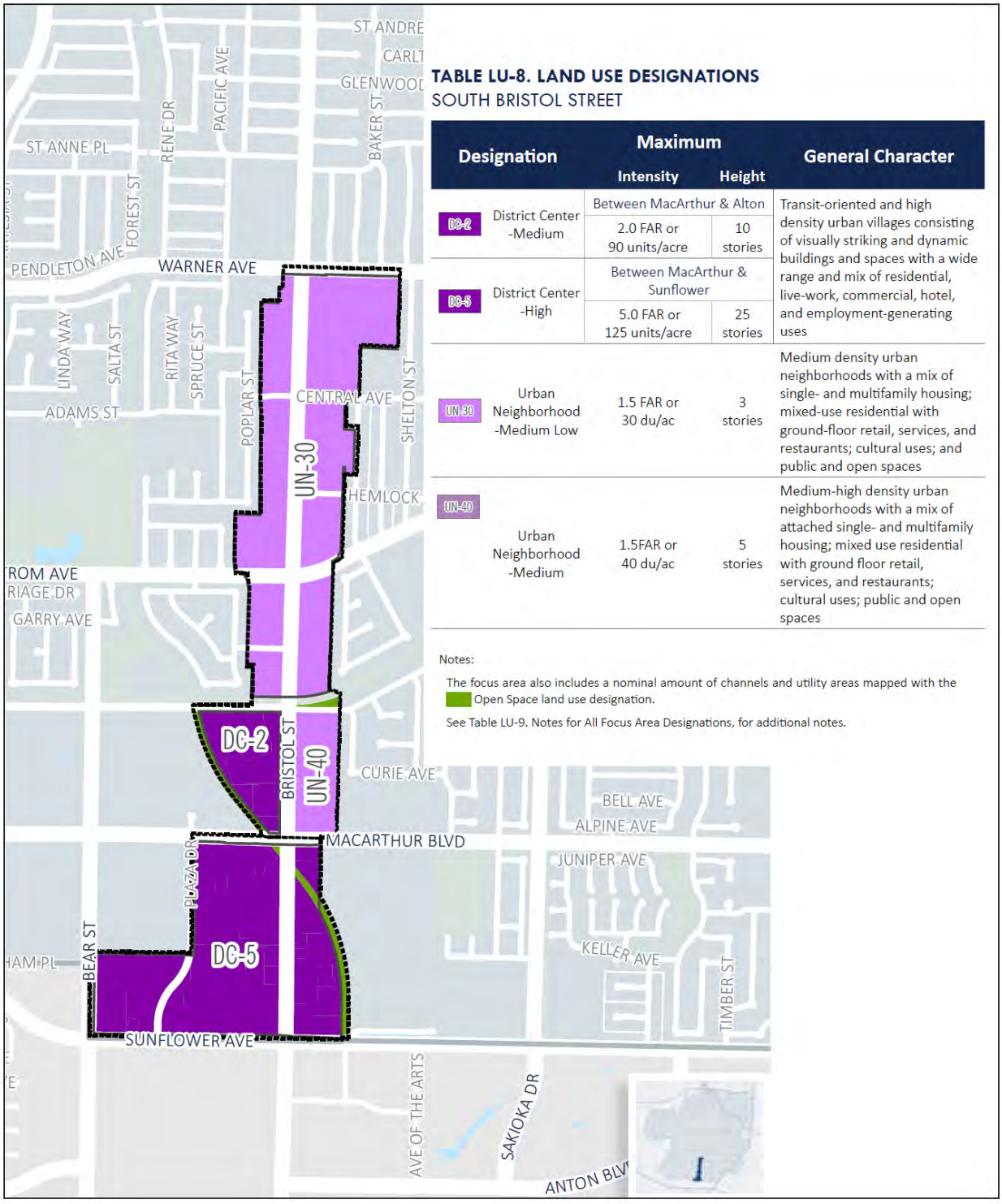

TABLE LU-8. LAND USE DESIGNATIONS
SOUTH BRISTOL STREET

Designation		Maximum Intensity	Maximum Height	General Character
DC-2	District Center -Medium	Between MacArthur & Alton 2.0 FAR or 90 units/acre	10 stories	Transit-oriented and high density urban villages consisting of visually striking and dynamic buildings and spaces with a wide range and mix of residential, live-work, commercial, hotel, and employment-generating uses
DC-5	District Center -High	Between MacArthur & Sunflower 5.0 FAR or 125 units/acre	25 stories	
UN-30	Urban Neighborhood -Medium Low	1.5 FAR or 30 du/ac	3 stories	Medium density urban neighborhoods with a mix of single- and multifamily housing; mixed-use residential with ground-floor retail, services, and restaurants; cultural uses; and public and open spaces
UN-40	Urban Neighborhood -Medium	1.5FAR or 40 du/ac	5 stories	Medium-high density urban neighborhoods with a mix of attached single- and multifamily housing; mixed use residential with ground floor retail, services, and restaurants; cultural uses; public and open spaces

Notes:

The focus area also includes a nominal amount of channels and utility areas mapped with the Open Space land use designation.

See Table LU-9. Notes for All Focus Area Designations, for additional notes.

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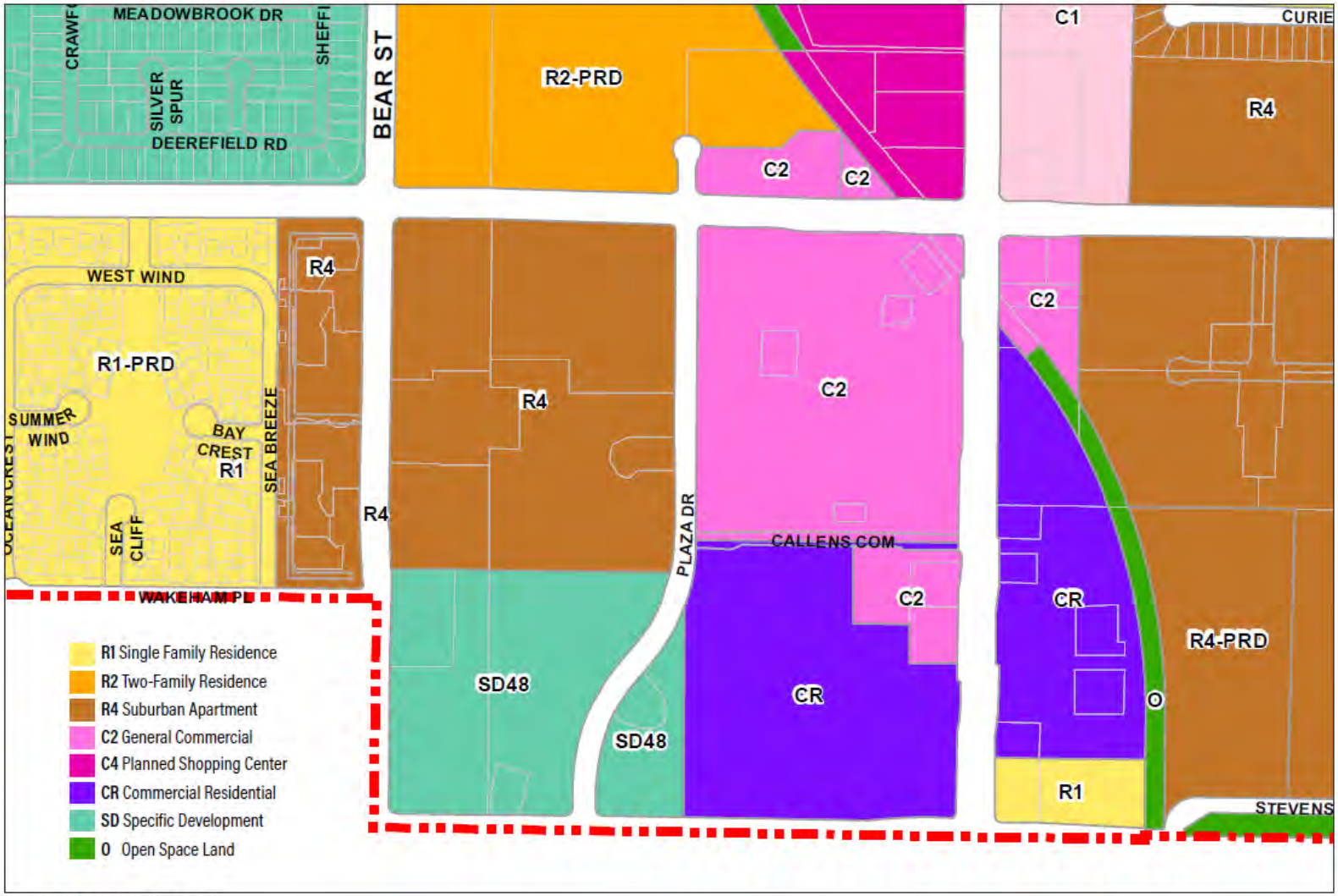
THE VILLAGE SANTA ANA SPECIFIC PLAN PROJECT

Existing General Plan Land Uses

Figure 3-3



Source: City of Santa Ana Zoning Map, June 2024

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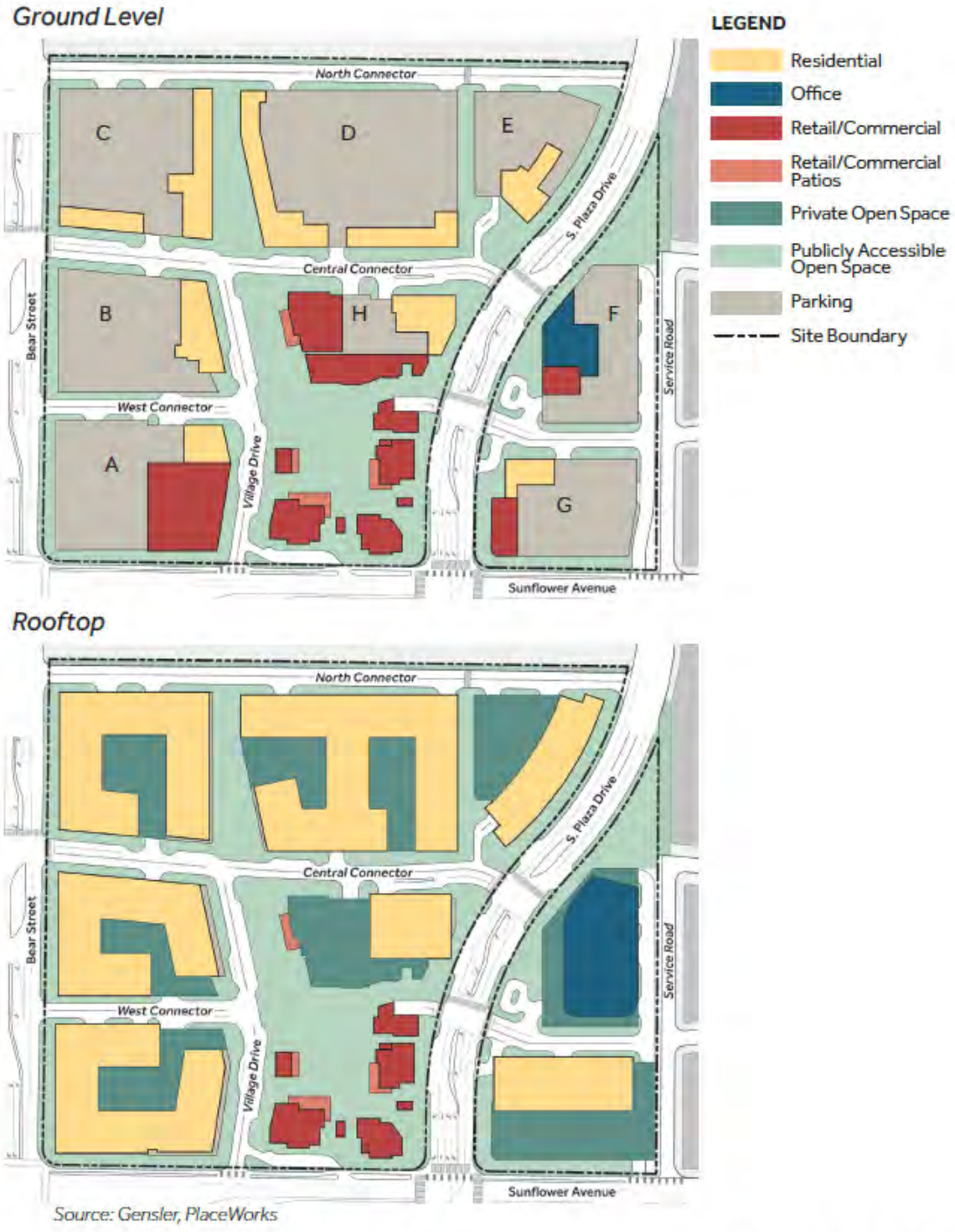
Existing Zoning Designations

Figure 3-4



Source: Gensler, PlaceWorks

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Conceptual Land Use Plan

Figure 3-5

Source: RIOS

Note: Conceptual site plan for illustrative purposes, subject to change through the Development Project Plan Approval process.

LEGEND

- 01 Promenade
- 02 Village Square
- 03 Garden Paseo
- 04 Garden Strolls
- 05 Recreation Lawn
- 06 Restaurant Patios
- 07 Grand Stairs
- 08 Gateway Art
- 09 Water Feature
- 10 Pocket Park
- Site Boundary
- Fitness Loop

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THE VILLAGE SANTA ANA SPECIFIC PLAN PROJECT

Conceptual Site Plan

Figure 3-6

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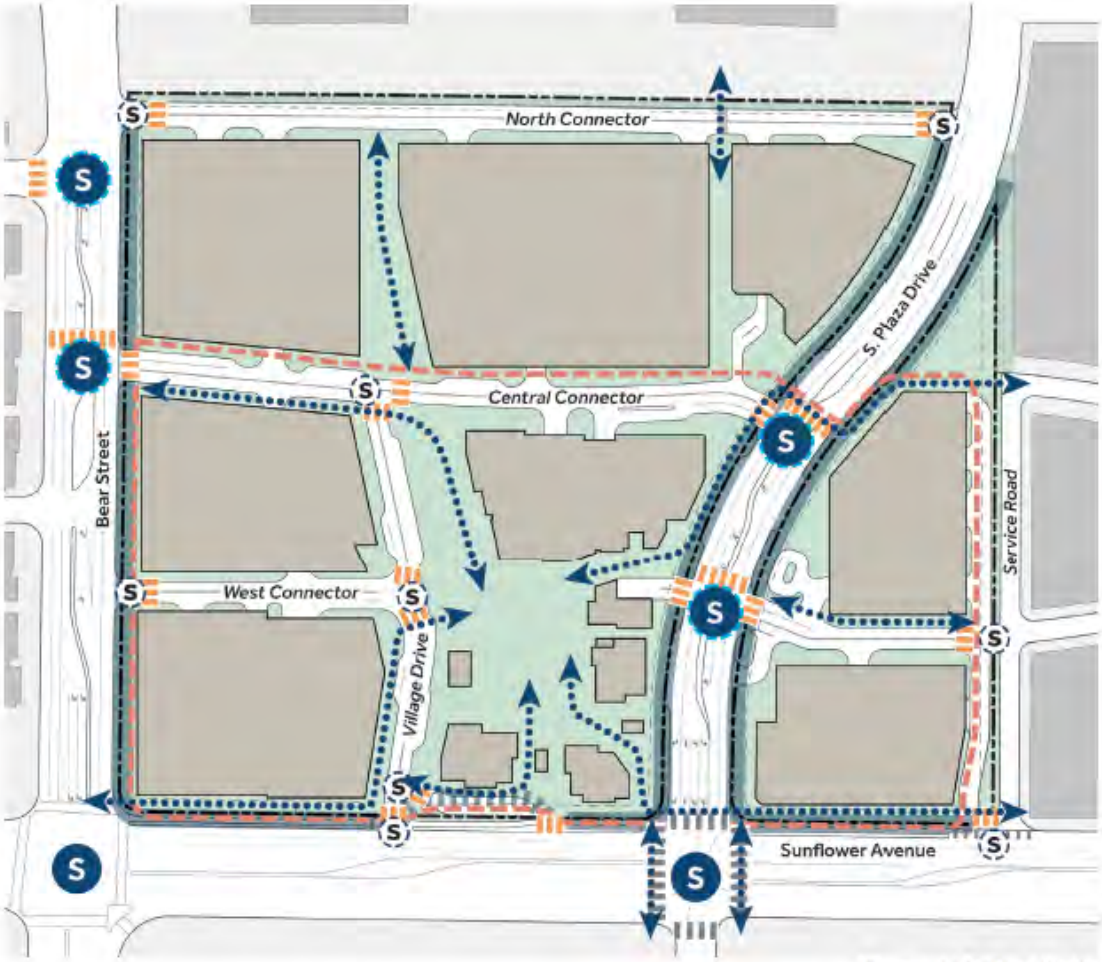
Conceptual Phasing Plan

Figure 3-7



Source: LLG, PlaceWorks

Note: Conceptual site plan for illustrative purposes, subject to change through the Development Project Plan Approval process.

LEGEND

Pedestrian Pathway Classifications

- Existing Sidewalk
- Proposed Sidewalk Extensions
- Proposed Pedestrian Path/ Sidewalk
- Proposed Fitness Loop

Traffic Control Devices

- Existing Traffic Signal
- Proposed Traffic Signal
- Proposed Stop Sign(s)
- Proposed Crosswalk
- Existing Crosswalk

- Open Space
- Site Boundary

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THE VILLAGE SANTA ANA SPECIFIC PLAN PROJECT

Proposed Pedestrian Network

Figure 3-8

Source: LLG, PlaceWorks

Note: Conceptual site plan for illustrative purposes, subject to change through the Development Project Plan Approval process.

LEGEND

- Proposed New Class I Bike Path
- Proposed New Class IV Cycle Track
- Proposed Bicycle Parking
- Open Space
- Site Boundary

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Proposed Bicycle Network

Figure 3-9

Source: LLG, PlaceWorks

Note: Conceptual site plan for illustrative purposes, subject to change through the Development Project Plan Approval process.

LEGEND

- Existing Transit Stops
- Open Space
- Site Boundary

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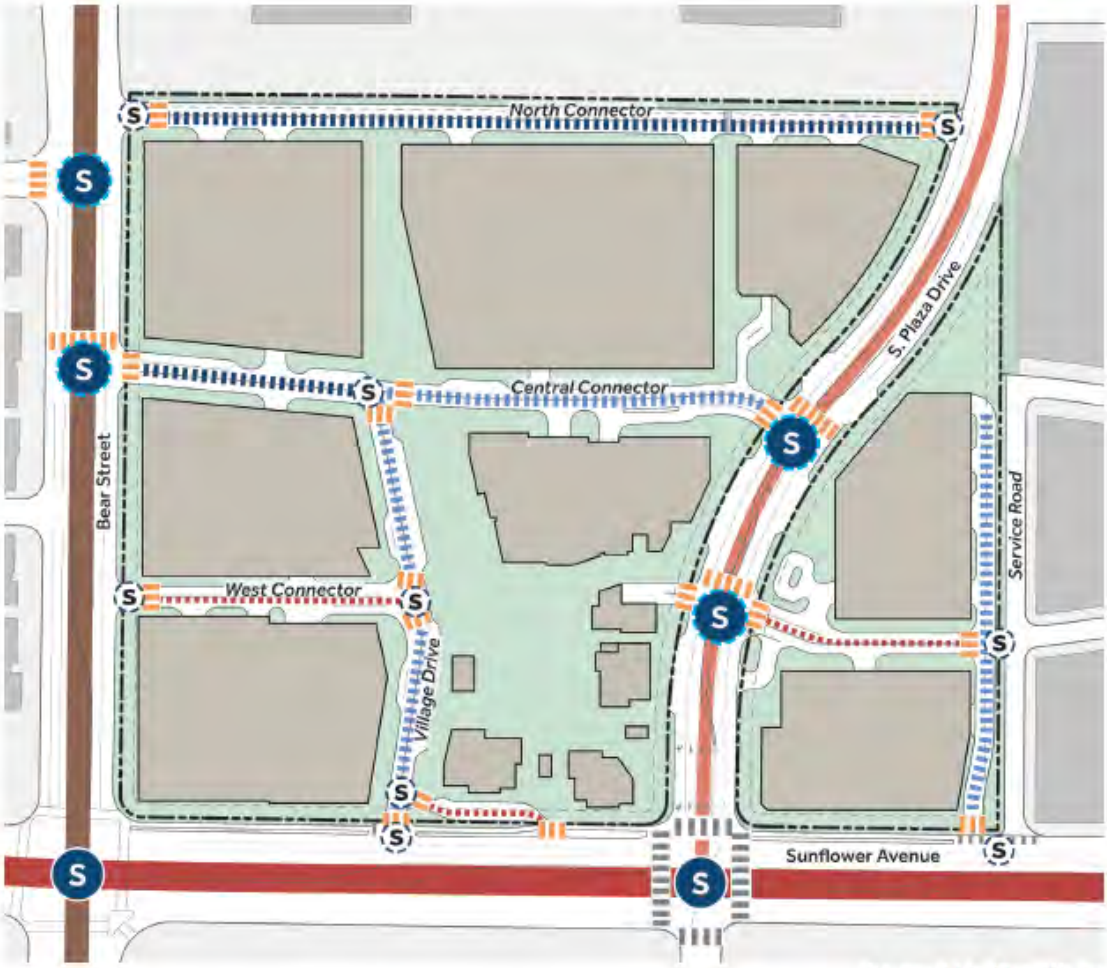
Existing Public Transit Stops

Figure 3-10



Source: LLG, PlaceWorks

Note: Conceptual site plan for illustrative purposes, subject to change through the Development Project Plan Approval process.

LEGEND

Roadway Classifications
- Major Arterial
- Secondary Arterial
- Local Street
- Private Street
- Private Drive
- Driveway

Traffic Control Devices
- Existing Traffic Signal
- Proposed Traffic Signal
- Proposed Stop Sign(s)
- Proposed Crosswalk
- Existing Crosswalk

- Open Space
- Site Boundary

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THE VILLAGE SANTA ANA SPECIFIC PLAN PROJECT

Proposed Circulation Network

Figure 3-11

Source: LLG, Gensler

Note: Conceptual site plan for illustrative purposes, subject to change through the Development Project Plan Approval process.

LEGEND

- Commercial Loading
- Passenger Loading
- Commercial/Passenger Loading
- Open Space
- Site Boundary

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THE VILLAGE SANTA ANA SPECIFIC PLAN PROJECT

Proposed Loading Zones

Figure 3-12

Source: LLG, Gensler

Note: Conceptual site plan for illustrative purposes, subject to change through the Development Project Plan Approval process.

LEGEND

- Parking Location
- Parking Access
- Open Space
- Site Boundary

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Conceptual Parking Locations

Figure 3-13

Source: RIOS

Note: Conceptual site plan for illustrative purposes, subject to change through the Development Project Plan Approval process.

LEGEND

- Sunflower Ave Streetscape
- Bear St Streetscape
- S Plaza Dr Streetscape
- North Connector Streetscape
- Internal Streetscapes
- General Streetscape Areas
- Paseos & Plazas
- Retail Accents
- Private Open Space
- Recreation Lawns
- Site Boundary

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Proposed Planting Zones

Figure 3-14

Source: TAIT

Note: Conceptual storm drain system plan for illustrative purposes, subject to change through the Development Project Plan Approval process.

LEGEND

- Existing City Storm Drain
- Existing City Storm Drain Lateral (18") to Be Reused
- Proposed Private Backbone Storm Drain Network (12–18")
- Site Boundary

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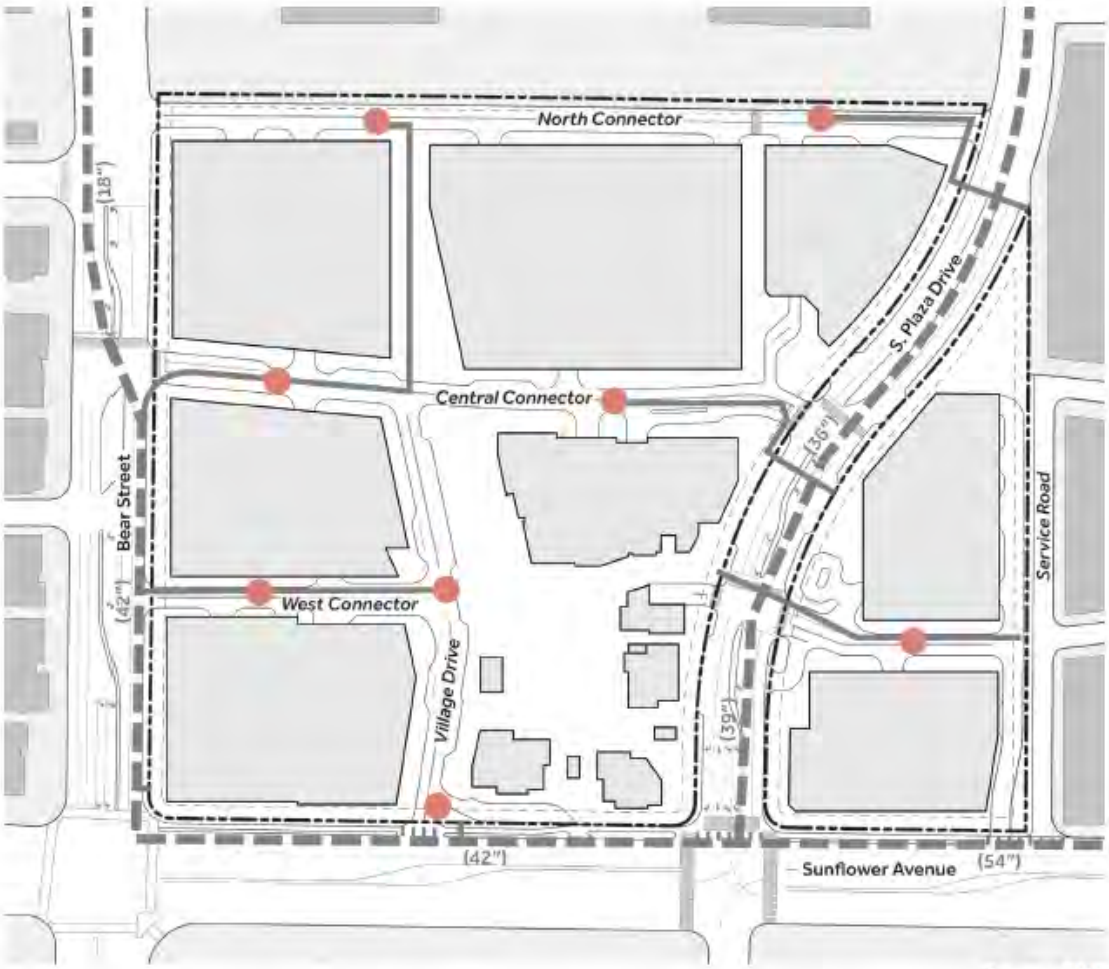
THE VILLAGE SANTA ANA SPECIFIC PLAN PROJECT

Existing and Proposed Storm Drain System

Figure 3-15



Source: TAIT

Note: Conceptual water quality system plan for illustrative purposes, subject to change through the Development Project Plan Approval process.

LEGEND

- Existing City Storm Drain
- Proposed Storm Drain/Laterals
- Location of Master Site Drainage Capture & Water Quality Treatment
- Site Boundary

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THE VILLAGE SANTA ANA SPECIFIC PLAN PROJECT

Existing and Proposed Water Quality System

Figure 3-16

Source: TAIT

Note: Conceptual sewer system plan for illustrative purposes, subject to change through the Development Project Plan Approval process.

LEGEND

- Existing OCSD Sewer Main
- Existing City Sewer Main (8–10")
- Proposed Private Sewer Main/Lateral (~8–18")
- Proposed City Sewer Main (~8")
- Proposed City Sewer (~15-18")
- Proposed Public Manhole (City)
- Existing County Manhole Modifications (4)
- Remove 10" and Construct New 18" County Sewer
- Site Boundary

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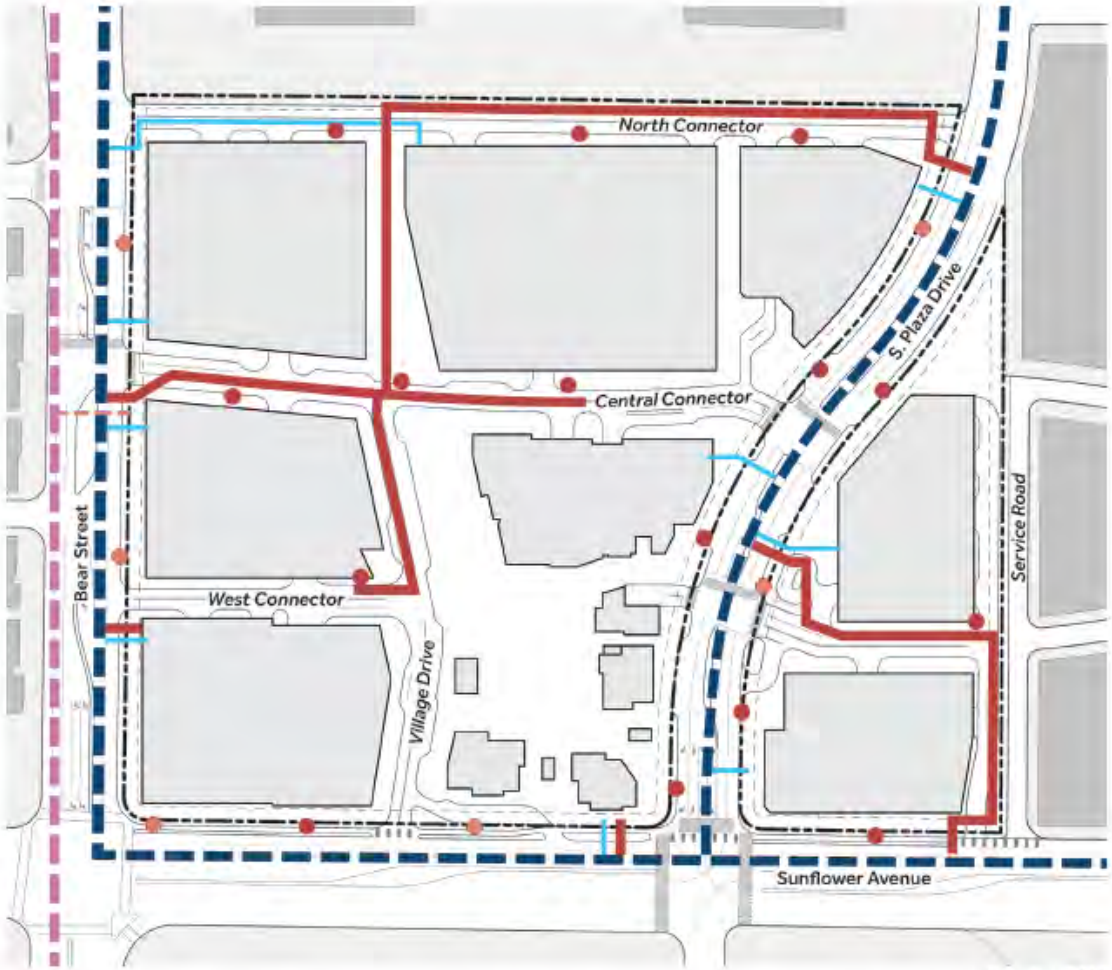
Existing and Proposed Sewer System

Figure 3-17



Source: TAIT

Note: Conceptual water system plan for illustrative purposes, subject to change through the Development Project Plan Approval process.

LEGEND

- Existing City Water Main (12")
- Existing County Recycled Water (24")
- Existing Recycled Water Lateral (2")
- Proposed Private Fire Water Main (~8–12")
- Proposed Domestic Water Lateral (6–8")
- Existing Fire Hydrant
- Proposed Fire Hydrant
- Site Boundary

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THE VILLAGE SANTA ANA SPECIFIC PLAN PROJECT

Existing and Proposed Water System

Figure 3-18

CHAPTER 4
ENVIRONMENTAL IMPACT ANALYSIS

This chapter focuses on evaluating the significant environmental effects of the proposed project, which is described in Chapter 3, Project Description. This chapter describes the existing physical environmental setting (also referred to as "baseline") for each environmental topic, and the impacts that would result from implementation of the proposed project, comparing the project's impacts with the impacts identified in the GPU PEIR. Because existing federal, state, and local regulations will also shape how the proposed project is implemented, and provide requirements for avoiding and reducing environmental impacts, a discussion of relevant regulations, plans, programs, and policies pertinent to each environmental issue addressed in each environmental topic section is provided. Additionally, as necessary, feasible mitigation measures are identified to reduce the significant impacts of the proposed project.

As described in Chapter 2, Introduction, the GPU PEIR (State Clearinghouse No. 2020029087) was certified by the City in 2022. The GPU PEIR included standard regulations and mitigation measures that apply to development projects within the City. The mitigation measures adopted as part of the GPU PEIR are related to: Air Quality, Biological Resources, Cultural Resources, Paleontological Resources, Greenhouse Gas Emissions, Noise, Recreation, and Tribal Cultural Resources. Those that are related to the proposed project are included in the discussion of each environmental topic area and will be included in the Mitigation Monitoring and Reporting Program for the proposed project.

4.1 ENVIRONMENTAL IMPACTS TO BE ANALYZED

The following sections in this chapter analyze the environmental topics listed below:

- Section 4.1: Air Quality
- Section 4.2: Cultural Resources
- Section 4.3: Energy
- Section 4.4: Geology and Soils
- Section 4.5: Greenhouse Gas Emission
- Section 4.6: Hazards and Hazardous Materials
- Section 4.7 Hydrology and Water Quality
- Section 4.8: Land Use and Planning
- Section 4.9: Noise
- Section 4.10: Population and Housing
- Section 4.11: Public Services
- Section 4.12: Recreation
- Section 4.13: Transportation
- Section 4.14: Tribal Cultural Resources
- Section 4.15: Utilities and Service Systems

Issues areas that would not be potentially impacted by the proposed project (including aesthetics, agricultural and forest resources, biological resources, mineral resources, and wildfire), are not addressed beyond the discussion contained in Chapter 5, Other CEQA Considerations.

4.2 STRUCTURE OF ENVIRONMENTAL ANALYSIS

The analysis for each environmental impact area is structured as described below.

4.2.1 Regulatory Framework

The Regulatory Framework subsection presents applicable federal, state, and/or local regulations, plans, goals, policies, and standards associated with the proposed project.

4.2.2 Environmental Setting

The Environmental Setting subsection describes the existing environmental conditions or "baseline conditions" in the area affected by construction and operation of the proposed project. The environmental setting is described within the defined project area and a regional vicinity context, with a focus on the particular environmental impacts being discussed. As detailed in Chapter 1, Introduction, this Supplemental EIR provides both baseline conditions from the GPU PEIR (i.e., 2020) and current conditions, such as the most recent available air quality monitoring data provided in Section 4.1, Air Quality, the noise measurements identified in Section, 4.9, Noise, and existing traffic conditions identified in Section 4.13, Transportation.

4.2.3 Thresholds of Significance

This subsection describes the criteria used to determine whether impacts should be considered significant. Significance thresholds are based on criteria identified in Appendix G of the State CEQA Guidelines. Other federal, State, or local standards that have been established relative to particular environmental resource areas are also taken into account when defining significance thresholds. Based on the significance thresholds, methodologies are provided to support the analyses.

4.2.4 Methodology to Determine Level of Impact Significance

Based on the significance thresholds, methodologies are provided to support the analyses which include sources or methods utilized in the preparation of the impact analysis for each environmental resource area.

4.2.5 Project Impacts

The Project Impacts subsection includes the impact analysis for each significant threshold and if applicable, any applicable mitigation measures and the level of significance after mitigation.

Impact Analysis

The impact analysis discussion summarizes the GPU PEIR's impact conclusion and evaluates how construction and operation of the proposed project would affect the existing conditions, potentially resulting in significant impacts on the environment, including direct or reasonably foreseeable indirect effects, then compares the project's impacts with the impacts identified in the GPU PEIR. The following categories for impact significance are used in this analysis:

- **No Impact**: The project would not have a measurable impact on the environment.

- **Less than Significant Impact:** The project would not result in a substantial adverse change in the environment.
- **Less than Significant Impact with Mitigation:** The project could have a substantial adverse impact on the environment, but mitigation measures would be implemented to reduce the impact to a less than significant level.
- **Significant and Unavoidable Impact:** The project would cause a substantial adverse impact on the environment that cannot be feasibly avoided or mitigated to a less than significant level.

For the comparative analysis of the project's impacts relative to the impacts identified in the GPU PEIR, this subsection will also indicate the following:

- Whether substantial changes are proposed for the project that would involve new significant impacts or substantially more severe impacts than those analyzed in the GPU PEIR (State CEQA Guidelines Section 15162(a)(1)).
- Whether there are any new or changed circumstances under which the project is undertaken that would involve new significant impacts or substantially more severe impacts than those analyzed in the GPU PEIR (State CEQA Guidelines Section 15162(a)(2)).
- Whether there is any new information of substantial importance that was not and could not have been known at the time of certification of the GPU PEIR that would show new significant impacts or substantially more severe impacts than those analyzed in the GPU PEIR, or feasible or new mitigation measures or alternatives (State CEQA Guidelines Section 15162(a)(3)).

Mitigation Measures

Mitigation measures from the GPU PEIR are incorporated, as applicable, and project-specific mitigation measures are identified, as needed, to reduce or eliminate significant impacts of the proposed project.

Level of Significance After Mitigation

This subsection indicates whether impacts would be reduced to a less than significant level after the application of proposed mitigation measures or remain significant even after application of the mitigation measures.

In the case where a mitigation measure(s) would avoid or reduce a significant impact to a level that is less than significant, a determination would be made that the residual impact would be less than significant. In the case where a mitigation measure(s) cannot reduce an impact to a level that is less than significant, then a determination would be made that the residual impact would remain significant and unavoidable, as required by State CEQA Guidelines Section 15126.2(c).

4.2.6 Cumulative Impacts

This Cumulative Impacts subsection discusses cumulative impacts in accordance with State CEQA Guidelines Section 15130, where an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable. This subsection evaluates the project's impacts in the context of other projects that may affect the same resources potentially leading to compounded or increased effects. Specifically, evaluation of cumulative impacts

assesses whether the incremental, individually limited impacts of a project, when considered together with the impacts of other past, present, and reasonably foreseeable future projects, may compound or increase environmental effects, resulting in a considerable contribution to cumulatively significant effects. According to Section 15355 of the State CEQA Guidelines, cumulative impacts refer to:

"Two or more individual effects which, when considered together are considerable or which compound or increase other environmental effects. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment which results from the incremental impact of a project when added to other closely related past, present, and reasonably foreseeable probably future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."

Where a lead agency is examining a project with an incremental effect that is not cumulatively considerable, a lead agency does not have to consider that effect significant, but can describe how the incremental effect is not cumulatively considerable. Cumulative study areas are defined based on an analysis of the geographical scope relevant to each particular environmental issue. Mitigation measures are also identified, as needed, to reduce or eliminate significant cumulative impacts.

Pursuant to Section 15130(b)(1) of the State CEQA Guidelines, an adequate cumulative impact analysis may be based on either:

- a list of past, present, and probable future projects producing related or cumulative impacts, or
- 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.

This EIR has been prepared to include both approaches.

1. A list of proposed development projects in the vicinity of the project site that could affect conditions in the project area (e.g., by adding traffic volumes to study area and/or generating population increases) was prepared based on information obtained primarily from the City of Santa Ana, City of Costa Mesa, and City of Irvine Planning Departments. A total of 32 potential related development projects have been identified for inclusion in the cumulative impact analysis for this Supplemental EIR. Of the 32 projects, 20 are located in the City of Santa Ana and thus, are included as part of the GPU buildout; 8 are located in the City of Costa Mesa; and 4 are located in the City of Irvine. The related projects are in varying stages of the approval/entitlement/development process and reflect the diverse range of land uses in the vicinity of the project site. Specifically, the related projects comprise a variety of uses, including apartments, single-family residences, commercial/retail uses, restaurants, offices, hotels, warehouses, industrial uses, recreational uses, museum uses, car wash and automotive-related uses, as well as mixed-use developments incorporating some or all of these elements. The related projects are listed in Table 4-1: List of Related Projects, which identifies the location of each related project along with the types of land uses. The locations of the related projects are shown in Figure 4-1: Related Projects.

2. In the second approach, the EIR analyzes the proposed project with respect to the projections contained in an adopted local plan, in this case, the City's GPU, which is the City's update of the Santa Ana General Plan. The purpose of the GPU is to comprehensively update the 1982 plan to reflect current conditions, establish a shared vision of the community's aspirations, and create the policy direction to guide the City's long-term planning and growth over the next two decades. Further, the GPU focuses on five areas within Santa Ana that the City determined are better suited for future development or overall improvement. Of these, the proposed project is located within the South Bristol Street focus area.

Table 4-1: List of Related Projects

Map ID	Project Name	Project Location	Project Description	Status
City of Santa Ana				
1	Legado at the Met	200 E. First American Way	278 residential apartments	Permits Issued
2	Our Lady of Guadalupe Office/Residence	542 E. Central Avenue	1 single-family residence and 2,972 sf office	Under Construction
3	Pollo Campero	2320 S. Bristol Street	2,756 sf fast-food restaurant with drive-thru	Completed
4	Garry Avenue Business Park	1700 E. Garry Avenue	91,500 sf distribution/warehouse use	Building Plan Check
5	Shell Service Station Retail Building	3820 S. Fairview Street	12 Vehicle Fueling Positions; 1,600 sf gas station and convenience store	Completed
6	3130 Fairview Industrial Building	3130 S. Fairview Street	82,241 sf industrial building	Under Construction
7	Bristol Office Plaza	1400 W. Saint Gertrude Place	7,000 sf commercial uses	Development Project Review
8	Chick-Fil-A Expansion	3601 S. Bristol Street	627 sf expansion of fast-food restaurant with drive-thru window	Completed
9	Legacy Sunflower Apartments	651 W. Sunflower Avenue	226 apartments	Completed
10	Related Bristol	NWC and SWC of Bristol Street and Callen's Common	Phase 1: Demolition of existing 244,120 sf retail uses. Construction of 1,375 mid-rise residential apartments, 200 senior continuum care units, 250-room hotel, and 250,000 sf retail uses. Phase 2: Demolition of existing 36,522 sf retail uses. Construction of 856 mid-rise residential apartments and 65,000 sf retail uses. Phase 3: Demolition of existing 184,421 sf retail uses. Construction of 1,519 mid-rise residential apartments and 35,000 sf retail uses. Includes 13.1 acres of open space.	Development Project Review

Table 4-1: List of Related Projects

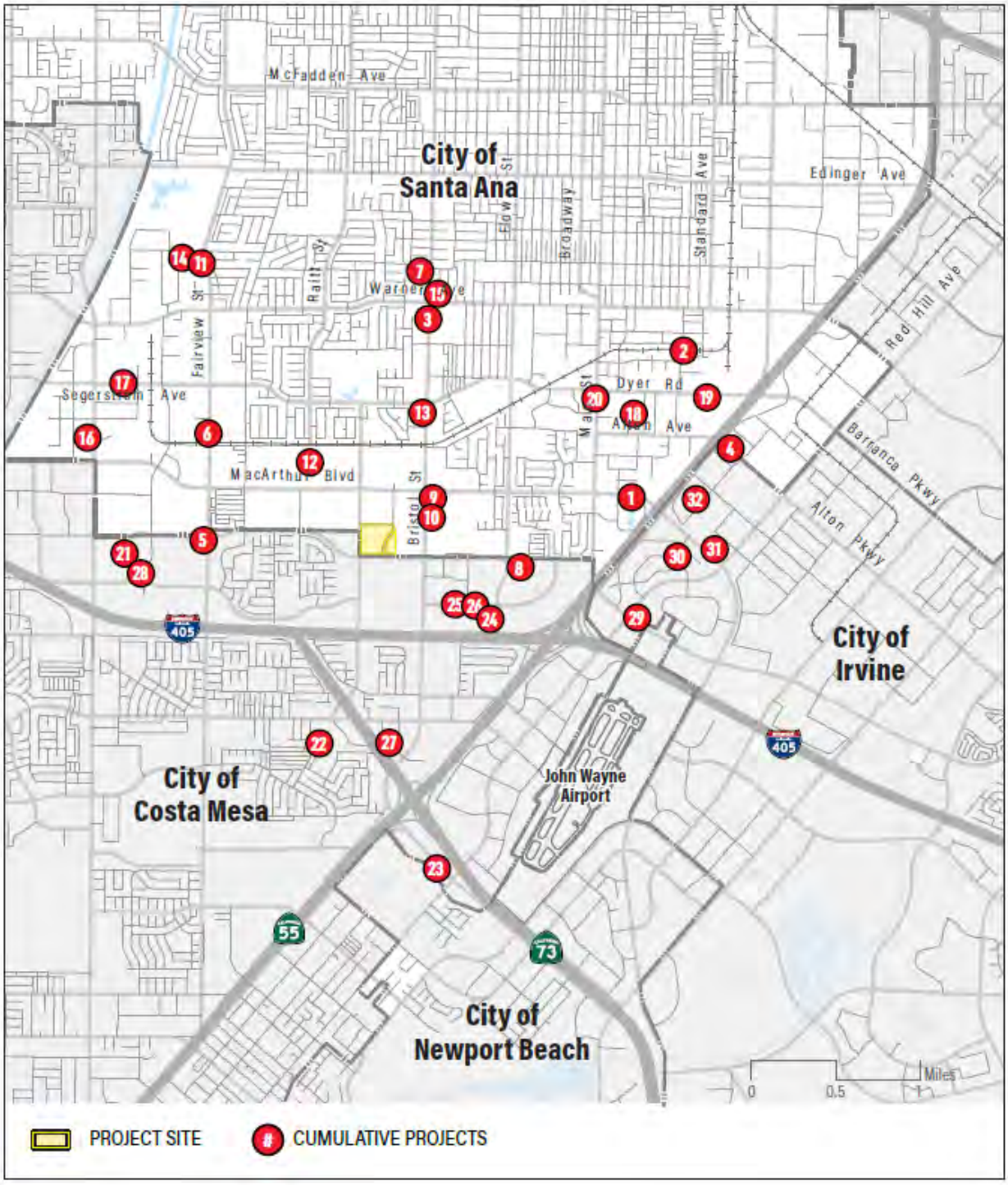
Map ID	Project Name	Project Location	Project Description	Status
11	Harvard Warehouse	3010 W. Harvard Street	4,920 sf warehouse	Under Construction
12	Insand	2100 W. Alton Avenue	7,870 sf recreational facility	Building Plan Check
13	7 Leaves @ Bristol/Segerstrom	3000 S. Bristol Street	1,900 sf cafe with drive-thru	Under Construction
14	Covicon Industrial Building	3020 W. Harvard Street	14,500 sf industrial building	Building Plan Check
15	Starbucks	2235 S. Bristol Street	1,200 sf coffee shop with drive-thru	Development Project Review
16	Industrial Building	3100 S. Harbor Boulevard	Demolition of existing 51,000 sf office uses and construction of 162,656 sf industrial building with a 7,000 SF office	Building Plan Check
17	Industrial Building Addition	3501 W. Segerstrom Avenue	Addition of 17,808 sf industrial uses	Building Plan Check
18	IDS Real Estate Industrial Building	300 E. Dyer Road	Demolition of existing 92,966 sf industrial building and construction of 97,938 sf industrial building	Development Project Review
19	Park 55 Development	1221 E. Dyer Road	Demolition of existing 157,000 sf industrial buildings and construction of 176,000 sf industrial building	Development Project Review
20	Tommy's Car Wash	2860 S. Main Street	Demolition of 2,300 sf commercial building and construction of 1,706 sf car wash	Development Project Review
City of Costa Mesa				
21	Anduril Headquarters	1375 Sunflower Street	665,000 sf office	Constructed
22	DeNova Homes	929 Baker Street	56 single-family residences	Constructed
23	Audi Fletcher Jones Auto Dealership	1275 Bristol Street	50,971 sf automotive dealership and service center	Constructed

Table 4-1: List of Related Projects

Map ID	Project Name	Project Location	Project Description	Status
24	Halcyon House (Symphony Apartments)	585-595 Anton Boulevard	393 apartments and 4,104 sf retail uses	Constructed
25	Orange County Museum of Art	3333 Avenue of the Arts	66,750 sf art museum	Constructed
26	Avenue of the Arts Hotel	3350 Avenue of the Arts	150-room hotel	Constructed
27	The Plant	2972 Century Place	62 apartments and 19,479 sf commercial uses (inclusive of 5,230 sf retail, 3,000 sf restaurant, 2,315 sf food stalls, 6,364 sf live/work office uses, and 2,570 sf offices)	Unknown
28	Hive Live	3333 Susan Street	Demolition of existing 172,176 sf office and construction of 1,050 apartments and 2,500 sf retail uses	Unknown
City of Irvine				
29	0086961-PPA	18011 Mitchell South	Tesla collision repair center	CUP
30	00860930-PPA	17731 Cowan	56,242 sf office/research and development uses and 3,000 sf warehouse	Unknown
31	0855935-PCPU	1340 Reynolds Avenue	3,636 sf escape room	CUP
32	00907795-PPA	1062 McGaw Avenue	120,000 sf warehouse and 4,600 sf office	Pre-application Review

sf = square feet

Sources: City of Santa Ana, 2024, Major Planning Projects and Monthly Development Reports, available at: https://www.santa-ana.org/major-planning-projects-and-monthly-development-project-reports/, accessed December 2024; City of Costa Mesa, 2024 Approved Plans for City, available at: https://www.costamesaca.gov/government/departments-and-divisions/economic-and-development-services/planning/approved-plans-for-city, accessed December 2024; City of Irvine Planning Department, 2024, Current Discretionary Projects Under Review, available at: https://legacy.cityofirvine.org/civica/filebank/blobdload.asp?BlobID=11038, accessed December 2024.



Michael Baker INTERNATIONAL

NOT TO SCALE

THE VILLAGE SANTA ANA SPECIFIC PLAN PROJECT

Related Projects

Figure 4-1

4.1 AIR QUALITY

This section evaluates the project's potential impacts on air quality. This section estimates the air pollutant emissions generated by construction and operation of the project and evaluates whether the project would conflict with or obstruct implementation of the air pollution reduction strategies set forth in the South Coast Air Quality Management District's (SCAQMD) *2022 Air Quality Management Plan*. The analysis of project-generated air emissions focuses on whether the project would cause an exceedance of an ambient air quality standard or SCAQMD significance thresholds. As the project pursues buildout of part of the City's GPU Land Use Plan, which was analyzed in the GPU PEIR, this section compares the project's impacts with the impacts identified in the GPU PEIR. The analysis in this section is based primarily on the information contained in the Air Quality, Greenhouse Gas Emissions, Construction Health Risk Assessment, and Energy Modeling Outputs (Air Quality and GHG Modeling Outputs) included as Appendix B.

4.1.1 REGULATORY FRAMEWORK

FEDERAL

The federal Clean Air Act (CAA) was first enacted in 1970 and amended in 1977 and 1990 for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity. The US Environmental Protection Agency (USEPA) is responsible for the implementation and enforcement of the CAA. It has set primary and secondary National Ambient Air Quality Standards (NAAQS) for ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable particulate matter or particulate matter 10 microns or smaller in diameter (PM_{10}), and fine particulate matter or particulate matter 2.5 microns or smaller in diameter ($PM_{2.5}$), and lead (Pb). Primary standards are those levels of air quality deemed necessary, with an adequate margin of safety, to protect public health. Table 4.1-1: Federal and California Ambient Air Quality Standards lists the current federal and State standards for regulated pollutants.

STATE

State Implementation Plan

The CAA Amendments require that states submit and implement a State Implementation Plan (SIP) for areas not meeting air quality standards. In California, the SIP is a collection of documents that set forth the State's strategies for achieving the NAAQS and California Ambient Air Quality Standards (CAAQS)—a compilation of new and previously submitted plans, programs (such as monitoring, modeling, and permitting), district rules, state regulations, and federal controls. California Air Resources Board (CARB) is the lead agency for all purposes related to the SIP under State law. Local air districts are responsible for preparing and implementing air quality attainment plans for pollutants for which the local air district is in non-compliance, and the plans are incorporated into the SIP.

California Clean Air Act

The California Clean Air Act (CCAA), enacted in 1988, developed the CAAQS, which are generally more stringent than the NAAQS. The CCAA requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with the CAAQS. These standards, included in the NAAQS in Table 4.1-1: Federal and California Ambient Air Quality Standards, apply to more pollutants than the NAAQS. In addition to the criteria pollutants, the CAAQS have been established for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride.

Table 4.1-1: Federal and California Ambient Air Quality Standards

Pollutant	Averaging Time	California[a]		Federal[b]	
		Standard[c]	Attainment Status	Standards[c,d]	Attainment Status
Ozone (O_3)	1 Hour	0.09 ppm (180 $\mu g/m^3$)	**Nonattainment**	N/A	N/A[e]
	8 Hours	0.070 ppm (137 $\mu g/m^3$)	**Nonattainment**	0.070 ppm (137 $\mu g/m^3$)	**Nonattainment**
Respirable Particulate Matter (PM_{10})	24 Hours	50 $\mu g/m^3$	**Nonattainment**	150 $\mu g/m^3$	Attainment/ Maintenance
	Annual Arithmetic Mean	20 $\mu g/m^3$	**Nonattainment**	N/A	N/A
Fine Particulate Matter ($PM_{2.5}$)	24 Hours	No Separate State Standard		35 $\mu g/m^3$	**Nonattainment**
	Annual Arithmetic Mean	12 $\mu g/m^3$	**Nonattainment**	12.0 $\mu g/m^3$	**Nonattainment**
Carbon Monoxide (CO)	8 Hours	9.0 ppm (10 mg/m^3)	Attainment	9 ppm (10 mg/m^3)	Attainment/ Maintenance
	1 Hour	20 ppm (23 mg/m^3)	Attainment	35 ppm (40 mg/m^3)	Attainment/ Maintenance
Nitrogen Dioxide (NO_2)[e]	Annual Arithmetic Mean	0.030 ppm (57 $\mu g/m^3$)	N/A	53 ppb (100 $\mu g/m^3$)	Attainment/ Maintenance
	1 Hour	0.18 ppm (339 $\mu g/m^3$)	Attainment	100 ppb (188 $\mu g/m^3$)	Attainment/ Maintenance
Lead (Pb)[f,g]	30 days Average	1.5 $\mu g/m^3$	Attainment	N/A	N/A
	Calendar Quarter	N/A	N/A	1.5 $\mu g/m^3$	**Nonattainment**
	Rolling 3-Month Average	N/A	N/A	0.15 $\mu g/m^3$	**Nonattainment**
Sulfur Dioxide (SO_2)[h]	24 Hours	0.04 ppm (105 $\mu g/m^3$)	Attainment	0.14 ppm (for certain areas)	Unclassified/ Attainment
	3 Hours	N/A	N/A	N/A	N/A
	1 Hour	0.25 ppm (655 $\mu g/m^3$)	Attainment	75 ppb (196 $\mu g/m^3$)	N/A
	Annual Arithmetic Mean	N/A	N/A	0.30 ppm (for certain areas)	Unclassified/ Attainment

Table 4.1-1: Federal and California Ambient Air Quality Standards

Pollutant	Averaging Time	California[a]		Federal[b]	
		Standard[c]	Attainment Status	Standards[c,d]	Attainment Status
Visibility-Reducing Particles[l]	8 Hours (10 a.m. to 6 p.m., PST)	Extinction coefficient = 0.23 km@<70% RH	Unclassified	**No Federal Standards**	
Sulfates	24 Hour	25 μg/m^3	Attainment		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 μg/m^3)	Unclassified		
Vinyl Chloride[f]	24 Hour	0.01 ppm (26 μg/m^3)	N/A		

Notes: μg/m^3 = micrograms per cubic meter; ppm = parts per million; ppb = parts per billion; km = kilometer; RH = relative humidity; PST = Pacific Standard Time; N/A = Not Applicable

[a] California standards for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1- and 24-hour), NO_2, PM_{10}, $PM_{2.5}$, and visibility reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] National standards (other than O_3, PM_{10}, $PM_{2.5}$, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 μg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

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

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

[e] 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 ppb. California standards are in 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.

[f] CARB has identified Pb 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.

[g] 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 ppb. California standards are in 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.

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

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

Source: California Air Resources Board, May 4, 2016, Ambient Air Quality Standards Chart, available at: https://www.icpds.com/assets/California-Air-Resources-Board-2016-1642792255.pdf.

While the USEPA is the federal agency designated to administer air quality regulations, CARB is the State equivalent in the California Environmental Protection Agency. As with the CAA, the CCAA also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas designated as nonattainment are those that do not meet (or that contribute to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant. Areas designated as attainment are those that meet the national primary or secondary ambient air quality standard for the pollutant.

Title 13 California Code of Regulations, Sections 2449 and 2485

Title 13 California Code of Regulations (CCR) Section 2449 establishes regulations to reduce nitrogen oxides (NO_x); diesel particulate matter (DPM), which is diesel engine exhaust that contains solid material; and other criteria pollutant emissions from in-use off-road diesel-fueled vehicles. Title 13 CCR Section 2449(d)(2) describes the idling limit requirements for vehicles and engines; no vehicle or engine may idle for more than five consecutive minutes.

Title 13 CCR Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling, establishes idling restrictions, emissions standards, and other requirements for heavy-duty diesel engines to reduce public exposure to DPM and other air contaminants. Specifically, diesel-fueled commercial motor vehicles with gross vehicle weight ratings greater than 10,000 pounds cannot idle the vehicle's primary diesel engine longer than five minutes at any location.[1]

REGIONAL

South Coast Air Quality Management District

The SCAQMD is primarily responsible for planning, implementing, and enforcing air quality standards for the South Coast Air Basin (SCAB), which is a subregion within the western portion of the SCAQMD. The SCAQMD also regulates portions of the Salton Sea Air Basin and Mojave Desert Air Basin within Riverside County. The SCAB is designated non-attainment for O_3 8-hour NAAQS and for $PM_{2.5;}$ the Los Angeles County portion of the SCAB is also designated as non-attainment for Pb NAAQS. The SCAB is also designated non-attainment for the O_3, PM_{10}, and $PM_{2.5}$ CAAQS. The SCAB is designated unclassifiable or in attainment for all other federal and State standards.

Air Quality Management Plan

The SCAQMD is required to monitor air pollutant levels to ensure that State and federal air quality standards are met and, if they are not met, to develop strategies to meet the standards. Under State law, the SCAQMD is required to prepare an AQMP for pollutants for which its jurisdiction is in noncompliance.

To meet the NAAQS and CAAQS, the SCAQMD has adopted a series of AQMPs that serve as a regional blueprint to develop and implement an emissions reduction strategy that will bring the SCAB into attainment with the standards in a timely manner. The most significant air quality challenge in the SCAB is to reduce nitrogen oxides (NO_X) emissions to meet the O_3 standard deadline for the non-Coachella Valley portion of the SCAB, as NO_X plays a critical role in the creation of O_3. The 2022 AQMP, adopted by the SCAQMD's Governing Board on December 2,

[1] California Air Resources Board, 2024, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling, available at: https://ww2.arb.ca.gov/our-work/programs/atcm-to-limit-vehicle-idling, accessed May 2024.

2022, includes strategies to ensure the SCAQMD does its part to further its ability to reduce NO_X emissions as expeditiously as practicable but no later than the statutory attainment deadline of August 3, 2038, for the SCAB and August 3, 2033, for the Riverside County portion of the Salton Sea Air Basin to meet the 2015 federal O_3 standards.[2] The 2022 AQMP builds on the measures already in place from the previous AQMPs and includes a variety of additional strategies, such as regulation, accelerated deployment of available cleaner technology, best management practices, co-benefits from existing programs, incentives, and other CCAA measures to meet the 8-hour O_3 standard. Since NO_X emissions also lead to the formation of $PM_{2.5}$, the NO_X reductions needed to meet the O_3 standards will likewise lead to improvement of $PM_{2.5}$ levels and attainment of annual $PM_{2.5}$ standards.[3]

The SCAQMD's strategy to meet the NAAQS and CAAQS distributes the responsibility for emissions reductions across federal, State, and local levels and industries. Most of these emissions are from heavy-duty trucks, ships, and other State and federally regulated mobile source emissions, the majority of which are beyond SCAQMD's control. The SCAQMD has limited control over truck emissions with rules, such as Rule 1196. The 2022 AQMP is composed of stationary and mobile source emissions reductions, including traditional regulatory control measures, incentive-based programs, co-benefits from climate programs, mobile source strategies, and reductions from federal sources (e.g., aircraft, locomotives, and ocean-going vessels). These strategies are to be implemented in partnership with CARB and USEPA. The SCAQMD will not meet the standard without significant federal action. In addition to federal action, the 2022 AQMP relies on substantial future development of advanced technologies to meet the standards, including the transition to zero- and low-emission technologies. Of the needed NO_X emissions reductions, 46 percent will come from federal actions, 34 percent from CARB actions, and 20 percent will come directly from SCAQMD actions.[4]

The 2022 AQMP also incorporates the transportation strategy and transportation control measures from Southern California Association of Governments' (SCAG) 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). A more detailed discussion of the 2020-2045 RTP/SCS is included below.

CEQA Air Quality Handbook

The SCAQMD published the *CEQA Air Quality Handbook*, which was approved by the SCAQMD Governing Board in 1993. The *CEQA Air Quality Handbook* guides local government agencies and consultants in preparing air quality assessments for environmental documents required by CEQA. With the help of the *CEQA Air Quality Handbook*, local land use planners and other consultants can analyze and document how proposed and existing projects affect air quality and fulfill the requirements of the CEQA review process. The SCAQMD is in the process of developing an *Air Quality Analysis Guidance Handbook* to replace the current *CEQA Air Quality Handbook*.

[2] South Coast Air Quality Management District, 2022, Air Quality Management Plan, available at: https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=16.

[3] Ibid.

[4] Ibid.

Rules and Regulations

The SCAQMD has adopted several rules and regulations to regulate sources of air pollution in the SCAB and help achieve air quality standards for land use development projects.[5] The following rules apply to the project:

- *Rule 203 – Permit to Operate:* This rule pertains to the requirements for obtaining and maintaining permits to operate equipment that may emit air contaminants.
- *Rule 401 – Visible Emissions:* This rule states that a person shall not discharge from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour, which is (1a) as dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or (2a) of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in (1a). Additionally, a person shall not discharge into the atmosphere from equipment for melting, heating, or holding asphalt or coal tar pitch for on-site roof construction or repair; or from diesel pile driving hammers; any air contaminant for a period or periods aggregating more than three minutes in any one hour, which is (1b) as dark or darker in shade as that designated No. 2 on the Ringelmann Chart, as published by the United States Bureau of Mines, or (2b) of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in (1b). This rule does not apply to asphalt pavement heaters or abrasive blasting operations.
- *Rule 402 – Nuisance:* This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material, which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- *Rule 403 – Fugitive Dust:* This rule requires projects to prevent, reduce, or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to a project property line, restricts the net PM_{10} emissions to less than 50 micrograms per cubic meter ($\mu g/m^3$), and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures (identified in the tables within the rule). Best available control measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers, and/or ceasing all activities. Finally, a contingency plan may be required if so determined by the USEPA.
- *Rule 431.2 – Sulfur Content of Liquid Fuels*: This rule focuses on the reduction of sulfur content in liquid fuels, aiming to minimize sulfur dioxide emissions.
- *Rule 445 – Wood-Burning Devices*: This rule prohibits installation of wood-burning devices into any new development.
- *Rule 481 – Spray Coating Operations:* This rule addresses the limitations on emissions of sulfur compounds from various sources.

[5] South Coast Air Quality Management District, 2024, South Coast AQMD Rule Book, available at: https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book.

- *Rule 1108 – Cutback Asphalt:* This rule regulates the emissions of volatile organic compounds (VOCs) from asphalt roofing operations.
- *Rule 1113 – Architectural Coatings*: This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.
- *Rule 1138 – Control of Emissions from Restaurant Operations*: This rule specifies PM and VOC emissions and odor control requirements for commercial cooking operations that use chain-driven charbroilers to cook meat.
- *Rule 1143 – Consumer Paint Thinners and Multi-Purpose Solvents:* This rule aims to reduce VOC emissions from consumer paint thinners and multi-purpose solvents.
- *Rule 1146.2 – Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters*: This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_X emissions from natural gas-fired water heaters, boilers, and process heaters as defined in this rule.
- *Rule 1186 – PM_{10} Emissions from Paved and Unpaved Roads, and Livestock Operations:* This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM_{10} emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).
- *Rule 1186.1 – Less-Polluting Sweepers*: This rule requires certain public and private sweeper fleet operators to use alternative-fuel or less-polluting sweepers to reduce air toxic and criteria pollutant emissions.
- *Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities:* This rule requires owners and operators of any demolition or renovation activity and the associated disturbance of asbestos-containing materials, any asbestos storage facility, or any active waste disposal site to implement work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials.
- Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines: This rule applies to stationary compression ignition engines greater than 50 brake horsepower and sets limits on emissions and operating hours. In general, new stationary emergency standby diesel-fueled engines greater than 50 brake horsepower are not permitted to operate more than 50 hours per year for maintenance and testing.

Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 and 2024-2050)

SCAG is the regional planning agency that implements the 2020-2045 RTP/SCS, referred to as Connect SoCal, for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and addresses regional issues relating to transportation, the economy, community development, and the environment. SCAG coordinates with various air quality and transportation stakeholders in Southern California to ensure compliance with the federal and State air quality requirements. Pursuant to California Health and Safety Code Section 40460, SCAG has the responsibility of preparing and approving the portions of the AQMP relating to the regional demographic projections and integrated regional land use, housing, employment, and

transportation programs, measures, and strategies. Connect SoCal includes transportation programs, measures, and strategies generally designed to reduce vehicle miles traveled (VMT), which are contained in the 2022 AQMP. The SCAQMD combines its portion of the AQMP with measures prepared by SCAG.[6] The Transportation Control Measures, included as Appendix IV-C of the 2022 AQMP, are based on Connect SoCal.

The 2022 AQMP forecasts the 2037 emissions inventories ''with growth'' based on Connect SoCal. The region is projected to see a 12-percent growth in population, a 17-percent growth in housing units, an 11-percent growth in employment, and a 5-percent growth in VMT between 2018 and 2037. Despite regional growth in the past, air quality has improved substantially over the years, primarily due to the effects of air quality control programs at the local, State, and federal levels.[7]

The most recent 2024-2050 RTP/SCS, referred to as Connect SoCal 2024, was adopted by SCAG's Regional Council in April 2024. Connect SoCal 2024 outlines a vision for a more resilient and equitable future, with investment, policies, and strategies for achieving the region's shared goals through 2050. Connect SoCal 2024 sets forth a forecasted growth and regional development pattern based on population, household, and employment growth projections for the SCAG region by 2050, which, when integrated with the transportation network, measures, and policies, will achieve targets for greenhouse gas (GHG) emissions reductions consistent with regional goals. In addition, Connect SoCal 2024 is supported by Regional Strategic Investments, Regional Planning Policies, and Implementation Strategies, a combination of transportation and land use strategies that outline how the region can achieve California's GHG-emission-reduction goals and federal Clean Air Act requirements.[8]

While SCAG has adopted Connect SoCal 2024, CARB has not yet certified it or approved SCAG's GHG emissions reduction calculations. Furthermore, the GPU PEIR analyzed consistency with Connect SoCal. As such, to be consistent with the GPU PEIR, this Supplemental EIR analyzes the project's consistency with the Connect SoCal. Nevertheless, the project is a mixed-use development located in a High Quality Transit Area, integrating different land uses and creating a walkable multi-modal community, which would ensure the project's consistency with the strategies in Connect SoCal 2024. These strategies include enhancing the availability, access, and efficiency of different modes of mobility such as transit, walking, bicycling to better serve people in their communities and integrating alternative fuel technology systems to help minimize negative environmental impacts associated with vehicle use.[9]

LOCAL

City of Santa Ana General Plan Update

The City's GPU includes RRs, goals, and policies related to air quality, including the following:

Regulatory Requirement

RR AQ-1: New buildings are required to achieve the current California Building Energy Efficiency Standards (Title 24, Part 6) and California Green Building Standards Code (CALGreen Code)

6 South Coast Air Quality Management District, 2022, 2022 Air Quality Management Plan, available at https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=16.

7 Ibid.

8 Southern California Association of Governments, 2024, Connect SoCal: A Plan for Navigating to a Brighter Future (2024-2050 Regional Transportation Plan/Sustainable Communities Strategy), available at: https://scag.ca.gov/sites/main/files/file-attachments/23-2987-connect-socal-2024-final-complete-040424.pdf?1714175547.

9 Ibid.

(Title 24, Part 11). The 2019 Building Energy Efficiency Standards became effective January 1, 2020. The Building and Energy Efficiency Standards and CALGreen Code are updated tri-annually with a goal to achieve net zero buildings energy for 2030.

RR AQ-2: Construction activities will be conducted in compliance with California Code of Regulations, Title 13, Section 2449, which requires that nonessential idling of construction equipment is restricted to five minutes or less.

RR AQ-3: Construction activities will be conducted in compliance with any applicable South Coast Air Quality Management District rules and regulations, including but not limited to:

- Rule 403, Fugitive Dust, for controlling fugitive dust and avoiding nuisance.
- Rule 402, Nuisance, which states that a project shall not "discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property."
- Rule 1113, which limits the volatile organic compound content of architectural coatings.
- Rule 1466, Soil Disturbance. Projects that involve earth-moving activities of more than 50 cubic yards of soil with applicable toxic air contaminants are subject to this rule.

Conservation Element

Goal CN-1 Air Quality and Climate: Protect air resources, improve regional and local air quality, and minimize the impacts of climate change.

- *Policy CN-1.3 Education*: Promote efforts to educate businesses and the general public about air quality standards, reducing the urban heat island effect, health effects from poor air quality and extreme heat, and best practices they can make to improve air quality and reduce greenhouse gas emissions.
- *Policy CN-1.4 Development Standards*: Support new development that meets or exceeds standards for energy-efficient building design and site planning.
- *Policy CN-1.5 Sensitive Receptor Decisions*: Study the impacts of stationary and non-stationary emission sources on existing and proposed sensitive uses and opportunities to minimize health and safety risks. Develop and adopt new regulations avoiding the siting of facilities that potentially emit increased pollution near sensitive receptors within environmental justice area boundaries.
- *Policy CN-1.6 New and Infill Residential Development*: Promote development that is mixed use, pedestrian friendly, transit oriented, and clustered around activity centers.
- *Policy CN-1.7 Housing And Employment Opportunities*: Improve the city's jobs/housing balance ratio by supporting development that provides housing and employment opportunities to enable people to live and work in Santa Ana.
- *Policy CN-1.8 Promote Alternative Transportation*: Promote use of alternate modes of transportation in the City of Santa Ana, including pedestrian, bicycling, public transportation, car sharing programs, and emerging technologies.
- *Policy CN-1.12 Sustainable Infrastructure*: Encourage the use of low or zero emission vehicles, bicycles, nonmotorized vehicles, and car-sharing programs by supporting new

and existing development that includes sustainable infrastructure and strategies such as vehicle charging stations, drop-off areas for ride-sharing services, secure bicycle parking, and transportation demand management programs.

- *Policy CN-1.14 Transportation Demand Management*: Require and incentivize projects to incorporate transportation demand management techniques.
- *Policy CN-1.18 Public Investment in Parks*: Coordinate with park renovation and new development to address air quality and climate impacts by reducing the heat island affect by providing green infrastructure and shade, and reducing air pollution by providing vegetation that removes pollutants and air particles.

Goal CN-3 Energy Resources: Reduce consumption of and reliance on nonrenewable energy, and support the development and use of renewable energy sources.

- *Policy CN-3.3 Development Patterns:* Promote energy-efficient development patterns by clustering mixed use developments and compatible uses adjacent to public transportation.

Mobility Element

Goal M-3 Active Transportation: A safe, balanced, and integrated network of travelways for nonmotorized modes of transportation that connects people to activity centers, inspiring healthy and active lifestyles.

- *Policy M-3.7 Complete Streets Design*: Enhance streets to facilitate safe walking, bicycling, and other nonmotorized forms of transportation through community participatory design.

Goal M-4 Transportation, Land Use, and Design: Transportation, Land Use, and Design Coordinated transportation planning efforts with land use and design strategies that encourage sustainable development and achieve broader community goals.

- *Policy M-4.1 Intense Development Areas*: Program multimodal transportation and public realm improvements that support new development in areas along transit corridors and areas planned for high intensity development.
- *Policy M-4.2 Project Review*: Encourage active transportation, transit use, and connectivity through physical improvements and public realm amenities identified during the City's Development Review process.
- *Policy M-4.3 Transportation Management*: Coordinate with OCTA, employers, and developers to utilize TDM (transportation demand management) strategies and education to reduce vehicle trips and parking demands.
- *Policy M-4.5 Land Use Development Design*: Ensure that building placement and design features create a desirable and active streetscape.
- *Policy M-4.6 Roadway Capacity Alternatives*: Promote reductions in automobile trips and vehicle miles traveled by encouraging transit use and nonmotorized transportation as alternatives to augmenting roadway capacity.
- *Policy M-4.7 Parking*: Explore and implement a flexible menu of parking options and other strategies to efficiently coordinate the response to parking demands.
- *Policy M-4.9 Air Pollution Mitigation*: Consider land use, building, site planning, and technology solutions to mitigate exposure to transportation related air pollution.

Goal M-5 Sustainable Transportation Design: A transportation system that is attractive, safe, state-of-the-art, and supports community, environmental, and conservation goals.

- *Policy M-5.4 Green Streets*: Leverage opportunities along streets and public rights-of-way to improve water quality through use of landscaping, permeable pavement, and other best management practices.
- *Policy M-5.6 Clean Fuels and Vehicles*: Encourage the use of alternative fuel vehicles and mobility technologies through the installation of supporting infrastructure.

Land Use Element

Goal LU-1 Growing Responsibly: Provide a land use plan that improves quality of life and respects our existing community.

- *Policy LU-1.5 Diverse Housing Types*: Incentivize quality infill residential development that provides a diversity of housing types and accommodates all income levels and age groups.
- *Policy LU-1.6 Transit Oriented Development*: Encourage residential mixed-use development, within the City's District Centers and Urban Neighborhoods, and adjacent to high quality transit.

Goal LU-2 Land Use Needs: Provide a balance of land uses that meet Santa Ana's diverse needs.

- *Policy LU-2.5 Benefits of Mixed Use*: Encourage infill mixed-use development at all ranges of affordability to reduce vehicle miles travelled, improve jobs/housing balance, and promote social interaction.
- *Policy LU-2.10 Smart Growth*: Focus high density residential in mixed-use villages, designated planning focus areas, Downtown Santa Ana, and along major travel corridors.

Goal LU-3 Compatibility of Uses: Preserve and improve the character and integrity of existing neighborhoods and districts.

- *Policy LU-3.8 Sensitive Receptors*: Avoid the development of industry and sensitive receptors in close proximity to each other that could pose a hazard to human health and safety, due to the quantity, concentration, or physical or chemical characteristics of the hazardous materials utilized, or the hazardous waste an operation may generate or emit.
- *Policy LU-3.9 Noxious, Hazardous, Dangerous, and Polluting Uses*: Improve the health of residents, students, and workers by limiting the impacts of construction activities and operation of noxious, hazardous, dangerous, and polluting uses that are in close proximity to sensitive receptors, with priority given to discontinuing such uses within environmental justice areas boundaries.
- *Policy LU-3.11 Air Pollution Buffers*: Promote landscaping and other buffers to separate existing sensitive uses from rail lines, heavy industrial facilities, and other emissions sources. As feasible, apply more substantial buffers within environmental justice area boundaries.
- *Policy LU-3.12 Indoor Air Quality*: Require new sensitive land uses proposed in areas with high levels of localized air pollution to achieve good indoor air quality through landscaping, ventilation systems, or other measures.

Goal LU-4 Complete Communities: Support a sustainable Santa Ana through improvements to the built environment and a culture of collaboration.

- *Policy LU-4.1 Complementary Uses*: Promote complete neighborhoods by encouraging a mix of complementary uses, community services, and people places within a walkable area.
- *Policy LU-4.3 Sustainable Land Use Strategies*: Encourage land uses and strategies that reduce energy and water consumption, waste and noise generation, soil contamination, air quality impacts, and light pollution.
- *Policy LU-4.5 VMT Reduction*: Concentrate development along high-quality transit corridors to reduce vehicle miles traveled (VMT) and transportation related carbon emissions.

Open Space Element

Goal OS-2 Healthy, Safe and Inclusive Opportunities: Provide welcoming, inclusive, safe, and healthy parks, recreation facilities, and activities to serve Santa Ana residents regardless of age, ability, or income.

- *Policy OS-2.5 Air Quality and Heat*: Coordinate park renovation and development to address air quality and climate impacts by reducing heat island effect by providing green infrastructure and shade, and reducing air pollution by providing vegetation that removes pollutants and air particles.

Goal OS-3 Park Maintenance, Stewardship, and Sustainability: Maintain and manage parks, recreation facilities, trails and open space to sustain City assets and support safe use.

- *Policy OS-3.5 Landscaping*: Encourage the planting of native and diverse tree species in public and private spaces to reduce heat island effect, reduce energy consumption, and contribute to carbon mitigation.
- *Policy OS-3-6 Sustainable Parks and Facilities*: Integrate drought tolerant or native plantings, water-wise irrigation, design and maintenance efficiencies, and sustainable development practices to reduce water use and energy consumption.

4.1.2 ENVIRONMENTAL SETTING

SOUTH COAST AIR BASIN

Climate

The City of Santa Ana (City) is located in the SCAB, a 6,745-square-mile area bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east; and San Diego County to the south. The SCAB includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the Coachella Valley area in Riverside County. The SCAQMD monitors and regulates local air quality in the SCAB.

The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. The regional climate in the SCAB is semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. The usually mild climatological pattern is interrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds. The average annual temperature varies little throughout the SCAB, averaging 75 degrees Fahrenheit (°F). However, with a less-pronounced oceanic influence, the eastern inland portions of the SCAB show greater variability in annual minimum

and maximum temperatures. All portions of the SCAB have had recorded temperatures over 100°F in recent years.

The SCAB experiences a persistent temperature inversion, meaning an increase in temperature with an increase in altitude, as a result of the North Pacific High.[10] This inversion limits the vertical dispersion of air contaminants, trapping a layer of stagnant air near the ground, where it is then further loaded with pollutants. As the sun warms the ground and the lower air layer, the temperature of the lower air layer approaches the temperature of the base of the inversion (upper) layer until the inversion layer finally breaks, allowing vertical mixing with the lower layer. These inversions cause haziness, which is caused by moisture, suspended dust, and a variety of chemical aerosols emitted by trucks, automobiles, furnaces, and other sources.

The height of the inversion is important in determining pollutant concentration. When the inversion is approximately 2,500 feet above sea level, the sea breezes carry the pollutants inland to escape over the mountain slopes or through the passes. At a height of 1,200 feet, the terrain prevents the pollutants from entering the upper atmosphere, resulting in a settlement in the foothill communities. Below 1,200 feet, the inversion puts a tight lid on pollutants, concentrating them in a shallow layer over the entire coastal basin. Usually, inversions are lower before sunrise than during the day. Mixing heights for inversions are lower in the summer and more persistent, being partly responsible for the high levels of O_3 observed during summer months in the SCAB. Smog in Southern California is generally the result of these temperature inversions combining with coastal day winds and local mountains to contain the pollutants for long periods of time, allowing them to form secondary pollutants by reacting with sunlight. The SCAB has a limited ability to disperse these pollutants due to typically low wind speeds.

The combination of stagnant wind conditions and low inversions in the SCAB produces the greatest pollutant concentrations. Ambient air pollutant concentrations are lowest on days of no inversion or high wind speeds, while air pollutants generated in urbanized areas are transported predominantly onshore into Riverside and San Bernardino Counties during periods of low inversions and low wind speeds. In the winter, the greatest pollution problem is the accumulation of CO and NO_X due to low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO_X to form photochemical smog.

The City experiences a mild Southern California coastal climate with average high temperatures between 68°F and 83°F, and average low temperatures between 46°F to 65°F. The area also experiences an average of up to 3.0 inches of precipitation per month, with the most precipitation occurring in the month of February.[11]

Ambient Air Quality

Air pollutant emissions within the SCAB are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at a specific location and are often identified by an exhaust vent or stack (e.g., boilers or combustion equipment that produce electricity or generate heat). Area sources are widely distributed and include sources, such as residential and commercial water heaters, painting operations, lawn mowers, and landfills. Mobile sources refer to emissions from motor

[10] The North Pacific High is a semi-permanent, subtropical anticyclone located in the northeastern portion of the Pacific Ocean.

[11] Weather Spark, 2024, Average Weather in Los Angeles, California, United States, available at: https://weatherspark.com/y/1899/Average-Weather-in-Santa-Ana-California-United-States-Year-Round, accessed January 2024.

vehicles and are classified as either on-road or off-road. On-road sources may come from vehicles on roadways and highways, while off-road sources may come from aircraft, ships, trains, and construction equipment. Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles.

Criteria Pollutants

Criteria pollutants are pollutants for which national and State criteria and standards have been promulgated and which are most relevant to current air quality planning and regulation in the SCAB. Criteria pollutants include CO, NO_2, O_3, PM_{10}, $PM_{2.5}$, SO_2, and Pb, which are described below. SCAB is currently in nonattainment for NAAQS 8-hour O_3, $PM_{2.5}$, and Pb, and CAAQS O_3, PM_{10}, and $PM_{2.5}$.

Carbon Monoxide (CO)

Carbon monoxide is a colorless, odorless gas primarily emitted from combustion processes and motor vehicles due to incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO is a localized pollutant that is found in high concentrations only near its source; therefore, elevated concentrations are usually only found near areas of high traffic volumes. Other sources of CO include the incomplete combustion of petroleum fuels at power plants and fuel combustion from wood stoves and fireplaces during the winter. CO causes several health problems, including the aggravation of some heart diseases, reduced tolerance for exercise, impaired mental function, and impaired fetal development. At high levels of exposure, CO reduces the amount of oxygen in the blood, which may be fatal.

Nitrogen Dioxide (NO_2)

Nitrogen dioxide is a nitrogen oxide compound produced by the combustion of fossil fuels, such as in both gasoline and diesel-powered internal combustion engines and from point sources, such as power plants. NO_2 (often used interchangeably with NO_X) absorbs blue light, gives a reddish-brown cast to the atmosphere, and reduces visibility. The principal form of NO_X produced by combustion is nitric oxide, which reacts rapidly to form NO_2, creating the mixture of nitric oxide and NO_2. NO_2 is an acute irritant that can aggravate respiratory illnesses and symptoms. NO_2 may have negative impacts on those with existing illnesses, such as chronic pulmonary fibrosis and an increase in bronchitis in young children.

Ozone (O_3)

Ozone is a gas that is formed when VOCs and NO_X, both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air which can contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. As a highly reactive molecule, O_3 readily combines with many different components of the atmosphere. Consequently, high O_3 levels tend to occur only while high VOC and NO_X levels are present to sustain the formation process, and O_3 levels rapidly decline once the precursors have been depleted. O_3 is considered a regional pollutant because its reactions occur on a regional rather than local scale. In addition, because O_3 requires sunlight to form, significant concentrations occur between the months of April and October. O_3 is a pungent, colorless, toxic gas with direct health effects on humans, including changes in breathing patterns, reduction of breathing capacity, increased susceptibility to infections, inflammation of lung tissue, and some immunological changes. Groups most sensitive to ozone include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors.

Particulate Matter (PM_{10} and $PM_{2.5}$)

Particulate matter pollution consists of very small liquid and solid particles floating in the air (e.g., soot, dust, aerosols, fumes, and mists) that can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. PM_{10} and $PM_{2.5}$ consist of extremely small, suspended particles or droplets 10 microns and 2.5 microns or smaller in diameter, respectively. Man-made sources of PM_{10} are agricultural operations, industrial processes, combustion of fossil fuels, construction, demolition operations, and entrainment of road dust into the atmosphere. Natural sources of PM_{10} include windblown dust, wildfire smoke, and sea spray salt. Elevated levels of PM_{10} can cause respiratory irritation, reduced lung function, aggravation of cardiovascular disease, and cancer in individuals. $PM_{2.5}$ is generally associated with combustion processes, as well as formation in the atmosphere as a secondary pollutant through chemical reactions. $PM_{2.5}$ is more likely to penetrate deeply into the lungs and poses a health threat to all groups but particularly to the elderly, children, and those with respiratory problems. Elevated levels of $PM_{2.5}$ can cause respiratory stress, decreased lung function, and increased risk of long-term disease, such as chronic bronchitis, asthma, and lung cancer.

Sulfur Dioxide (SO_2)

Sulfur oxides (SO_X) are compounds of sulfur and oxygen molecules. SO_2 is classified in a group of highly reactive gases known as "oxides of sulfur." The largest sources of SO_2 emissions are from fossil fuel combustion at power plants and other industrial facilities. Other sources of SO_2 emissions include industrial processes, such as extracting metal from ore, and the burning of fuels with a high sulfur content by locomotives, large ships, and off-road equipment. SO_2 is linked to several adverse effects on the respiratory system, including aggravation of respiratory diseases, such as asthma and emphysema, and reduced lung function.

Lead (Pb)

Lead is a metal found naturally in the environment, as well as in manufactured products. Historically, the major sources of Pb emissions have been mobile and industrial sources. Since the 1970s, the USEPA has set national regulations to gradually reduce the Pb content in gasoline. As a result of phasing out leaded gasoline, metal processing is the current primary source of Pb emissions. The highest level of Pb in the air is generally found near Pb smelters. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers. The health impacts of Pb include behavioral and hearing disabilities in children and nervous system impairment.

Toxic Air Contaminants (TACs)

Toxic air contaminants are air pollutants that may cause or contribute to an increase in deaths or serious illness, or that may pose a present or potential hazard to human health. TACs are different than criteria pollutants because ambient air quality standards have not been established for TACs. One of the main sources of TACs in California is diesel engine exhaust that contains solid material known as DPM. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. Exposure to TACs may result in long-term health effects, such as cancer, birth defects, neurological damage, asthma, or genetic damage; or short-term acute effects, such as eye watering, respiratory irritation, runny nose, throat pain, and headaches. TACs are considered either carcinogenic or non-carcinogenic based on the nature of the health effects associated with exposure. For carcinogenic TACs, potential health impacts are evaluated in terms of overall relative risk expressed as excess cancer cases per one million exposed individuals. Non-

carcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. TAC impacts are described by carcinogenic risk and by chronic (i.e., long duration) and acute (i.e., severe but of short duration) adverse effects on human health.

Local Air Quality

The SCAQMD operates a network of air quality monitoring stations throughout the SCAB to measure and monitor ambient pollutant concentrations and air quality. Each monitoring station is located in a source receptor area (SRA), and the project site is located in SRA 17 (Central Orange County). The monitoring station representative of SRA 17 is the Anaheim-Pampas Lane station, located at 1630 West Pampas Lane, approximately 9.6 miles to the northwest of the project site. This monitoring station measures O_3, CO, NO_2, PM_{10}, and $PM_{2.5}$. SO_2 and Pb are not monitored at this station, and, since the area is designated unclassified/attainment for these pollutants, air quality data for these pollutants are not included in Table 4.1-2: Ambient Air Quality at the Anaheim-Pampas Lane Monitoring Station by Year, which reports ambient air quality measurements and indicates the number of days that each standard has been exceeded at the Anaheim-Pampas Lane station.

Table 4.1-2: Ambient Air Quality at the Anaheim-Pampas Lane Monitoring Station by Year

Pollutant	Primary Standard		Year	Maximum Concentration[a]	Number of Days State/Federal Std. Exceeded
	California	Federal			
Ozone (O_3)[b] (1-hour)	0.09 ppm for 1 hour	NA[e]	2020 2021 2022	0.142 ppm 0.089 ppm 0.102 ppm	6/2 0/0 1/0
Ozone (O_3)[b] (8-hour)	0.070 ppm for 8 hours	0.070 ppm for 8 hours	2020 2021 2022	0.098 ppm 0.068 ppm 0.077 ppm	16/15 0/0 1/1
Carbon Monoxide (CO)[b,c] (1-hour)	20 ppm for 1 hour	35 ppm for 1 hour	2020 2021 2022	2.312 ppm 2.058 ppm 2.371 ppm	0/0 0/0 0/0
Nitrogen Dioxide (NO_2)[b]	0.18 ppm for 1 hour	0.100 ppm for 1 hour	2020 2021 2022	0.070 ppm 0.067 ppm 0.053 ppm	0/0 0/0 0/0
Fine Particulate Matter ($PM_{2.5}$)[b,c]	No Separate Standard	35 µg/m^3 for 24 hours	2020 2021 2022	64.8 µg/m^3 54.4 µg/m^3 33.1 µg/m^3	NA/12 NA/10 NA/0
Coarse Particulate Matter (PM_{10})[b,c,d]	50 µg/m^3 for 24 hours	150 µg/m^3 for 24 hours[f]	2020 2021 2022	74.5 µg/m^3 63.3 µg/m^3 66.7 µg/m^3	5/0 1/0 1/0

Notes:
ppm = parts per million
µg/m^3 = micrograms per cubic meter
NA = Not Applicable
PM_{10} = particulate matter 10 microns in diameter or less
$PM_{2.5}$ = particulate matter 2.5 microns in diameter or less
* = Insufficient Data
[a] Maximum concentration is measured over the same period as the California Standards.
[b] Data collected from the Santa Clarita Monitoring Station located at 1630 West Pampas Lane, Anaheim CA 92802.
[c] PM_{10} and $PM_{2.5}$ exceedances are derived from the number of samples exceeded, not days.

Table 4.1-2: Ambient Air Quality at the Anaheim-Pampas Lane Monitoring Station by Year

Pollutant	Primary Standard		Year	Maximum Concentration[a]	Number of Days State/Federal Std. Exceeded
	California	Federal			

[d] PM_{10} exceedances are based on State thresholds established prior to amendments adopted on June 20, 2002.
[e] The Federal standard for 1-hour ozone was revoked in June 2005.
[f] The Federal standard for average PM_{10} was revoked in December 2006.
Sources: California Air Resources Board, ADAM Air Quality Data Statistics, available at: http://www.arb.ca.gov/adam/, accessed January 2024; California Air Resources Board, AQMIS2: Air Quality Data, available at: https://www.arb.ca.gov/aqmis2/aqdselect.php, accessed January 2024.

EXISTING ON-SITE EMISSIONS

Operational emissions are currently generated by existing uses on the project site. Table 4.1-3: Existing (Baseline) Operational Criteria Pollutant Emissions summarizes the emissions from the existing (baseline) condition. It should be noted that all existing on-site structures would be demolished during Phase 1 construction and for the purpose of this analysis, the existing (baseline) operational emissions would be deducted from the proposed project's emissions to calculate the net increase of emissions.

Table 4.1-3: Existing (Baseline) Operational Criteria Pollutant Emissions

Emission Source	Maximum Emissions (pounds per day)[a,b]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Summer Emissions						
Mobile	26.77	18.41	201.62	0.47	42.74	11.05
Area	5.36	0.07	7.80	0.00	0.01	0.01
Energy	0.10	1.85	1.55	0.01	0.14	0.14
Total Summer Emissions	**32.24**	**20.33**	**210.97**	**0.48**	**42.89**	**11.20**
Winter Emissions						
Mobile	26.46	20.03	189.90	0.45	42.74	11.05
Area	4.09	0.00	0.00	0.00	0.00	0.00
Energy	0.10	1.85	1.55	0.01	0.14	0.14
Total Winter Emissions	**30.64**	**21.89**	**191.46**	**0.46**	**42.88**	**11.19**

Notes:
VOC = volatile organic compounds; NO_x = nitrogen oxide; CO = carbon monoxide; SO_x = sulfur dioxide; PM_{10} = particulate matter 10 micrometers in diameter or less; $PM_{2.5}$ = fine particulate matter 2.5 micrometers or less in diameter
[a] Emissions were calculated using CalEEMod version 2022.1, as recommended by SCAQMD.
[b] The numbers may not add up precisely due to rounding.
Source: Refer to the Air Quality and GHG Modeling Outputs (Appendix B) for assumptions used in this analysis.

SENSITIVE RECEPTORS

Sensitive receptors are land uses associated with persons of a population that are more susceptible to the effects of air pollution than the general population. Sensitive receptors that are in proximity to localized sources of TACs and CO are of particular concern. The following population groups are most likely to be adversely affected by air pollution, as identified by the CARB: children under 14, elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. Land uses that may contain a high concentration of these sensitive population groups include residential areas, hospitals, day-care facilities, elder-care facilities, and elementary schools.

Sensitive receptors that may be affected by air quality impacts associated with project construction and operation include the following:

- Multi-family residences (communities of Versailles on the Lake and St. Albans) located immediately adjacent to the north of the project site; and
- Multi-family residences (Village Creek condominium community) to the west across Bear Street in the City of Costa Mesa, approximately 100 feet from the project site boundary.

4.1.3 THRESHOLDS OF SIGNIFICANCE

The significance thresholds used to evaluate the impacts of the proposed project on air quality are based on Appendix G of the State CEQA Guidelines. A project would have a significant impact related to air quality if it would:

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

AQ-2: 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.

AQ-3: Expose sensitive receptors to substantial pollutant concentrations.

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

To assist in answering the Appendix G threshold questions, the City utilizes the thresholds of significance established by the SCAQMD.

REGIONAL THRESHOLDS

The SCAQMD's numeric significance thresholds for impacts to regional air quality are presented in Table 4.1-4: South Coast Air Quality Management District Air Quality Significance Thresholds. There are separate thresholds for short-term construction and long-term operational emissions. A project with daily emissions below these thresholds is considered to have a less-than-significant effect on regional air quality from both a direct and cumulative impact standpoint.

Table 4.1-4: South Coast Air Quality Management District Air Quality Significance Thresholds

Phase	Pollutant (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Construction	75	100	550	150	150	55
Operational	55	55	550	150	150	55

Notes: VOC = volatile organic compounds; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter 10 microns in diameter or less; $PM_{2.5}$ = particulate matter 2.5 microns in diameter or less

Source: South Coast Air Quality Management District, 2023, Air Quality Significance Thresholds, available at: https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25, accessed March 2023.

LOCALIZED SIGNIFICANCE THRESHOLDS

The SCAQMD has also developed localized significance thresholds (LST) as a tool to assist lead agencies in analyzing localized air quality impacts to sensitive receptors in the vicinity of the project. The SCAQMD's LST Methodology outlines how to analyze localized impacts from common pollutants of concern, including NO_2, CO, PM_{10}, and $PM_{2.5}$.[12] Localized air quality impacts would occur if pollutant concentrations at sensitive receptors exceeded applicable NAAQS or CAAQS.

To minimize efforts, the SCAQMD developed mass rate lookup tables as a simple screening procedure. If a project's on-site emissions do not exceed the screening levels for any pollutant, it can be concluded that the project would not cause or contribute to an adverse localized air quality impact. Screening levels are provided for various distances (i.e., 82 feet [25 meters], 164 feet [50 meters], 328 feet [100 meters], 656 feet [200 meters], and 1,640 feet [500 meters]) between the project boundary and the nearest sensitive receptor and various project site acreages (i.e., 1, 2, and 5 acres).

HEALTH RISK THRESHOLDS

In order to determine whether or not a proposed project would cause a significant effect related to health risk, the impact must be determined by examining the types and levels of TACs generated by implementation of the project and the associated impacts on factors that affect air quality. While the final determination of significance thresholds is within the purview of the lead agency pursuant to the State CEQA Guidelines, the SCAQMD recommends that the air pollution thresholds shown below be used by lead agencies in determining whether a project would result in potentially significant impacts related to health risk. If the lead agency finds that the proposed project has the potential to exceed these air pollution thresholds, the project impacts should be considered significant. Table 4.1-5: SCAQMD Incremental Risk Thresholds for TACs lists the TAC incremental risk thresholds for operation of a project.

[12] South Coast Air Quality Management District, 2008, Localized Significance Threshold Methodology, available at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf.

Table 4.1-5: SCAQMD Incremental Risk Thresholds for TACs

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

Source: South Coast Air Quality Management District, 2023, Incremental Risk Threshold for TACs, available at: https://www.aqmd.gov/docs/default-source/cega/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25, accessed March 2023.

Cancer risk is expressed in terms of expected incremental incidence per million population. The SCAQMD has established an incidence rate of 10 persons per million as the maximum acceptable incremental cancer risk due to DPM exposure. This threshold serves to determine whether or not a given project has a potentially significant development-specific and cumulative impact. The measurements consider the maximally exposed individual resident and the point of maximum impact. The maximally exposed individual resident identifies the individual resident or sensitive receptor that would have the maximum risk of exposure associated with DPM emissions from the proposed project. The point of maximum impact is defined as the location where the risk of exposure associated with DPM emissions from the proposed project is highest.

The 10 in one million standard is a very health-protective significance threshold. A risk level of 10 in one million implies a likelihood that up to 10 persons out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the levels of TACs over a specified duration of time. This risk would be an excess cancer that is in addition to any cancer risk borne by a person not exposed to these air toxics.

The SCAQMD has also established non-carcinogenic risk parameters for use in health risk assessments (HRAs). Noncarcinogenic risks are quantified by calculating a "hazard index" (HI), expressed as the ratio between the ambient pollutant concentration and its toxicity or Reference Exposure Level (REL). An REL is a concentration at or below which health effects are not likely to occur. A hazard index less than one (1.0) means that adverse health effects are not expected. As such, non-carcinogenic exposures of less than 1.0 are considered less than significant.

CUMULATIVE IMPACTS

Based on SCAQMD guidance, individual construction projects that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would also cause a cumulatively considerable increase in emissions for those pollutants for which SCAB is in non-attainment. As discussed in the SCAQMD's White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution:

> *As Lead Agency, the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR… projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance*

thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.[13]

The cumulative analysis of air quality impacts in this Supplemental EIR follows the SCAQMD's guidance such that construction or operational project emissions would be considered cumulatively considerable if project-specific emissions exceed an applicable recommended significance threshold established by the SCAQMD.

4.1.4 METHODOLOGY

The analysis of impacts related to air quality considered the potential future improvements in the project area. The project proposes a mixed-use community that allows for vertical and horizontal mixed uses across the site. The proposed project would include mixed-use commercial and residential, residential only, and commercial only buildings. A central commercial area would include a variety of commercial uses, such as restaurants and neighborhood retail uses, with additional commercial uses extending through the ground floor of adjacent residential buildings. Stand-alone residential and mixed-use buildings would provide housing opportunities for residents in the City's South Bristol Street Focus Area.

Criteria pollutants for project construction and operation were calculated using the California Emissions Estimator Model (CalEEMod) version 2022.1. The methodology for construction and operation emission estimates for the project are discussed below.

AQMP CONSISTENCY

The SCAQMD's *CEQA Air Quality Handbook* recommends an evaluation of the following two criteria to determine whether a project would be consistent or in conflict with the AQMP:

1. The project would not generate population and employment growth that would be inconsistent with SCAG's growth forecasts.
2. The project would 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 the SCAG's growth forecast and associated assumptions included in the AQMP. The future air quality levels projected in the AQMP are based on SCAG's growth projections, which are based, in part, on the general plans of cities located within the SCAG region. Therefore, if the level of housing related to the proposed project is consistent with the applicable assumptions used in the development of the AQMP, the proposed project would not jeopardize attainment of the air quality levels identified in the AQMP.

Consistency Criterion No. 2 refers to the California Ambient Air Quality Standards. An impact would occur if the long-term emissions associated with the proposed project would exceed SCAQMD's regional significance thresholds for operation-phase emissions.

CONSTRUCTION

Project construction would primarily generate temporary criteria pollutants from construction equipment operation on-site and construction worker vehicle trips to and from the project site, and from construction material deliveries to and from the project site. Construction input data for CalEEMod include, but are not limited to, (1) the anticipated start and finish dates of construction

[13] South Coast Air Quality Management District, 2003, available at: http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper.pdf.

activity; (2) inventories of construction equipment to be used; and (3) areas to be excavated and graded. The proposed project would be constructed in five phases over approximately 20 years, beginning in January 2026 and completing by the end of 2044. This analysis separates the construction phases, as shown in Table 4.1-6, but overlap could occur due to market conditions that are unforeseeable at this time. As a conservative analysis, it is assumed that demolition of the entire project site would occur during Phase 1, as emissions in future years would be lower due to more strict regulations and technology advancement. Table 4.1-6: Construction Assumptions summarizes the proposed construction schedule, the total construction area of each phase, and the estimated soil export volume of each phase.

Table 4.1-6: Construction Assumptions

Phase	Construction Activity	Start Month/Year	Duration	Total Construction Area	Soil Export Volume[a]
1	Demolition	January 2026	3 months	6.15 acres	148,130 cubic yards
	Grading	April 2026	10 months		
	Paving	February 2027	1 month		
	Building Construction	March 2027	33 months		
	Architectural Coating	December 2029	3 months		
2	Grading	March 2030	5 months	4.85 acres	78,400 cubic yards
	Building Construction	August 2030	27 months		
	Architectural Coating	November 2032	4 months		
3	Grading	March 2033	3 months	1.45 acres	24,140 cubic yards
	Building Construction	June 2033	32 months		
	Architectural Coating	February 2036	3 months		
4	Grading	May 2036	6 months	3.25 acres	109,920 cubic yards
	Paving	November 2036	1 month		
	Building Construction	December 2036	40 months		
	Architectural Coating	April 2040	6 months		
5	Grading	October 2040	6 months	1.5 acres	72,800 cubic yards[a]
	Paving	April 2041	1 month		
	Building Construction	May 2041	41 months		
	Architectural Coating	October 2044	3 months		

Table 4.1-6: Construction Assumptions

Phase	Construction Activity	Start Month/Year	Duration	Total Construction Area	Soil Export Volume[a]

Notes:
[a] Soil export volumes are the net of total cut and fill, which account for the soil to be reused on-site.
Information about construction activities, phasing, and durations were provided by the project applicant.
Source: Refer to the Air Quality and GHG Modeling Outputs (Appendix B) for additional information used in this analysis.

Construction emissions were quantified by estimating the types and quantity of equipment that would be used on-site during each construction phase, as provided by the model defaults generated from the assumptions in Table 4.1-6: Construction Assumptions. CalEEMod also estimates off-site emissions from worker, vendor, and hauling truck trips. The number of worker and vendor trips were based on CalEEMod defaults, and the hauling truck trips were based on the soil export volumes provided in Table 4.1-6: Construction Assumptions. The default trip lengths were used for worker and vendor trips, while the trip lengths for hauling truck trips were provided by the project applicant, which would be 75 miles round trip for demolished materials hauling and 84.2 miles round trip for grading phase soil export hauling, based on the nearest available landfill sites.

Health Risk Assessment

As discussed above, construction activities of the project could take up to 20 years to complete, and there are existing residences located adjacent to the project site. Extended periods of construction activities near sensitive receptors could result in health risk impacts due to the emission of DPM, which is a toxic air contaminant, from construction equipment. As such, an HRA was conducted to determine the project's health risk impact on nearby sensitive receptors during construction.

An HRA is the process to estimate the nature and probability of adverse health effects in humans who may be exposed to chemicals in contaminated environmental media, now or in the future. Health risk is calculated by multiplying the pollutant's concentration by various factors, including the cancer potency factor. In order to determine the pollutant's concentration, the air dispersion modeling for the HRA during construction was performed using the USEPA AERMOD dispersion model, version 12.0.0. AERMOD is a steady-state, multiple-source, Gaussian dispersion model designed for use with emission sources situated in terrain where ground elevations can exceed the heights of the emission sources (this factor is not applicable to the project). AERMOD requires hourly meteorological data consisting of wind vector, wind speed, temperature, stability class, and mixing height. Surface and upper air meteorological data provided by the SCAQMD for the John Wayne Airport Monitoring Station was selected as being the most representative meteorology based on proximity to the project site.[14]

The project site was modeled as five defined polygonal area sources representing construction emissions from each construction phase (Phase 1 through Phase 5). The emission rate for PM_{10}, or in this case DPM, was calculated using the most recent version of the CalEEMod. Exhaust emission factors for typical diesel-powered heavy equipment are based on the program defaults of the most recent version of the CalEEMod, which has been used to prepare the analysis of daily construction emissions. Both the unmitigated and mitigated (i.e., compliance with GPU PEIR

[14] South Coast Air Quality Management District, 2024, SCAQMD Meteorological Data for AERMOD, available at: http://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/data-for-aermod, accessed February 2024.

Mitigation Measure (MM) AQ-1) on-site exhaust PM_{10} emissions from each construction phase were summed and averaged over the construction period of each phase, consistent with the construction schedule modeled in CalEEMod. In addition, the project's off-site construction activities consisting of hauling and vendor truck trips were modeled as three line-volume sources along Bear Street, Bristol Street, and Sunflower Avenue. Plume height and plume width of the emissions from heavy trucks were calculated using Haul Road Volume Source Calculator built in AERMOD using roadway width of each roadway segment and vehicle height of 4.6 meters (15 feet) in compliance with the SCAQMD guidelines. Based on information provided by the project applicant, the project would generate a total of up to 854 hauling truck trips during demolition and grading phases combined and approximately 232 vendor trips during building construction phases combined. The emission rates were calculated based on the construction hours of approximately 12 hours (7:00 a.m. to 7:00 p.m.) per day and five days per week. Refer to Appendix B, Air Quality and GHG Modeling Outputs, for all emission calculations and AERMOD modeling results.

A model run was conducted to obtain the peak 1-hour and annual average PM_{10} concentration in micrograms per cubic meter ($\mu g/m^3$) at nearby sensitive receptors. The results are presented in the impact analysis for Threshold AQ-3, Localized Air Quality Health Impacts below. Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. The nearby sensitive receptors include existing residential uses located immediately to the north and approximately 100 feet to the west of the project site. Note that the concentration estimate developed using this methodology is considered conservative and is not a specific prediction of the actual concentrations that would occur at any one point over the course of the construction period. Actual 1-hour and annual average concentrations are dependent on many variables, particularly the number and type of equipment working at specific distances during time periods of adverse meteorology. Project construction activities would occur in five phases at different locations throughout the 17.2-acre project site and would not be concentrated or confined to the area directly adjacent to sensitive receptors. It should be also noted that for the purpose of this analysis, project construction phases would not overlap.

Risk and Hazard Assessment

- The Hotspots Analysis and Reporting Program Version 2 (HARP2) Air Dispersion Modeling and Risk Tool was employed to calculate the health risks related to the construction of the project. HARP2 was created for the purpose of assisting and supporting the local California Air Pollution Control and Air Quality Management Districts with implementing the requirements of AB 2588. Although designed to meet the programmatic requirements of AB 2588, HARP2 modules have also been used for preparing risk assessments for other air related programs (e.g., air toxic control measure development, facility permitting applications, ambient monitoring evaluations, and CEQA review).The risk analysis algorithms and default values used in HARP2 are based on the California Office of Environmental Health Hazard Assessment (OEHHA) guidelines set forth in the revised *Technical Support Document for Exposure Assessment and Stochastic Analysis*.[15] All equations, default parameter values, and variable distributions encoded into HARP2 are from the OEHHA Guidance Manual. More specifically, the Air Dispersion Modeling and Risk Tool module in HARP2 allows users to: Calculate potential health impacts using a ground level concentration;

[15] California Office of Environmental Health Hazard Assessment, 2012, Air Toxics Hot Spots Program Risk Assessment Guidelines Technical Support Document for Exposure Assessment and Stochastic Analysis, available at: https://oehha.ca.gov/media/downloads/crnr/exposureassessment2012tsd.pdf.

- Evaluate one or multiple pollutants for one or multiple receptor points;
- Calculate cancer and non-cancer (e.g., acute, 8-hour, and chronic) health impacts using the new risk assessment guidelines in the OEHHA Guidance Manual;
- Use point estimates to calculate inhalation and multi-pathway risks; and
- Perform stochastic health risk analyses.

Cancer Risk. Based on the OEHHA methodology, the inhalation cancer risk from annual average DPM concentrations is calculated by multiplying the daily inhalation or oral dose by a cancer potency factor, an age sensitivity factor (ASF), the frequency of time spent at home (for residents only), and the exposure duration divided by averaging time, to yield the excess cancer risk. These factors are discussed in more detail below.

Exposure through inhalation (Dose-air) is a function of breathing rate, exposure frequency, and concentration of a substance in the air. For residential exposure, breathing rates are established for specific age groups; therefore, Dose-air is calculated for each of the following age groups: third trimester, 0<2, 2<9, 2<16, 16<30 and 16-70 years. To estimate cancer risk, the dose was estimated by applying the following formula to each ground level concentration:

$$\text{Dose-air} = (C_{air} * \{BR/BW\} * A * EF * 10^{-6})$$

Where:

Dose-air = dose through inhalation (microgram per kilogram per day; mg/kg/day)

C_{air} = air concentration ($\mu g/m^3$) from air dispersion model

{BR/BW} = 95th percentile daily breathing rate normalized to body weight (liters per kilogram [L/kg] body weight [BW]-day) (361 L\kg BW-day for third trimester, 1,090 L/kg BW-day for 0<2 years, 861 L/kg BW-day for 2<9 years, 745 L/kg BW-day for 2<16 years, 335 L/kg BW-day for 16<30 years, and 290 L/kg BW-day 16<70 years)

A = Inhalation absorption factor (unitless [1])

EF = exposure frequency (unitless), days/365 days (0.96 [approximately 350 days per year])

10^{-6} = conversion factor (micrograms to milligrams, liters to cubic meters)

OEHHA developed ASFs to take into account the increased sensitivity to carcinogens during early-in-life exposure. Fraction of time at home (FAH) during the day is used to adjust exposure duration and cancer risk from a specific emission source, based on the assumption that exposure to the emissions is not occurring away from home.

To estimate the cancer risk, the Dose-air is multiplied by the cancer potency factor, ASF, exposure duration divided by averaging time, and frequency of time spent at home (for residents only):

$$Risk_{inh\text{-}res} = (Dose_{air} * CPF * ASF * ED/AT * FAH)$$

Where:

$Risk_{inh\text{-}res}$ = residential inhalation cancer risk (potential chances per million)

Dose-air = daily dose through inhalation (mg/kg/day)

CPF = inhalation cancer potency factor ($mg/kg\text{-}day^{-1}$)

ASF = age sensitivity factor for a specified age group (unitless)

ED = exposure duration (in years) for a specified age group (0.25 years for third trimester, 2 years for 0<2, 7 years for 2<9, 14 years for 2<16, 14 years for 16<30, and 54 years for 16-70)

AT = averaging time of lifetime cancer risk (years)

FAH = fraction of time spent at home (unitless)

According to the OEHHA Guidance Manual, young children are more sensitive than adults to exposure to many carcinogens. As a conservative analysis, carcinogenic risks for populations starting from the third trimester were calculated to represent overall risks at residential receptors near the project site during Phase 1. The age group was progressively increased (based on the individual phase construction period) throughout the approximately 20-year construction period to ensure a comprehensive assessment of potential risks. Further, although the maximum cancer risk could occur at different residential sensitive receptors during each construction phase due to different construction areas, as a conservative analysis, the project's maximum individual cancer risk at a residential sensitive receptor during each construction phase were added and compared with SCAQMD threshold.

Chronic Non-Cancer Hazard. Non-cancer chronic impacts are calculated by dividing the annual average concentration by the REL for that substance. The REL is defined as the concentration at which no adverse non-cancer health effects are anticipated. The following equation was used to determine the non-cancer risk:

$$\text{Hazard Quotient} = C_i/REL_i$$

Where:

C_i = Concentration in the air of substance i (annual average concentration in $\mu g/m^3$)

REL_i = Chronic non-cancer Reference Exposure Level for substance i ($\mu g/m^3$)

OPERATION

Operational sources of criteria pollutant emissions include area, energy, and mobile sources, which are further discussed below. CalEEMod modeling was conducted for the existing (baseline) condition and the proposed project condition. The total existing (baseline) emissions, shown in Table 4.1-3: Existing (Baseline) Operational Criteria Pollutant Emissions were deducted from the total project emissions to determine the net project-generated emissions.

Area Sources

Emissions associated with area sources include hearths, consumer products, landscape maintenance, and architectural coating. Area source emissions were calculated using standard emission rates from CARB, USEPA, SCAQMD, and CalEEMod model defaults. Per SCAQMD Rule 445, wood-burning devices are prohibited in new development, and, therefore, only natural gas hearths were assumed to be installed.

Energy Sources

The project would be served by Southern California Edison and Southern California Gas Company. Emissions from energy sources are primarily generated by natural gas use. The emission factors for natural gas combustion are based on USEPA's AP-42 (Compilation of Air Pollutant Emissions Factors). Emissions from electricity use are not included in the air quality analysis as they only apply to GHG emissions since electricity generation is an indirect emission generated off-site and, therefore, not relevant for local and regional air quality conditions. The annual natural gas consumption was provided by model defaults generated from the project's buildout land use types and sizes.

Mobile Sources

Mobile source emissions are estimated by multiplying the project's total VMT by the vehicle emission factors. The vehicle emission factors were CalEEMod default values for Orange County in the project's buildout year of 2045. The project-specific VMT were calculated from project trip generation rates and CalEEMod default trip lengths. The project trip generation rates are discussed in detail in Section 4.13, Transportation, of this Supplemental EIR. Under the existing (baseline) condition, the project site generates 8,168 trips per day, and under the proposed project condition, the project would generate 11,694 trips per day. Therefore, the project would cause a net increase of 3,526 trips per day.

4.1.5 PROJECT IMPACTS

AQ-1: Would the project conflict with or obstruct implementation of the applicable air quality plan? *[GPU PEIR Impact 5.2-1]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

Impact 5.2-1 in the GPU PEIR analyzed the GPU's consistency with SCAQMD's 2016 AQMP, which was the latest AQMP when the GPU PEIR was prepared. The 2016 AQMP incorporated scientific and technological information and planning assumptions, including the SCAG 2016-2040 RTP/SCS and updated emission inventory methodologies for various source categories. The 2016-2040 RTP/SCS included transportation programs, measures, and strategies generally designed to reduce VMT and related air pollutant emissions from vehicles.

The GPU PEIR concluded that buildout of the GPU would exceed population estimates for the City, and, therefore, the emissions associated with the additional population are not included in the regional emissions inventory for the SCAB. Additionally, air pollutant emissions associated with buildout of the GPU would cumulatively contribute to the nonattainment designations in the SCAB. Therefore, overall, the GPU would be inconsistent with the 2016 AQMP.

Incorporation of GPU PEIR MM AQ-2 into future development projects for the operation phase would contribute to reduced criteria air pollutant emissions associated with buildout of the GPU.

Additionally, goals and policies in the GPU would promote increased capacity for alternative transportation modes and implementation of transportation demand management strategies. However, due to the magnitude and scale of the land uses that would be developed, no mitigation measures are available that would reduce construction and operational impacts below SCAQMD thresholds. In addition, the GPU PEIR determined that the population and employment assumptions of the AQMP would continue to be exceeded until the next update to AQMP, which would incorporate the projections of the GPU. Therefore, the GPU PEIR concluded that the impact would be significant and unavoidable.

Proposed Project Impact Analysis

The proposed project is evaluated for consistency as discussed below based on the 2022 AQMP adopted by the SCAQMD Governing Board on December 2, 2022. The 2022 AQMP incorporates the latest scientific and technical information and planning assumptions, including the latest applicable growth assumptions, updated emission inventory methodologies for various source categories. Additionally, the 2022 AQMP utilized information and data from SCAG and Connect SoCal. According to the SCAQMD's *CEQA Air Quality Handbook*, projects must be analyzed for consistency with two main criteria, as discussed below.

Criterion 1:

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

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

Since the consistency criteria identified under the first criterion pertain to pollutant concentrations, rather than to total regional emissions, an analysis of a project's pollutant emissions relative to localized pollutant concentrations associated with the CAAQS and NAAQS is used as the basis for evaluating project consistency. As detailed below under Threshold AQ-3, localized concentrations of CO, NO_X, PM_{10}, and $PM_{2.5}$ would be less than significant during project construction and operation. Therefore, the proposed project would not result in an increase in the frequency or severity of existing air quality violations.

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

As discussed under Threshold AQ-2, the proposed project would result in emissions that are below the SCAQMD thresholds for NO_x, CO, SO_2, PM_{10}, and $PM_{2.5}$. The proposed project would exceed the SCAQMD threshold for VOC under the summertime scenario; however, with implementation of project-specific MM AQ-1, VOC emissions would be reduced to less than significant levels. Therefore, with implementation of project-specific MM AQ-1, the proposed project would not have the potential to cause or contribute to a new violation of the ambient air quality standards.

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

The proposed project would result in less than significant impacts regarding localized concentrations during project construction and operation; refer to Threshold AQ-3. As such, the proposed project would not delay the timely attainment of air quality standards or 2022 AQMP emissions reductions.

Criterion 2:

With respect to the second criterion for determining consistency with SCAQMD and SCAG air quality policies, it is important to recognize that air quality planning within SCAB focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the consistency analysis for the second criterion focuses on whether the proposed project exceeds the assumptions utilized in preparing the forecasts presented in the 2022 AQMP. Determining whether a project exceeds the assumptions reflected in the 2022 AQMP involves the evaluation of the following criteria.

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

A project is consistent with the 2022 AQMP in part if it is consistent with the population, housing, and employment assumptions that were used in the development of the 2022 AQMP. In the case of the 2022 AQMP, three sources of data form the basis for the projections of air pollutant emissions: general plans, SCAG's regional growth forecast, and SCAG's Connect SoCal. Connect SoCal also provides socioeconomic forecast projections of regional population growth.

Based on the GPU, the project site is designated District Center (DC-5) and is within the South Bristol Street Focus Area. The DC-5 designation allows a mix of uses, including medium, medium-high, and urban density condominiums, apartments, and townhomes; professional offices; multilevel corporate offices; retail and commercial services; and cultural, education, recreation, and entertainment uses, with a maximum floor area ratio of 5.0 and/or 125 dwelling units per acre. The proposed project would construct a mix of residential and commercial uses with a density of approximately 92 dwelling units per acre and a floor area ratio of approximately 2.98 (approximately 1,850,000 square feet of residential building space, 80,000 square feet of retail space, and 300,000 square feet of office space on a 17.2-acre site). As such, the proposed project would be consistent with the designation identified by the GPU.

As discussed in Section 4.10, Population and Housing, of this Supplemental EIR, the project's estimated 3,659 residents would be 3.8 percent of the GPU PEIR's estimated 96,855 persons resulting from Citywide growth, and the proposed 1,583 housing units would be 4.4 percent of the GPU PEIR's estimated 36,261 housing units planned to be added Citywide. With respect to the Orange County Council of Government's 2045 projections, the project would represent approximately 1.02 percent of the population and approximately 1.9 percent of the housing in Santa Ana. Therefore, the population and housing growth from the proposed project would not exceed the growth identified in the GPU PEIR. With regard to employment, the project would generate a net increase of 657 jobs. This would not exceed the increase in 3,505,130 square feet of nonresidential space and 7,855 jobs projected for the South Bristol Street Focus Area. Further, the addition of housing within the project area would have a housing-rich effect on the jobs-housing balance within the City providing a more equal distribution of employment and housing for the City and thereby reducing commute trips and improving air quality.

As such, the proposed project is considered consistent with the GPU and the types, intensity, and patterns of land use envisioned for the South Bristol Street Focus Area. The population, housing, and employment forecasts, which are adopted by SCAG's Regional Council, are based on the local plans and policies applicable to the City. As the SCAQMD has incorporated these same projections into the 2022 AQMP, it can be concluded that the proposed project would be consistent with the growth projections in the 2022 AQMP.

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

The proposed project would be required to comply with RR AQ-1 through AQ-3, which include applicable emissions reduction measures identified by the SCAQMD, such as Rule 403 that requires control of excessive fugitive dust emissions by regular watering or other dust prevention measures, and Rule 1113 that regulates the VOC content of paint, as well as those mitigation measures identified in the GPU PEIR (i.e., Mitigation Measures (MM) AQ-1 and AQ-2 regarding the preparation and submittal of a technical assessment evaluating potential project construction-related and operation phase-related air quality impacts). The technical analysis prepared in this Supplemental EIR for the proposed project with air quality modeling outputs included as Appendix B, Air Quality and GHG Modeling Outputs, satisfies the requirements of GPU PEIR MMs AQ-1 and AQ-2. In addition, a project-specific mitigation measure (i.e., project-specific MM AQ-1 related to the provision of electric landscaping equipment) is proposed to mitigate the potential exceedance of the SCAQMD threshold for VOC emissions to a less than significant level as discussed under Threshold AQ-2. As such, the proposed project meets this AQMP consistency criterion.

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

The 2022 AQMP relied upon SCAG's Connect SoCal for land use planning strategies. As discussed in Table 4.5-6: Consistency with Connect SoCal in Section 4.5, Greenhouse Gas Emissions, of this Supplemental EIR, the proposed project would be consistent with SCAG's Connect SoCal. In summary, the proposed project would encourage a mixed-use development and promote a blend of residential, commercial, and recreational spaces, integrating different land uses and creating a walkable community, where a variety of housing options are developed alongside businesses and community facilities. Therefore, the proposed project would be consistent with the land use planning strategies and would be consistent with this criterion.

In conclusion, the determination of 2022 AQMP consistency focuses on the long-term influence of a project on air quality in the SCAB. The proposed project would not result in a long-term impact on the region's ability to meet State and Federal air quality standards. Further, the proposed project's long-term influence on air quality in the SCAB would also be consistent with the SCAQMD and SCAG's goals and policies and is considered consistent with the 2022 AQMP. As such, impacts resulting from the proposed project would be less than significant with implementation of project-specific MM AQ-1 for VOCs, and would be less than the impacts disclosed in the GPU PEIR, which were determined to be significant and unavoidable despite inclusion of mitigation.

For the reasons aforementioned, the proposed project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be significant and unavoidable. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold AQ-1 would be less than significant with implementation of project-specific MM AQ-1, which is detailed under Threshold AQ-2.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold AQ-1 were determined to be less than significant with implementation of project-specific MM AQ-1. Project-specific MM AQ-1 requires that all landscaping equipment used on site shall utilize at least 50 percent electric landscaping equipment, thereby reducing the proposed project's operational VOC emissions.

AQ-2: 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? *[GPU PEIR Impacts 5.2-2 and 5.2-3]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

The analysis of Impact 5.2-2 in the GPU PEIR acknowledged that construction activities associated with the GPU would temporarily increase PM_{10}, $PM_{2.5}$, VOC, NO_X, SO_X, and CO regional emissions within the SCAB. However, information regarding specific development projects, soil types, and the locations of receptors was unknown at the time, and, as such, the GPU PEIR did not quantify the level of impact associated with construction activity. According to the GPU PEIR, while individual projects considered under the GPU may not exceed the SCAQMD regional significance thresholds, the likely scale and extent of construction activities associated with the buildout of the GPU would likely continue to exceed the relevant SCAQMD thresholds for some projects. Therefore, the analysis of GPU EIR Impact 5.2-2 concluded that construction-related regional air quality impacts of development projects under the buildout of the GPU would be potentially significant. Implementation of GPU PEIR MM AQ-1 would reduce criteria air pollutant emissions from construction-related activities to the extent feasible. However, despite adherence to GPU PEIR MM AQ-1, the GPU PEIR concluded that because construction timeframes and equipment for site-specific development projects were not available at the time and because there was a potential for multiple development projects to be constructed simultaneously, the short-term construction impact would remain significant and unavoidable.

The analysis of Impact 5.2-3 in the GPU PEIR also concluded that buildout of the GPU would generate long-term emissions that would exceed SCAQMD's regional significance thresholds and cumulatively contribute to the nonattainment designations of the SCAB. Implementation of GPU PEIR MM AQ-2, in addition to compliance with the goals and policies of the GPU, would reduce air pollutant emissions to the extent feasible. The measures and policies covering topics, such as expansion of the pedestrian and bicycle networks, promotion of public and active transit, and support to increase building energy efficiency and energy conservation, would also reduce criteria air pollutants in the City. Further, compared to existing baseline year conditions, emissions of NO_X, CO, and SO_X were projected to decrease from current levels despite growth associated with the buildout of the GPU. However, the analysis of Impact 5.2-3 in the GPU PEIR concluded that long-term operational impact would remain significant and unavoidable due to the magnitude of the overall land use development associated with the buildout of the GPU.

Proposed Project Impact Analysis

Construction

The analysis of Impact 5.2-2 in the GPU PEIR acknowledged that air quality emissions related to construction must be addressed on a project-by-project basis. Accordingly, Table 4.1-7: Construction Criteria Pollutant Emissions summarizes the estimated maximum daily emissions of VOC, NO_x, CO, SO_2, PM_{10}, and $PM_{2.5}$. As shown, emissions from the proposed project's construction activities would not exceed the SCAQMD regional thresholds. Furthermore, the proposed project would be required to comply with SCAQMD rules and regulations to control fugitive dust emissions, which have been incorporated in the modeling. Because the proposed project's emissions would not exceed SCAQMD's regional significance thresholds, the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for

which the region is non-attainment, and regional construction impacts would be less than significant.

Table 4.1-7: Construction Criteria Pollutant Emissions

Construction Phase/Year	Maximum Emissions (pounds/day)[a]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Phase 1						
2026	2.41	41.45	28.40	0.19	9.48	3.66
2027	1.87	39.91	27.79	0.19	9.43	3.62
2028	1.80	11.33	26.86	0.03	4.44	1.27
2029	46.70	10.80	26.02	0.03	4.41	1.25
2030	46.69	0.93	3.12	<0.01	0.75	0.18
Maximum Daily Construction Emissions	**46.70**	**41.45**	**28.40**	**0.19**	**9.48**	**3.66**
South Coast AQMD Regional Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***	***No***
Phase 2						
2030	1.92	36.56	28.98	0.20	9.74	3.66
2031	1.85	10.40	28.05	0.04	5.55	1.50
2032	43.90	10.09	27.26	0.04	5.53	1.48
2033	43.89	0.92	3.36	<0.01	0.97	0.23
Maximum Daily Construction Emissions	**43.90**	**36.56**	**28.98**	**0.20**	**9.74**	**3.66**
South Coast AQMD Regional Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***	***No***
Phase 3						
2033	1.30	19.86	16.87	0.11	6.02	2.42
2034	1.09	7.52	14.23	0.02	1.97	0.57
2035	1.07	7.36	13.98	0.02	1.97	0.56
2036	20.37	7.18	13.20	0.02	1.96	0.56
Maximum Daily Construction Emissions	**20.37**	**19.86**	**16.87**	**0.11**	**6.02**	**2.42**
South Coast AQMD Regional Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***	***No***
Phase 4						
2036	1.50	31.41	23.37	0.22	10.70	3.85
2037	1.46	9.17	22.07	0.04	4.61	1.23
2038	1.43	9.02	21.72	0.04	4.61	1.23
2039	1.28	8.74	21.50	0.04	4.60	1.22
2040	25.97	8.64	20.10	0.04	4.60	1.22
Maximum Daily Construction Emissions	**25.97**	**31.41**	**23.37**	**0.22**	**10.70**	**3.85**
South Coast AQMD Regional Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***	***No***

Table 4.1-7: Construction Criteria Pollutant Emissions

Construction Phase/Year	Maximum Emissions (pounds/day)[a]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Phase 5						
2041	1.15	20.04	15.66	0.15	7.84	2.92
2042	1.11	19.33	15.16	0.15	7.81	2.89
2043	1.02	6.98	14.63	0.03	2.89	0.77
2044	1.01	6.93	14.59	0.03	2.88	0.76
Maximum Daily Construction Emissions	**1.15**	**20.04**	**15.66**	**0.15**	**7.84**	**2.92**
South Coast AQMD Regional Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***	***No***

Notes:
VOC = volatile organic compounds; NO_x = nitrogen oxides; CO = carbon monoxide; SO_2 = sulfur dioxide; PM_{10} = particulate matter 10 micrometers in diameter or less; $PM_{2.5}$ = fine particulate matter 2.5 micrometers or less in diameter

[a] The higher emissions between summer and winter are presented. Emissions were calculated using CalEEMod version 2022.1, as recommended by the SCAQMD. Modeling assumptions include compliance with SCAQMD Rule 403, which requires: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces twice daily; cover stockpiles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour.

Source: Refer to the Air Quality and GHG Modeling Outputs (Appendix B) for assumptions used in this analysis.

Operation

Operational emissions generated by both stationary and mobile sources of the proposed project would result from normal daily activities on-site after construction of each phase is complete. Table 4.1-8: Operational Criteria Pollutant Emissions (Unmitigated) summarizes the proposed project's operational emissions by phase and under buildout generated by area sources, energy sources, and mobile sources, and the net increase from existing (baseline) conditions.

Table 4.1-8: Operational Criteria Pollutant Emissions (Unmitigated)

Emission Source	Maximum Emissions (pounds per day)[a,b]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Phase 1 (2030)						
Summer Emissions						
Mobile	13.93	8.60	105.06	0.28	28.70	7.39
Area	18.85	23.92	42.13	0.15	1.94	1.93
Energy	0.07	1.13	0.53	0.01	0.09	0.09
Total Phase 1 Summer Emissions	**32.84**	**33.65**	**147.72**	**0.44**	**30.73**	**9.41**
Total Baseline Summer Emissions	**32.24**	**20.33**	**210.97**	**0.48**	**42.89**	**11.20**
Net Change From Existing Conditions	**0.61**	**13.32**	**-63.25**	**-0.04**	**-12.16**	**-1.79**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Exceed Threshold?	***No***	***No***	***No***	***No***	***No***	***No***

Table 4.1-8: Operational Criteria Pollutant Emissions (Unmitigated)

Emission Source	Maximum Emissions (pounds per day)[a,b]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Winter Emissions						
Mobile	13.84	9.33	98.75	0.27	28.70	7.39
Area	15.18	23.63	10.06	0.15	1.91	1.91
Energy	0.07	1.13	0.53	0.01	0.09	0.09
Total Phase 1 Winter Emissions	**29.09**	**34.10**	**109.33**	**0.43**	**30.70**	**9.39**
Total Baseline Winter Emissions	**30.64**	**21.89**	**191.46**	**0.46**	**42.88**	**11.19**
Net Change From Existing Conditions	**-1.56**	**12.21**	**-82.13**	**-0.03**	**-12.18**	**-1.80**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Exceed Threshold?	***No***	***No***	***No***	***No***	***No***	***No***
Phase 1 through Phase 2 (2033)						
Summer Emissions						
Mobile	17.64	10.49	135.73	0.38	40.35	10.36
Area	35.48	24.25	78.96	0.15	1.97	1.95
Energy	0.15	2.57	1.14	0.02	0.21	0.21
Total Phase 1 through Phase 2 Summer Emissions	**53.27**	**37.31**	**215.83**	**0.55**	**42.52**	**12.52**
Total Baseline Summer Emissions	**32.24**	**20.33**	**210.97**	**0.48**	**42.89**	**11.20**
Net Change From Existing Conditions	**21.04**	**16.97**	**4.86**	**0.07**	**-0.37**	**1.32**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Exceed Threshold?	***No***	***No***	***No***	***No***	***No***	***No***
Winter Emissions						
Mobile	17.58	11.39	127.16	0.36	40.35	10.36
Area	28.06	23.63	10.06	0.15	1.91	1.91
Energy	0.15	2.57	1.14	0.02	0.21	0.21
Total Phase 1 through Phase 2 Winter Emissions	**45.78**	**37.59**	**138.36**	**0.53**	**42.47**	**12.48**
Total Baseline Winter Emissions	**30.64**	**21.89**	**191.46**	**0.46**	**42.88**	**11.19**
Net Change From Existing Conditions	**15.14**	**15.70**	**-53.10**	**0.07**	**-0.41**	**1.29**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Exceed Threshold?	***No***	***No***	***No***	***No***	***No***	***No***
Phase 1 through Phase 3 (2036)						
Summer Emissions						
Mobile	16.97	9.75	133.27	0.38	41.78	10.71
Area	41.17	24.37	91.69	0.15	1.98	1.96
Energy	0.18	3.06	1.35	0.02	0.25	0.25
Total Phase 1 through Phase 3 Emissions	**58.32**	**37.18**	**226.31**	**0.55**	**44.00**	**12.92**
Total Baseline Summer Emissions	**32.24**	**20.33**	**210.97**	**0.48**	**42.89**	**11.20**
Net Change From Existing Conditions	**26.08**	**16.85**	**15.33**	**0.07**	**1.11**	**1.71**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Exceed Threshold?	***No***	***No***	***No***	***No***	***No***	***No***

Table 4.1-8: Operational Criteria Pollutant Emissions (Unmitigated)

Emission Source	Maximum Emissions (pounds per day)[a,b]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Winter Emissions						
Mobile	16.95	10.60	124.54	0.36	41.78	10.71
Area	32.44	23.63	10.06	0.15	1.91	1.91
Energy	0.18	3.06	1.35	0.02	0.25	0.25
Total Phase 1 through Phase 3 Winter Emissions	**49.56**	**37.30**	**135.95**	**0.53**	**43.93**	**12.87**
Total Baseline Winter Emissions	**30.64**	**21.89**	**191.46**	**0.46**	**42.88**	**11.19**
Net Change From Existing Conditions	**18.92**	**15.41**	**-55.51**	**0.07**	**1.05**	**1.68**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Exceed Threshold?	***No***	***No***	***No***	***No***	***No***	***No***
Phase 1 through Phase 4 (2040)						
Summer Emissions						
Mobile	22.48	12.51	178.40	0.51	58.59	15.00
Area	60.09	24.73	133.75	0.16	2.03	2.00
Energy	0.34	5.86	3.39	0.04	0.46	0.46
Total Phase 1 through Phase 4 Summer Emissions	**82.91**	**43.10**	**315.54**	**0.70**	**61.09**	**17.46**
Total Baseline Summer Emissions	**32.24**	**20.33**	**210.97**	**0.48**	**42.89**	**11.20**
Net Change From Existing Conditions	**50.67**	**22.77**	**104.57**	**0.22**	**18.19**	**6.26**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Exceed Threshold?	***No***	***No***	***No***	***No***	***No***	***No***
Winter Emissions						
Mobile	22.50	13.62	166.49	0.49	58.59	15.00
Area	45.60	23.63	10.06	0.15	1.91	1.91
Energy	0.34	5.86	3.39	0.04	0.46	0.46
Total Phase 1 through Phase 4 Winter Emissions	**68.43**	**43.11**	**179.93**	**0.68**	**60.97**	**17.37**
Total Baseline Winter Emissions	**30.64**	**21.89**	**191.46**	**0.46**	**42.88**	**11.19**
Net Change From Existing Conditions	**37.79**	**21.23**	**-11.52**	**0.21**	**18.09**	**6.18**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Exceed Threshold?	***No***	***No***	***No***	***No***	***No***	***No***
Buildout (2045)						
Summer Emissions						
Mobile	22.77	12.49	184.55	0.53	62.17	15.90
Area	68.54	24.89	151.39	0.16	2.04	2.01
Energy	0.38	6.61	3.71	0.04	0.52	0.52
Total Buildout Summer Emissions	**91.68**	**43.99**	**339.66**	**0.73**	**64.74**	**18.43**
Total Baseline Summer Emissions	**32.24**	**20.33**	**210.97**	**0.48**	**42.89**	**11.20**
Net Change From Existing Conditions	**59.44**	**23.66**	**128.69**	**0.24**	**21.85**	**7.23**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Exceed Threshold?	***Yes***	***No***	***No***	***No***	***No***	***No***

Table 4.1-8: Operational Criteria Pollutant Emissions (Unmitigated)

Emission Source	Maximum Emissions (pounds per day)[a,b]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Winter Emissions						
Mobile	22.81	13.61	172.03	0.51	62.18	15.90
Area	52.34	23.63	10.06	0.15	1.91	1.91
Energy	0.38	6.61	3.71	0.04	0.52	0.52
Total Buildout Winter Emissions	**75.53**	**43.85**	**185.80**	**0.70**	**64.61**	**18.33**
Total Baseline Winter Emissions	**30.64**	**21.89**	**191.46**	**0.46**	**42.88**	**11.19**
Net Change From Existing Conditions	**44.88**	**21.97**	**-5.66**	**0.24**	**21.73**	**7.14**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Exceed Threshold?	***No***	***No***	***No***	***No***	***No***	***No***

Notes:
VOC = volatile organic compounds; NO_x = nitrogen oxide; CO = carbon monoxide; SO_x = sulfur dioxide; PM_{10} = particulate matter 10 micrometers in diameter or less; $PM_{2.5}$ = fine particulate matter 2.5 micrometers or less in diameter
[a] Emissions were calculated using CalEEMod version 2022.1, as recommended by SCAQMD.
[b] The numbers may not add up precisely due to rounding.
Source: Refer to the Air Quality and GHG Modeling Outputs (Appendix B) for assumptions used in this analysis.

As shown in Table 4.1-8, the unmitigated net increase in operational emissions from the proposed project would not exceed the regional thresholds of significance established by the SCAQMD for criteria pollutants, except for VOC emissions during the summer under the buildout condition. It should be noted that as part of the CalEEMod assumptions, emissions generated during the same phase would be lower in later years as technology advances to reduce emission factors, and therefore, total emissions are affected by the year of operation. For example, mobile source VOC emissions are higher for Phase 1 through Phase 2 (2033) than Phase 1 through Phase 3 (2036). VOC emissions would mostly be generated from area sources, including hearths, consumer products, architectural coatings, and landscape equipment. Consistent with the GPU PEIR, operational VOC emissions during the summer would be significant.

As the project would be constructed in five phases, operation of earlier phases would overlap with construction of later phases. Table 4.1-9: Overlapping Construction and Operational Criteria Pollutant Emissions (Unmitigated) summarizes the proposed project's overlapping construction and operational emissions by phase generated by area sources, energy sources, and mobile sources, and the net increase from existing (baseline) conditions.

Table 4.1-9: Overlapping Construction and Operational Criteria Pollutant Emissions (Unmitigated)

Emission Source	Maximum Emissions (pounds per day)[a,b]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Phase 2 Construction + Phase 1 Operations						
Maximum Phase 2 Construction Emissions	43.90	36.56	28.98	0.20	9.74	3.66
Maximum Phase 1 Operations Net Change Emissions	0.61	13.32	-63.25	-0.03	-12.16	-1.79
Total Emissions	**44.51**	**49.88**	**-34.28**	**0.16**	**-2.42**	**1.87**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Exceed Threshold?	***No***	***No***	***No***	***No***	***No***	***No***

Table 4.1-9: Overlapping Construction and Operational Criteria Pollutant Emissions (Unmitigated)

Emission Source	Maximum Emissions (pounds per day)[a,b]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Phase 3 Construction + Phases 1-2 Operations						
Maximum Phase 3 Construction Emissions	20.37	19.86	16.87	0.11	6.02	2.42
Maximum Phases 1-2 Operations Net Change Emissions	21.04	16.97	4.86	0.07	-0.37	1.32
Total Emissions	**41.41**	**36.83**	**21.73**	**0.18**	**5.65**	**3.74**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Exceed Threshold?	***No***	***No***	***No***	***No***	***No***	***No***
Phase 4 Construction + Phases 1-3 Operations						
Maximum Phase 4 Construction Emissions	25.97	31.41	23.37	0.22	10.70	3.85
Maximum Phases 1-3 Operations Net Change Emissions	26.08	16.85	15.33	0.07	1.11	1.71
Total Emissions	**52.05**	**48.27**	**38.70**	**0.29**	**11.80**	**5.57**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Exceed Threshold?	***No***	***No***	***No***	***No***	***No***	***No***
Phase 5 Construction + Phases 1-4 Operations						
Maximum Phase 5 Construction Emissions	1.15	20.04	15.66	0.15	7.84	2.92
Maximum Phases 1-4 Operations Net Change Emissions	50.67	22.77	104.57	0.22	18.19	6.26
Total Emissions	**51.82**	**42.81**	**120.23**	**0.37**	**26.03**	**9.18**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Exceed Threshold?	***No***	***No***	***No***	***No***	***No***	***No***

Notes:
VOC = volatile organic compounds; NO_x = nitrogen oxide; CO = carbon monoxide; SO_x = sulfur dioxide; PM_{10} = particulate matter 10 micrometers in diameter or less; $PM_{2.5}$ = fine particulate matter 2.5 micrometers or less in diameter
[a] Emissions were calculated using CalEEMod version 2022.1, as recommended by SCAQMD.
[b] The numbers may not add up precisely due to rounding.
Source: Refer to the Air Quality and GHG Modeling Outputs (Appendix B) for assumptions used in this analysis.

As shown in Table 4.1-9: Overlapping Construction and Operational Criteria Pollutant Emissions (Unmitigated), the unmitigated overlapping construction and operational emissions from the proposed project would not exceed the regional thresholds of significance established by the SCAQMD for criteria pollutants. Therefore, impacts during overlapping of construction and operation of the proposed project would be less than significant.

Air Quality Health Impacts

Adverse health effects induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individuals [e.g., age, gender]). In particular, O_3 precursors, VOCs and NO_x, affect air quality on a regional scale. Health effects related to O_3 are, therefore, the product of emissions generated by numerous sources throughout a region. Existing models have limited sensitivity to small changes in criteria pollutant concentrations, and, as such, translating project-generated criteria pollutants to specific health effects or additional days of nonattainment would not produce meaningful results. In other words, the project's increases in regional air pollution from criteria air pollutants would have nominal or negligible impacts on human health.

The SCAQMD acknowledges that health effects quantification from O_3, is correlated with the increases in ambient level of O_3 in the air (concentration) that an individual person breathes. However, based on their own modeling in the SCAQMD's *2012 Air Quality Management Plan*, it would take a large amount of additional emissions to cause a modeled increase in ambient O_3 levels over the entire region. The SCAQMD's *2012 Air Quality Management Plan* found a reduction of 432 tons (864,000 pounds) per day of NO_x and a reduction of 187 tons (374,000 pounds) per day of VOCs would reduce O_3 levels at the highest monitored site by only nine parts per billion. As such, the SCAQMD concludes that it is not currently possible to accurately quantify O_3-related health impacts caused by NO_x or VOC emissions from relatively small projects (defined as projects with regional scope) due to photochemistry and regional model limitations.[16]

The GPU PEIR concluded that the GPU would cumulatively contribute to the nonattainment designations of the SCAB for O_3 and particulate matter (PM_{10} and $PM_{2.5}$). As discussed above, operational VOC emissions during the summer would be significant for the project, consistent with the GPU PEIR. However, since the potential air quality impacts of the proposed project were considered in the GPU buildout, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be significant and unavoidable. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

As detailed below, project-specific MM AQ-1 would be implemented to reduce significant impacts related to VOCs during project operations. The project-specific mitigation measure was not included in the GPU PEIR but required for the proposed project, as it was not a feasible measure to reduce impacts associated with buildout of the GPU, but it is a feasible measure to reduce the potentially significant impacts of the proposed project.

Regarding the mitigation measures in the GPU PEIR related to this threshold, this technical assessment and appendices prepared for the project satisfy GPU PEIR MMs AQ-1 and AQ-2, which require preparation of a technical assessment evaluating a potential project's construction-related and operation phase-related air quality impacts.

GPU PEIR Mitigation Measures

As discussed above, GPU PEIR MM AQ-1 and AQ-2 have been implemented to reduce potentially significant impacts related to air quality during construction and operation of the proposed project. These mitigation measure are provided in verbatim below. The air quality modeling prepared for the proposed project satisfies the technical assessment requirements of GPU PEIR MM AQ-1 and AQ-2 for the project. The analysis above determined that the proposed project's construction-related and operation phase-related air quality impacts would be less than significant, with the exception of operational VOC emissions during the summer. As the possible mitigation measures to reduce short-term and long-term emissions listed under GPU PEIR MM AQ-1 and AQ-2 are either suggested for industrial uses or do not directly reduce operational VOC emissions and, therefore, are not applicable to the project under Threshold AQ-2.

[16] South Coast Air Quality Management District, 2013, Final 2012 Air Quality Management Plan, Appendix V: Modeling & Attainment Demonstrations, available at: http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2012-air-quality-management-plan/final-2012-aqmp-(february-2013)/main-document-final-2012.pdf.

GPU PEIR MM AQ-1:

Prior to discretionary approval by the City of Santa Ana for development projects subject to CEQA (California Environmental Quality Act) review (i.e., non-exempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project construction-related air quality impacts to the City of Santa Ana for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology for assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the South Coast AQMD's adopted thresholds of significance, the City of Santa Ana shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during construction activities. These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City. Mitigation measures to reduce construction-related emissions could include, but are not limited to:

- Require fugitive-dust control measures that exceed South Coast AQMD's Rule 403, such as:
  - Use of nontoxic soil stabilizers to reduce wind erosion.
  - Apply water every four hours to active soil-disturbing activities.
  - Tarp and/or maintain a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials.
- Use construction equipment rated by the United States Environmental Protection Agency as having Tier 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower.
- Ensure that construction equipment is properly serviced and maintained to the manufacturer's standards.
- Limit nonessential idling of construction equipment to no more than five consecutive minutes.
- Limit on-site vehicle travel speeds on unpaved roads to 15 miles per hour.
- Install wheel washers for all exiting trucks or wash off all trucks and equipment leaving the project area.
- Use Super-Compliant VOC paints for coating of architectural surfaces whenever possible. A list of Super-Compliant architectural coating manufactures can be found on the South Coast AQMD's website.

GPU PEIR MM AQ-2:

Prior to discretionary approval by the City of Santa Ana for development projects subject to CEQA (California Environmental Quality Act) review (i.e., non-exempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project operation phase-related air quality impacts to the City of Santa Ana for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology in assessing air quality impacts. If operation-related air pollutants are determined to have the potential to exceed the South Coast AQMD's adopted thresholds of significance, the City of Santa Ana shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operational activities. The identified measures shall be included

as part of the conditions of approval. Possible mitigation measures to reduce long-term emissions could include, but are not limited to the following:[17]

- For site-specific development that requires refrigerated vehicles, the construction documents shall demonstrate an adequate number of electrical service connections at loading docks for plug-in of the anticipated number of refrigerated trailers to reduce idling time and emissions.
- Applicants for manufacturing and light industrial uses shall consider energy storage and combined heat and power in appropriate applications to optimize renewable energy generation systems and avoid peak energy use.
- Site-specific developments with truck delivery and loading areas and truck parking spaces shall include signage as a reminder to limit idling of vehicles while parked for loading/unloading in accordance with California Air Resources Board Rule 2845 (13 CCR Chapter 10 § 2485).
- Provide changing/shower facilities as specified in Section A5.106.4.3 of the CALGreen Code (Nonresidential Voluntary Measures).
- Provide bicycle parking facilities per Section A4.106.9 (Residential Voluntary Measures) of the CALGreen Code and Sec. 41-1307.1 of the Santa Ana Municipal Code.
- Provide preferential parking spaces for low-emitting, fuel-efficient, and carpool/van vehicles per Section A5.106.5.1 of the CALGreen Code (Nonresidential Voluntary Measures).
- Provide facilities to support electric charging stations per Section A5.106.5.3 (Nonresidential Voluntary Measures) and Section A5.106.8.2 (Residential Voluntary Measures) of the CALGreen Code.
- Applicant-provided appliances (e.g., dishwashers, refrigerators, clothes washers, and dryers) shall be Energy Star–certified appliances or appliances of equivalent energy efficiency. Installation of Energy Star– certified or equivalent appliances shall be verified by Building & Safety during plan check.
- Applicants for future development projects along existing and planned transit routes shall coordinate with the City of Santa Ana and Orange County Transit Authority to ensure that bus pad and shelter improvements are incorporated, as appropriate.

Project-Specific Mitigation Measure

The following mitigation measure would be required to reduce potentially significant impacts during project operation to a less than significant level.

MM AQ-1: Prior to the issuance of occupancy permits, the Planning Division shall confirm that the proposed project's Covenants, Conditions, and Restrictions (CC&Rs) and/or tenant lease agreements include contractual language that all landscaping equipment used on site shall utilize at least 50 percent electric landscaping equipment (e.g., lawnmowers, leaf blowers, hedge trimmers). All residential and non-residential properties shall be equipped with exterior electrical outlets to accommodate this requirement. This requirement shall be included in the third-

[17] The possible mitigation measures to reduce long-term emissions listed under GPU PEIR MM AQ-2 are not applicable to the project as they either are suggested for industrial uses or do not directly reduce VOC emissions.

party vendor agreements for landscape services for the building owner and tenants, as applicable.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Pursuant to GPU PEIR MM AQ-1 and AQ-2, the proposed project's construction-related and operation phase-related air quality impacts were fully evaluated in this section of this Supplemental EIR, which determined that the proposed project's construction-related and operation phase-related air quality impacts would be less than significant, with the exception of operational VOC emissions during the summer.

To reduce VOC emissions, the proposed project would implement project-specific MM AQ-1, which requires that at least 50 percent of the landscape equipment used on-site to be electric. The net increase of operational emissions from the project with mitigation incorporated is shown in Table 4.1-10: Operational Criteria Pollutant Emissions (Mitigated). As shown in the table, implementation of project-specific MM AQ-1 would reduce the proposed project's operation-phase VOC emissions below the SCAQMD regional threshold of significance. Therefore, with mitigation incorporated, the proposed project would not result in a cumulatively considerable net increase in criteria pollutants for which the SCAB is non-attainment under the NAAQS or the CAAQS, and, as such, impacts related to Threshold AQ-2 would be less than significant.

Table 4.1-10: Operational Criteria Pollutant Emissions (Mitigated)

Emission Source	Maximum Emissions (pounds per day)[a,b]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Summer Emissions						
Mobile	22.77	12.49	184.55	0.53	62.17	15.90
Area[c]	60.44	24.26	80.73	0.15	1.98	1.96
Energy	0.38	6.61	3.71	0.04	0.52	0.52
Total Summer Emissions	**83.58**	**43.36**	**268.99**	**0.72**	**64.68**	**18.38**
Net Change From Existing Conditions	**51.35**	**23.03**	**58.02**	**0.24**	**21.78**	**7.18**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Exceed Threshold?	***No***	***No***	***No***	***No***	***No***	***No***
Winter Emissions						
Mobile	22.81	13.61	172.03	0.51	62.18	15.90
Area[c]	51.33	23.55	1.22	0.15	1.90	1.90
Energy	0.38	6.61	3.71	0.04	0.52	0.52
Total Winter Emissions	**74.51**	**43.78**	**176.96**	**0.70**	**64.60**	**18.33**
Net Change From Existing Conditions	**43.87**	**21.89**	**-14.50**	**0.24**	**21.72**	**7.13**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Exceed Threshold?	***No***	***No***	***No***	***No***	***No***	***No***

Notes:
VOC = volatile organic compounds; NO_x = nitrogen oxide; CO = carbon monoxide; SO_x = sulfur dioxide; PM_{10} = particulate matter 10 micrometers in diameter or less; $PM_{2.5}$ = fine particulate matter 2.5 micrometers or less in diameter
[a] Emissions were calculated using CalEEMod version 2022.1, as recommended by SCAQMD.
[b] The numbers may not add up precisely due to rounding.
[c] Mitigated area source emissions were calculated by reducing 50 percent of landscape equipment emissions from the unmitigated area source emissions.
Source: Refer to the Air Quality and GHG Modeling Outputs (Appendix B) for assumptions used in this analysis.

AQ-3: Would the project expose sensitive receptors to substantial pollutant concentrations? *[GPU PEIR Impact 5.2-5]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

The analysis of Impact 5.2-5 in the GPU PEIR concluded that buildout of the GPU could expose sensitive receptors to substantial concentrations of TACs because buildout could result in new sources of criteria air pollutant emissions and/or TACs near existing or planned sensitive receptors. However, the analysis of Impact 5.2-5 in the GPU PEIR also acknowledged that GPU PEIR MM AQ-1 and AQ-2 (as identified above) would reduce the regional and localized construction and operation emissions associated with buildout of the GPU. Nonetheless, the GPU PEIR concluded that, because existing sensitive receptors may be close to project-related construction activities and large emitters of on-site operation-related criteria air pollutant emissions, construction and operation emissions generated by individual development projects have the potential to exceed SCAQMD's LSTs and that air quality impacts would remain significant and unavoidable.

Proposed Project Impact Analysis

As identified above, sensitive receptors that may be affected by air quality impacts associated with project construction and operation include the following:

- Multi-family residences (communities of Versailles on the Lake and St. Albans) located immediately adjacent to the north of the project site; and
- Multi-family residences (Village Creek condominium community) to the west across Bear Street in the City of Costa Mesa, approximately 100 feet from the project site boundary.

Localized Significance Thresholds

Construction

The SCAQMD guidance on applying CalEEMod to LSTs specifies the number of acres a particular piece of equipment would likely disturb per day.[18] SCAQMD provides LST screening thresholds for one-, two-, and five-acre site disturbance areas; SCAQMD does not provide LST screening thresholds for projects over five acres. Although the project site is over five acres, the proposed project would only actively disturb approximately one acre per day during all construction phases. Therefore, the LST screening thresholds for one acre were utilized for the LST analysis, which are the most stringent screening thresholds. Further, the nearest sensitive receptors are located immediately adjacent to the north of the project site. LST screening thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. Therefore, the lowest LST values for 25 meters were used, per SCAQMD guidance.

Table 4.1-10: On-site Construction Emissions shows the localized construction-related emissions. The localized emissions presented in this table are less than those in Table 4.1-7: Construction Criteria Pollutant Emissions because localized emissions include only on-site emissions (i.e., from construction equipment and fugitive dust) and do not include off-site emissions (i.e., from the worker, vendor, and hauling trips). As shown in Table 4.1-11: On-site Construction Emissions, the

[18] The number of acres represent the total acres traversed by grading equipment. To properly grade a piece of land, multiple passes with equipment may be required. The disturbance acreage is based on the equipment list and days of the grading phase according to the anticipated maximum number of acres a given piece of equipment can pass over in an 8-hour workday.

proposed project's construction emissions would not exceed the LST screening thresholds for SRA 17 (Central Orange County). Therefore, construction LST impacts would be less than significant.

Table 4.1-11: On-site Construction Emissions

Construction Phase	Pollutant (pounds/day)[a,b]			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Phase 1[c]	20.7	19.0	2.62	1.48
Phase 2[d]	12.6	17.3	2.36	1.36
Phase 3[e]	9.05	12.6	2.24	1.24
Phase 4[f]	9.59	15.1	2.18	1.19
Phase 5[g]	6.82	11.0	2.11	1.13
Maximum Daily Emissions	**20.7**	**19.0**	**2.62**	**1.48**
LST Screening Threshold[h]	81	485	4	3
Screening Thresholds Exceeded?	***No***	***No***	***No***	***No***

Notes:
[a] Emissions were calculated using CalEEMod, version 2022.1. Totals may be off due to rounding.
[b] The reduction/credits for construction emissions are based on adjustments to CalEEMod and are required by the SCAQMD Rules. The adjustments applied in CalEEMod include the following: properly maintain mobile and other construction equipment; replace the ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; and limit speeds on unpaved roads to 15 miles per hour.
[c] Highest levels of emissions are during demolition phase for NO_X CO, and PM_{10}. and grading phase for $PM_{2.5}$ in 2026.
[d] Highest levels of emissions are during grading phase in 2030.
[e] Highest levels of emissions are during grading phase in 2033.
[f] Highest levels of emissions are during grading phase in 2036.
[g] Highest levels of emissions are during grading phase in 2040.
[h] The LST Screening Thresholds were determined using Appendix C of the SCAQMD *Final Localized Significant Threshold Methodology* guidance document for pollutants NO_X, CO, PM_{10}, and $PM_{2.5}$. The LST Screening Thresholds were based on the anticipated daily acreage disturbance for construction (the thresholds for one-acre were used), the LST screening thresholds of 25 meters based on the distance to sensitive receptors, and the source receptor area (Central Orange County).
Source: Refer to the Air Quality and GHG Modeling Outputs (Appendix B) for assumptions used in this analysis.

Operation

An LST analysis is only required for on-site sources. During project operation, most of the operational emissions would occur off-site, unless the project includes stationary sources or attracts mobile sources that may spend extended periods queuing and idling at the site (e.g., warehouse or transfer facilities). The proposed project would involve the development of residential, office, retail, and restaurant uses that would result in very limited on-site operational emissions, including landscaping maintenance operations and boilers for residential and restaurant uses. The LSTs are typically applied to projects that are five acres or less in size, as pollutant concentrations dissipate as site acreage increases. Since the proposed project is approximately 17.2 acres in size and very limited on-site operational emission sources are planned on the project site, operational LSTs would not apply to the proposed project. As such, the proposed project's operational phase LST impacts would be less than significant.

Localized Air Quality Health Impacts

Construction

The proposed project's construction activities would involve the operation of diesel-powered equipment, which would emit DPM. In 1998, CARB identified diesel exhaust as a TAC. Cancer

health risks associated with exposures to diesel exhaust typically are associated with chronic exposure, in which a 30-year exposure period often is assumed. Construction of the proposed project would be required to comply with CCR, Title 13, Sections 2449(d)(2) and 2485, to minimize the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes. Implementation of these regulations would reduce the amount of DPM emissions from the construction of the proposed project. However, to further evaluate potential health risks impacts associated with TAC, including DPM emissions associated with construction, an HRA has been performed.

As shown in Table 4.1-12: Project Maximum Individual Cancer Risk During Construction (Unmitigated), the total highest calculated carcinogenic risk would be approximately 23 in one million and would exceed the threshold of 10 in one million. As such, the impact to cancer risk would be potentially significant without mitigation.

Table 4.1-12: Project Maximum Individual Cancer Risk During Construction (Unmitigated)

Exposure Scenario	Maximum Cancer Risk (Risk per Million)[a]	Significance Threshold (Risk per Million)	Exceeds Significance Threshold?
Phase 1 Maximum at a Residential Sensitive Receptor[b]	9.43	10	No
Phase 2 Maximum at a Residential Sensitive Receptor[c]	6.27	10	No
Phase 3 Maximum at a Residential Sensitive Receptor[d]	5.92	10	No
Phase 4 Maximum at a Residential Sensitive Receptor[e]	1.21	10	No
Phase 5 Maximum at a Residential Sensitive Receptor[f]	0.17	10	No
Total Maximum at a Residential Sensitive Receptor[g]	**23.00**	**10**	**Yes**

Notes:
a. Refer to the Air Quality and GHG Modeling Outputs (Appendix B).
b. The maximum cancer risk would be experienced at UTM NAD83 Zone 11S coordinate location 417531.03, 3728912.25. The MICR risk is at the residential receptor located to the north of the project.
c. The maximum cancer risk would be experienced at UTM NAD83 Zone 11S coordinate location 417531.03, 3728912.25. The MICR risk is at the residential receptor located to the north of the project.
d. The maximum cancer risk would be experienced at UTM NAD83 Zone 11S coordinate location 417606.03, 3728912.25. The MICR risk is at the residential receptor located to the north of the project.
e. The maximum cancer risk would be experienced at UTM NAD83 Zone 11S coordinate location 417606.03, 3728912.25. The MICR risk is at the residential receptor located to the north of the project.
f. The maximum cancer risk would be experienced at UTM NAD83 Zone 11S coordinate location 417606.03, 3728912.25. The MICR risk is at the residential receptor located to the north of the project.
g. As a conservative analysis, the total maximum cancer risk represents the sum of the maximum cancer risk exposures during each individual construction phase.

Source: Refer to the Air Quality and GHG Modeling Outputs (Appendix B) for assumptions used in this analysis.

The significance thresholds for TAC exposure also require an evaluation of non-cancer risk stated in terms of a hazard index. Non-cancer chronic hazard risk are calculated by dividing the annual average concentration by REL for that substance. The REL is defined as the concentration at which no adverse non-cancer health effects are anticipated. The potential for acute non-cancer hazards is evaluated by comparing the maximum short-term exposure level to an acute REL. RELs are designed to protect sensitive individuals within the population. The calculation of acute non-cancer hazard risk is similar to the procedure for chronic non-cancer hazard risk. Currently, OEHHA has not set an acute REL for DPM. To be conservative, the acute REL for Acrolein (i.e., 2.5 µg/m^3) is used instead given that Acrolein is a major component of diesel exhaust and is considered the worst-case acute REL for diesel exhaust emissions.

A chronic hazard index of 1.0 is considered individually significant. The highest maximum chronic and acute hazard index associated with the unmitigated emissions from project construction at residential sensitive receptors would be 0.383 and 2.618, respectively; refer to Appendix B, Air Quality and GHG Modeling Outputs. Therefore, without mitigation, there is a potentially significant acute hazard risk during project construction at residential sensitive receptors.

Operation

The proposed project would involve the development of residential, office, retail, and restaurant uses that would result in very limited operational activities, including landscaping maintenance operations and boilers for restaurant uses, that would not generate excessive DPM or other TAC emissions. According to CARB, land uses that generate excess DPM or other TAC emissions include freeways and high-traffic roads, distribution centers, rail yards, ports, refineries, chrome platers, dry cleaners, and gasoline dispensing facilities.[19] The project does not include any of these uses. Therefore, operation of the proposed project is not anticipated to result in an elevated cancer or other health risk to nearby sensitive receptors, and, as such, the health impact during operation of the proposed project would be less than significant.

Carbon Monoxide Hotspots

An adverse CO concentration, known as a hotspot, would occur if an exceedance of the State one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthy levels (i.e., adversely affect residents, school children, hospital patients, the elderly, etc.).[20] Because traffic congestion is highest at intersections where vehicles queue and are subject to reduced speeds, these hot spots are typically produced at intersection locations.[21]

According to the analysis of Impact 5.2-5 in the GPU PEIR, under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour, or 24,000 vehicles per hour where vertical and/or horizontal air does not mix, to generate a significant CO impact. The analysis of Impact 5.2-5 in the GPU PEIR determined that the buildout of the GPU would not result in the increase in traffic volume that would generate a CO hotspot and that CO hotspots impacts would be less than significant.

As identified in Section 4.13, Transportation, of this Supplemental EIR, buildout of the proposed project would generate a net increase of 3,018 trips per day, resulting in a much lower vehicles per hour than the proposed project's daily total at any single intersection. Correspondingly, the vehicles per hour generated by the proposed project would be much lower than the 24,000 vehicles per hour needed to generate a CO hot spot. Therefore, consistent with the analysis of Impact 5.2-5 in the GPU PEIR, impacts related to CO hotspots would be less than significant.

For the reasons aforementioned, the proposed project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be significant and unavoidable as related to the localized

[19] California Air Resources Board, 2005, Air Quality and Land Use Handbook: A Community Health Perspective, available at: http://www.aqmd.gov/docs/default-source/cega/handbook/california-air-resources-board-air-quality-and-land-use-handbook-a-community-health-perspective.pdf.

[20] California Office of Environmental Health Hazard Assessment, 2015, Air Toxics Hot Spot Program Risk Assessment Guidelines – Guidance Manual for Preparation of Health Risk Assessments, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

[21] United States Environmental Protection Agency Office of Air Quality Planning and Standards Technical Support Division, 1992, Guideline for Modeling Carbon Monoxide from Roadway Intersections, available at: https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=2000F7L2.TXT.

construction and operation emissions. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

To reduce the potentially significant health risk impact for residential sensitive receptors during project construction, implementation of GPU PEIR MM AQ-1 requiring the use of construction equipment rated by the USEPA as having Tier 4 emissions limits, as provided under Threshold AQ-2, would be required, which is evaluated in the "Level of Significance After Mitigation" section below. No project-specific mitigation measures are required or included.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold AQ-3 were determined to be less than significant with the implementation of GPU PEIR MM AQ-1. Pursuant to GPU PEIR MM AQ-1, the proposed project requires use of construction equipment rated by the USEPA as having Tier 4 (model year 2008 or newer) emissions limits, applicable for engines between 50 and 750 horsepower. As shown in Table 4.1-13: Project Maximum Individual Cancer Risk During Construction (Mitigated), the total highest calculated carcinogenic risk would be approximately 7.36 in one million and would not exceed the SCAQMD threshold of 10 in one million with the implementation of GPU PEIR MM AQ-1. Therefore, construction activities associated with the proposed project are not anticipated to result in a significant cancer or other health risk to nearby sensitive receptors, and, as such, the health impacts during construction of the proposed project would be less than significant with mitigation incorporated.

Table 4.1-13: Project Maximum Individual Cancer Risk During Construction (Mitigated)

Exposure Scenario	Maximum Cancer Risk (Risk per Million)[a]	Significance Threshold (Risk per Million)	Exceeds Significance Threshold?
Phase 1 Maximum at a Residential Sensitive Receptor[b]	2.19	10	No
Phase 2 Maximum at a Residential Sensitive Receptor[c]	1.82	10	No
Phase 3 Maximum at a Residential Sensitive Receptor[d]	2.75	10	No
Phase 4 Maximum at a Residential Sensitive Receptor[e]	0.51	10	No
Phase 5 Maximum at a Residential Sensitive Receptor[f]	0.09	10	No
Total Maximum at a Residential Sensitive Receptor[g]	**7.36**	**10**	**No**

Notes:

a. Refer to the Air Quality and GHG Modeling Outputs (Appendix B).
b. The maximum cancer risk would be experienced at UTM NAD83 Zone 11S coordinate location 417531.03, 3728912.25. The MICR risk is at the residential receptor located to the north of the project.
c. The maximum cancer risk would be experienced at UTM NAD83 Zone 11S coordinate location 417531.03, 3728912.25. The MICR risk is at the residential receptor located to the north of the project.
d. The maximum cancer risk would be experienced at UTM NAD83 Zone 11S coordinate location 417606.03, 3728912.25. The MICR risk is at the residential receptor located to the north of the project.
e. The maximum cancer risk would be experienced at UTM NAD83 Zone 11S coordinate location 417606.03, 3728912.25. The MICR risk is at the residential receptor located to the north of the project.
f. The maximum cancer risk would be experienced at UTM NAD83 Zone 11S coordinate location 417606.03, 3728912.25. The MICR risk is at the residential receptor located to the north of the project.
g. As a conservative analysis, the total maximum cancer risk represents the sum of the maximum cancer risk exposures during each individual construction phase.

Source: Refer to the Air Quality and GHG Modeling Outputs (Appendix B) for assumptions used in this analysis.

Further, by complying with GPU PEIR MM AQ-1, the project would reduce construction-related DPM emissions and associated acute risk, and the highest maximum chronic and acute hazard index associated with the mitigated emissions from project construction at residential sensitive receptors would be 0.136 and 0.918. It should be noted that the acute hazard was calculated using the REL of Acrolein, which only constitutes a small portion of total DPM emissions. As such, the acute hazard value presented is conservative. Therefore, the project's chronic and acute hazard index would be less than significant with mitigation incorporated.

Therefore, by complying with GPU PEIR MM AQ-1, the health impacts during construction of the proposed project would be less than significant.

AQ-4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? *[GPU PEIR Impact 5.2-6]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

The analysis of Impact 5.2-6 in the GPU PEIR determined that, although construction of residential, nonresidential, and nonindustrial land uses under the buildout of the GPU could result in the generation of odors, such as exhaust from construction equipment, application of asphalt and architectural coatings during construction, these construction-related odors would be temporary and intermittent and would be confined to the immediate vicinity of the construction equipment in use; short-term construction-related odors were expected to cease upon the drying or hardening of odor-producing materials. Similarly, the analysis of Impact 5.2-6 in the GPU PEIR determined that, although residential, nonresidential, and nonindustrial uses could result in the generation of odors, such as exhaust from landscaping equipment and cooking during operation, these uses are not considered potential generators of odor that could affect a substantial number of people. Therefore, the GPU PEIR concluded that potential odor impacts from residential and nonresidential land uses associated with the GPU were considered less than significant.

Proposed Project Impact Analysis

Construction

As with the analysis of Impact 5.2-6 in the GPU PEIR, construction activities associated with the proposed project may generate detectable odors from heavy-duty equipment exhaust and architectural coatings. However, construction-related odors would be short-term in nature and cease upon completion of construction activities. In addition, the proposed project would be required to comply with CCR, Title 13, Sections 2449(d)(2) and 2485, to minimize the idling time of construction equipment either by requiring equipment to be shut off when not in use or limiting idling time to no more than five minutes. Compliance with this existing regulation would further reduce the detectable odors from heavy-duty equipment exhaust. In addition, the proposed project would be required to comply with the SCAQMD Rule 1113, which requires VOC contents of paint to not exceed 50 grams per liter. Any odor impacts to existing adjacent land uses would be short-term and localized. As such, the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people, and impacts related to construction odors would be less than significant.

Operation

According to the *Odor Complaints, Health Impacts, and Monitoring Methods* prepared for CARB, odors typically come from industrial facilities.[22] The primary industries that tend to lead to odors include wastewater treatment plants, municipal solid waste landfills, trash transfer stations, composting facilities, animal agriculture, chemical and petroleum industries, and roadkill collection facilities. The proposed project would not include any of these uses or odor sources. Because the proposed project would include restaurants, there is the potential for uses within the immediate area to experience odors associated with restaurant operations. However, the proposed project would be required to comply with SCAQMD Rule 402 (Nuisance), which prohibits emission of any material that causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of any person. Compliance with SCAQMD Rule 402 would ensure potential restaurant-related odors during proposed project operation would not create objectionable odors affecting a substantial number of people, and impacts related to odors during proposed project operation would be less than significant.

In conclusion, impacts resulting from the proposed project would be less than significant and would be the same as the impacts disclosed in the GPU PEIR, which were determined to be less than significant as related to residential, nonresidential, and nonindustrial land uses.

For the reasons aforementioned, the proposed project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be less than significant as related to residential, nonresidential, and nonindustrial uses. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold AQ-4 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold AQ-4 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

4.1.6 CUMULATIVE IMPACTS

IMPACT ANALYSIS

Consistency with Applicable Air Quality Plan

GPU PEIR Impact Summary

According to the GPU PEIR, the extent of analysis of cumulative impacts for air quality is based on the regional boundaries of the SCAB. As concluded in the GPU PEIR, the additional population growth forecasted for the buildout of the GPU and the associated emissions would not be consistent with the assumption of the AQMP. The GPU PEIR acknowledged that the incorporation of GPU PEIR MM AQ-1 and MM AQ-2 into future development projects under the buildout of the GPU would contribute to reduced criteria air pollutant emissions and that compliance with the RRs, goals, and policies of the GPU would promote increased capacity for alternative

[22] California Air Resources Board, 2019, Odor Complaints, Health Impacts, and Monitoring Methods, available at: https://ww2.arb.ca.gov/sites/default/files/classic/research/apr/past/18rd010.pdf.

transportation modes, implementation of TDM strategies, and energy efficiency. Nonetheless, the GPU PEIR concluded that no further mitigation measures were available to reduce impacts to below SCAQMD significance thresholds due to the magnitude of growth and associated emissions that would be generated by the buildout of the GPU and that impacts related to the GPU's consistency with the AQMP would be significant and unavoidable. While the GPU PEIR found this project-level impact to be significant and unavoidable, the GPU PEIR did not identify any significant cumulative impacts related to consistency with the applicable air quality plan.

Proposed Project Impact Analysis

The cumulative scenario for the proposed project includes buildout of the GPU and the 32 related projects.[23] The GPU PEIR identified a significant impact related to the GPU's consistency with the AQMP, to which the related projects could incrementally contribute. As a result, the combined cumulative impact related to consistency with the AQMP is potentially significant.

For purposes of the cumulative air quality analysis, the project's cumulative air quality impacts are determined based on consistency with the SCAQMD's AQMP. As analyzed above, construction and operational emissions of criteria air pollutants of the proposed project would be lower than SCAQMD thresholds with implementation of project-specific MM AQ-1. Therefore, the proposed project would not result in an increase in the frequency or severity of existing air quality violations. Further, the proposed project would be consistent with the SCAQMD and SCAG's goals and policies (refer to Section 4.8, Land Use and Planning, of this Supplemental EIR). In addition, the growth anticipated to be generated by the proposed project would be consistent with SCAG's growth forecast and, therefore, is consistent with the 2022 AQMP. With implementation of project-specific MM AQ-1, the proposed project's contribution to cumulative impacts related to consistency with the AQMP would not be cumulatively considerable, and therefore, cumulative impacts would be less than significant.

Regional and Localized Emissions

GPU PEIR Impact Summary

As concluded in the GPU PEIR, air pollutant emissions associated with buildout of the GPU would cumulatively contribute to the nonattainment designations in the SCAB. While individual projects accommodated under the GPU may not exceed the SCAQMD regional significance thresholds, the likely scale and extent of construction activities associated with the GPU would likely continue to exceed the relevant SCAQMD thresholds for some projects. Therefore, construction-related regional air quality impacts of developments that would be accommodated by the GPU would be significant and unavoidable, despite implementation of GPU PEIR MM AQ-1.

Operationally, implementation of the GPU would increase criteria air pollutant emissions compared to existing conditions based on the difference between existing land uses and land uses associated with buildout of the GPU and an estimate of population and employment in the City by 2045. Long-term emissions for VOC, NO_x, and CO would exceed the daily SCAQMD thresholds, thereby as precursors to the formation of O_3, PM_{10}, and $PM_{2.5}$, would contribute to the O_3, PM_{10}, and $PM_{2.5}$ nonattainment designations of the SCAB. Therefore, future development projects that would be accommodated by the GPU could exceed the SCAQMD regional emissions thresholds, resulting in significant and unavoidable impacts to operational air quality impacts despite implementation of GPU PEIR MM AQ-2.

[23] Twenty of the 32 related projects are located within the City of Santa Ana, and thus, are included as part of the GPU buildout.

Proposed Project Impact Analysis

As previously discussed, the SCAB is designated non-attainment for O_3 8-hour NAAQS and for $PM_{2.5;}$ the Los Angeles County portion of the SCAB is also designated as non-attainment for Pb NAAQS. The SCAB is also designated non-attainment for the O_3, PM_{10}, and $PM_{2.5}$ CAAQS. The nonattainment designation of the SCAB is an adverse cumulative condition to which Buildout of the GPU and the related projects would contribute. Based on guidance from the SCAQMD, projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.[24] Buildout of the GPU and each related project that is subject to CEQA would be required to determine if project-specific construction and operational emissions would exceed the SCAQMD significance thresholds.

Per SCAQMD guidance, to evaluate the proposed project's contribution to the nonattainment status of the SCAB, modeling was conducted to quantify the proposed project's emissions for comparison with the SCAQMD threshold of significance.[25] The SCAQMD recommends evaluating cumulative impacts for individual projects based on whether the project exceeds the SCAQMD's recommended daily thresholds for project-specific impacts for those pollutants for which the SCAB is in non-attainment. Thus, the cumulative analysis of air quality impacts follows SCAQMD's guidance such that construction or operational Project emissions would be considered cumulatively considerable if Project-specific emissions exceed an applicable SCAQMD significance threshold.

As presented in the analyses above, the proposed project's regional and localized emissions during operation would not exceed any of the SCAQMD significance thresholds, with the exception of the regional threshold for VOC during operation. Additionally, there is a potentially significant individual cancer risk and acute hazard risk during project construction at residential sensitive receptors. However, implementation of project-specific MM AQ-1 would reduce the proposed project's operation-phase VOC emissions below the SCAQMD regional threshold of significance. Further, implementation of GPU PEIR MM AQ-1 would require the use of construction equipment rated by the USEPA as having Tier 4 emissions limits for engines between 50 and 750 horsepower to reduce the carcinogenic and acute hazard risks. Therefore, with implementation of project-specific MM AQ-1 and GPU PEIR AQ-1, the proposed project's contribution to regional and localized construction and operational emissions would not be cumulatively considerable, and cumulative air quality impacts related to regional and localized construction and operational emissions would be less than significant.

Odor Impacts

GPU PEIR Impact Summary

As concluded in the GPU PEIR, impacts from potential odors generated from the construction and operation of residential, nonresidential, and nonindustrial land uses associated with the buildout of the GPU were considered to be less than significant. However, specific land uses associated with the GPU (e.g., wastewater treatment plants and food-processing facilities) may generate potentially significant odor impacts for a substantial number of people and as such, the GPU PEIR would implement GPU PEIR MM AQ-4, requiring an odor management plan for such land uses. The GPU PEIR did not identify any significant cumulative odor impacts.

[24] South Coast Air Quality Management District, 2003, White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution, Appendix D, available at: http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper.pdf.

[25] Ibid.

Proposed Project Impact Analysis

As with the analysis in the GPU PEIR, buildout of the GPU and the related projects would be required to comply with SCAQMD Rule 402, which would ensure that each project would not create objectionable odors affecting a substantial number of people. Further, development under the GPU that would potentially emit nuisance odors would be required to implement GPU PEIR MM AQ-4. Therefore, the potential cumulative impacts from odors generated by GPU buildout and the related projects would be less than significant.

The proposed project would comply with SCAQMD Rule 402 and would not include land uses known to generate substantial odors. The proposed project's contribution to cumulative impacts associated with odors would not be cumulatively considerable, and, as such, cumulative impacts associated with odors during construction and operation would be less than significant.

MITIGATION MEASURES

Project-specific MM AQ-1, as included above to reduce the project's operational emissions of VOC, would reduce the project contribution of ozone precursors to the SCAB, to below the SCAQMD's thresholds of significance. Additionally, GPU PEIR MM AQ-1 would require the use of construction equipment rated by the USEPA as having Tier 4 emissions limits for engines between 50 and 750 horsepower to reduce the carcinogenic and acute hazard risks. With the incorporation of these mitigation measures, the proposed project would not have a considerable contribution to cumulative impacts related to consistency with applicable air quality plans or regional and localized emissions. Cumulative impacts related to odors would be less than significant and no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Cumulative impacts related to consistency with applicable air quality plans and regional and localized emissions were determined to be less than significant after mitigation. Cumulative impacts related to odors were determined to be less than significant.

4.2 CULTURAL RESOURCES

This section evaluates potential impacts to cultural resources, including historical and archaeological resources, that may result from implementation of the proposed project. Specifically, this section contains a summary of the federal, state, and local regulations related to cultural resources; a description of the existing setting as it pertains to built historical resources and archaeological resources; and an analysis of the potential impacts related to cultural resources associated with implementation of the proposed project as well as identification of mitigation measures for those impacts determined to be significant. As the project pursues buildout of part of the City's General Plan Land Use Plan, which was analyzed in the GPU PEIR, this section compares the project's impacts with the impacts identified in the GPU PEIR. The analysis in this section is based primarily on the information contained in the Cultural and Paleontological Resources Identification Memorandum prepared for the project by Michael Baker International, Inc. (August 28, 2024), which is included as Appendix C.

4.2.1 REGULATORY FRAMEWORK

FEDERAL

Archaeological Resources Protection Act

The Archaeological Resources Protection Act was passed in 1979 and amended in 1988, in response to the need for more effective law enforcement tools to protect archaeological resources on public lands. The Act governs the excavation of archaeological sites and the removal and disposition of archaeological resources from those sites on federal and tribal lands in the United States. The Act aims to protect archaeological resources and sites on federal and tribal lands through providing clear language to ensure enforceability of the Act, requirements to be met before issuance of permits, and the authority to promulgate regulations, amongst others pursuant to 32 Code of Federal Regulations (CFR) Part 229.

National Historic Preservation Act

The National Historic Preservation Act (NHPA) of 1966 established the National Register of Historic Places (National Register) as "an authoritative guide to be used by federal, State, and local governments, private groups and citizens to identify the Nation's historic resources and to indicate what properties should be considered for protection from destruction or impairment" (36 CFR 60.2). The National Register recognizes a broad range of cultural resources that are significant at the national, state, and local levels and can include districts, buildings, structures, objects, prehistoric archaeological sites, historic-period archaeological sites, traditional cultural properties, and cultural landscapes. A resource that is listed in or eligible for listing in the National Register is considered "historic property" under Section 106 of the NHPA.

To be eligible for listing in the National Register, a resource must be significant in American history, architecture, archaeology, engineering, or culture. A property of potential significance must meet one or more of the following four established criteria:

A. The property is associated with events that have made a significant contribution to the broad patterns of our history;

B. The property is associated with the lives of persons significant in our past;

C. The property embodies the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or

that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. The property has yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting one or more of the criteria of significance, a property must have integrity, which is defined as "the ability of a property to convey its significance."[1] Whether a resource retains sufficient integrity for listing is determined by evaluating the seven aspects of integrity defined by the National Park Service: location, setting, design, materials, workmanship, feeling, and association. Since integrity depends on a resource's placement within a historic context, integrity can be assessed only after it has been concluded that the resource is in fact significant.

Structures, sites, buildings, districts, and objects over 50 years of age are eligible for listing in the National Register as significant historical resources. Properties under 50 years of age that are of exceptional importance or are contributors to a district can also be included in the National Register.[2]

The Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR Part 68, 1995) consists of standards for preservation, rehabilitation, restoration, and reconstruction of historic properties. The Standards and their associated guidelines are intended to be applied to a wide variety of resource types, including buildings, sites, structures, objects, and districts, and have been adopted at the federal, state, and local levels. The Standards are regulatory for grants-in-aid projects assisted through the Historic Preservation Fund authorized by the NHPA.

Properties listed in or eligible for listing in the National Register are also eligible for listing in the California Register of Historic Resources, and as such, are considered historical resources for CEQA purposes.

STATE

California Public Resources Code Section 21084.1 and State CEQA Guidelines Section 15064.5

Section 21084.1 of the California Public Resources Code (PRC) states that for purposes of CEQA, "a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment" (14 California Code of Regulations [CCR] Section 15064.5). This necessitates a two-part inquiry: first, it must be determined whether a given project involves a historical resource, and if it does, a determination must be made as to whether the project may result in a "substantial adverse change in the significance" of that historical resource.

To answer these questions, guidance relating to historical resources has been formally codified as State CEQA Guidelines Section 15064.5, which define a "historical resource" as any one of the following, for purposes of CEQA compliance (14 CCR Section 15064.5):

- A resource listed in or determined to be eligible by the State Historical Resources Commission for listing in the CRHR.
- A resource included in a local register of historical resources or identified as significant in a qualified historical resource survey, shall be presumed to be historically or culturally

[1] National Park Service, 1995, National Register Bulletin 15, How to Apply the National Register Criteria for Evaluation, available at: https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf.
[2] Ibid.

significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrate that it is not historically or culturally significant.

- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing in the CRHR.

Once it has been determined that a historical resource is present, it must then be determined whether the project may result in a "substantial adverse change" to that resource. Substantial adverse change is defined as "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource will be materially impaired" (14 CCR Section 15064.5). The significance of a historical resource is materially impaired when a project:

a. Demolishes or materially alters in an adverse manner those physical characteristics of an historical resources that convey its historical significance and that justify its inclusion in, or eligibility for, the CRHR; or

b. Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the PRC of its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project established by a preponderance of evidence that the resource is not historically or culturally significant; or

c. Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a lead agency for the purposes of CEQA.

CEQA requires a lead agency to identify measures to mitigate significant adverse impacts to historical resources. The State CEQA Guidelines state that "the lead agency shall ensure that any adopted measures to mitigate or avoid significant adverse changes are fully enforceable through permit conditions, agreements, or other measures" deemed prudent and feasible" (14 CCR Section 15064.5).

California Register of Historical Resources

The California Register is "an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1[a]). The criteria for eligibility for the California Register are based upon National Register criteria (PRC Section 5024.1[b]). Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register. To be eligible for the California Register, a prehistoric or historic-period property must be significant at the local, state, and/or federal level under one or more of the following four criteria (14 CCR Section 4852):

1. The property is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2. The property is associated with the lives of persons important in our past;
3. The property 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
4. The property has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the California Register must meet one of the criteria of significance described above and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register (14 CCR Section 4852).

Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following (14 CCR Section 4851):

- California properties listed on the National Register and those formally determined eligible for the National Register;
- California Registered Historical Landmarks from No. 770 onward; and
- Those California Points of Historical Interest that have been evaluated by the Office of Historic Preservation (OHP) and have been recommended to the State Historical Commission for inclusion on the California Register.

Other resources that may be nominated to the California Register include (14 CCR Section 4851):

- Historical resources with a significance rating of Category 3 through 5 (those properties identified as eligible for listing in the National Register, the California Register, and/or a local jurisdiction register);
- Individual historical resources;
- Historic districts; and
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

California Health and Safety Code Section 7050.5

California Health and Safety Code Section 7050.5 outlines procedures to be followed in the event human remains are discovered during the course of California projects. If human remains are encountered, all work must stop at that location and the County Coroner must be immediately notified and advised of the finding. The County Coroner would investigate “the manner and cause of any death” and make recommendations concerning treatment of the human remains. The County Coroner must make their determination within two working days of being notified. If the human remains are determined to be Native American, the County Coroner shall contact the California Native American Heritage Commission. The Commission would in turn “…immediately notify those persons it believes to be most likely descended from the deceased Native American.” The descendants would then inspect the site and make recommendations for the disposition of the discovered human remains. This recommendation from the most likely descendants may include the scientific analysis of the remains and associated items.

California Public Resources Code Sections 5097.5 and 5097.7

California PRC Section 5097.5 as amended, and PRC Section 5097.7, strengthens existing state law regarding criminal penalties and restitution for crimes of archaeological site vandalism, theft of archaeological materials or artifacts in curation facilities, and damages to historic buildings and other cultural properties on state and local government lands. The amendment and new section closely follow federal law, specifically the Archaeological Resources Protection Act of 1979.

LOCAL

Santa Ana Historic Resources Commission

The role of the Santa Ana Historic Resources Commission (HRC) is to recognize and preserve historic structures representative of the City's heritage. The HRC oversees the City's Historic Preservation Program, which promotes the identification, evaluation, rehabilitation, adaptive use, and restoration of historic structures. Chapter 30 of the Santa Ana Municipal Code established the Santa Ana Register of Historical Properties (Santa Ana Register), which contains over 700 historic properties within the City. Any improvements or non like-for-like alterations to a property on the Santa Ana Register, as well as contributing properties in a historic district, must meet the Secretary of Interior Standards for Rehabilitation and require a Certificate of Appropriateness. The HRC considers approval of major alterations, relocations, or demolitions of properties identified on the Santa Ana Register.

The City has three National Register Districts: Downtown Santa Ana, French Park, and Floral Park. Additionally, while not a National Register District, the historic buildings in the Heninger Park Neighborhood have zoning protection through Specific Development 40 (SD-40). The proposed project is not located within any of the National Register Districts or the Heninger Park Neighborhood.

City of Santa Ana General Plan Update

The City's GPU includes regulatory requirements (RR), goals, and policies related to cultural resources. The following RRs and Historic Preservation Element and Land Use Element goals and policies are applicable to the proposed project:

Regulatory Requirements

RR CUL-1: California Health and Safety Code Section 7050.5 requires that if human remains are discovered within the proposed project site, disturbance of the site shall halt and remain halted until the coroner has investigated the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes or has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

Historic Preservation Element

Goal HP-1 Historic Areas and Resources: Preserve and enhance Santa Ana's historic areas and resources to maintain a unique sense of place.

- *Policy HP-1.1 Architectural and Design Standards*: Preserve unique neighborhoods and structures in Santa Ana through implementation of the Citywide Design Guidelines and historic preservation best practices.

- *Policy HP-1.4 Protecting Resources*: Support land use plans and development proposals that actively protect historic and cultural resources. Preserve tribal, archaeological, and paleontological resources for their cultural importance to communities as well as their research and educational potential.

Land Use Element

Goal LU-3 Compatibility of Uses: Preserve and improve the character and integrity of existing neighborhoods and districts.

- *Policy LU-3.5 Adaptive Reuse:* Encourage the preservation and reuse of historical buildings and sites through flexible land use policies.

City of Santa Ana Municipal Code, Chapter 30: Historic Preservation Ordinance

Chapter 30 of the Santa Ana Municipal Code (Historic Preservation Ordinance), adopted in 1998 and amended since, established Santa Ana's Historic Preservation Program, created the HRC to oversee the program, and established the Santa Ana Register to list local historically significant properties. The Historic Preservation Ordinance provides criteria for the designation of buildings, structures, objects, or sites of historical or archeological importance. The City administers a review process for exterior modifications, major alterations, relocations, and/or demolitions of historic properties based on conformance with the Secretary's Standards.

As defined by Chapter 30 of the Santa Ana Municipal Code, a local historic district refers to a collection or group of historic properties within a defined area. (§§ 30-25 through 30-30). According to Chapter 30 of the Santa Ana Municipal Code, a local historic district shall be designated only if it meets one or more of the following standards:

1. The area constitutes a distinct section of the City and has special character, historical, architectural, or aesthetic interest and value.
2. The area provides significant examples of architectural values of the past or landmarks in the history of architecture.
3. The area serves as a reminder of past eras, events, or persons important in the history of the City, the county, the state or the United States of America or illustrates past living styles for future generations to observe, study, or inhabit.
4. The area is the site of a historically or culturally significant ground, garden, or object.

4.2.2 ENVIRONMENTAL SETTING

PREHISTORIC BACKGROUND

The earliest habitation of the Los Angeles Basin and Santa Ana River watershed likely occurred in the Paleocoastal or Paleoindian period, which is generally dated between about 13,000 and 8,500 before present (BP).[3,4,5] These earliest inhabitants were highly mobile hunter-gatherers who left behind few archaeological remains.

[3] Arnold et al, 2004, The Archaeology of California, Journal of Archaeological Research 12(1):1–73, available at: https://www.researchgate.net/publication/226291464_The_Archaeology_of_California.

[4] Meyer, L. 1981, Los Angeles, 1781–1981, A special bicentennial issue of California History, Spring, California Historical Society, Los Angeles, available at: https://online.ucpress.edu/ch/article-abstract/60/1/25158013/92821/Front-Matter?redirectedFrom=PDF.

[5] Erlandson et al., 2007, One if by Land Two If by Sea: Who Were the First Californians? in California Prehistory: Colonization, Culture, and Complexity, available at:

The first uncontested evidence of human occupation in Los Angeles Basin and Santa Ana River watershed dates to about 9,000 BP during the Millingstone Cultural Horizon. Millingstone populations established permanent settlements that were located primarily on the coast and in other locations with reliable water sources and a variety of potential food sources (e.g., shellfish, seeds, and small animals). Artifacts from the Millingstone period generally consisted of ground stone artifacts including manos, metates, mortars, and pestles.[6,7]

The period between 3,500 BP and 1,500 BP is known as the Intermediate period. Increasing population pressures led to intensified exploitation of existing terrestrial and marine resources, enabled by technological innovations such as the circular fishhook and the use of the dart and atlatl for hunting. An increase in the number and size of settlements, as well as trade networks and greater craft specialization developed during this period.

The Late Prehistoric period, which began in approximately 1,500 BP and continued until European intrusion, was the period of the development and florescence of the Native American tribes encountered by the Spanish. The Late Prehistoric subsistence consisted of hunting, trapping, fishing, and gathering, and continued the pattern of increased population and sedentism.

ETHNOHISTORIC AND HISTORIC BACKGROUND

Spanish explorers first visited the coast of southern California in 1542. European settlement began in the area in 1769, and in 1771 Franciscan friars established Mission San Gabriel Arcángel, approximately 30 miles northwest of the project site. The Franciscans called the local Native Americans Gabrielinos after the mission. Gabrielino territory included the Los Angeles Basin, parts of the Santa Ana and Santa Monica Mountains, and San Clemente, San Nicolas, and Santa Catalina Islands. Gabrielino villages were most common along the coast and along the region's major rivers, where villages formed of domed semipermanent structures. The project area is located between two known Gabrieleño village locations: the Pasbenga, approximately 4 miles north, and the Lukupa, approximately 5.5 miles southwest.[8]

The majority of California's coastal Native American populations had entered the mission system by the early 1800s.[9] Due to introduced diseases that led to population decline and the Spanish use of the land for agriculture and grazing, the Gabrielinos' reliance on their traditional lifestyle grew increasingly untenable. In 1810, the 63,414-acre Rancho Santiago de Santa Ana, including the project area, was given as a land grant where Native Americans continued to live on and made up much of the rancho's work force.[10] California's Native Americans sometimes preferred

https://www.researchgate.net/publication/235764260_One_If_by_Land_Two_If_by_SeaWho_Were_the_First_Californians.

6 Warren, 1968, Cultural Tradition and Ecological Adaptation on the Southern California Coast.

7 Sutton and Gardner, 2010, Reconceptualizing the Encinitas Tradition of Southern California, Pacific Coast Archaeological Society Quarterly 42 (4): 1-64, available at: https://www.sandiegocounty.gov/content/dam/sdc/pds/ceqa/JVR/AdminRecord/IncorporatedByReference/Appendices/Appendix-E---Cultural-Resources-Report/Warren%201968_Cultural%20Tradition%20and%20Ecological%20Adapt.pdf.

8 McCawley, William, 1996, The First Angelinos: The Gabrielino Indians of Los Angeles, Banning, CA: Malki Museum Press, available at: https://primo.getty.edu/primo-explore/fulldisplay/GETTY_ALMA21141977360001551/GRI.

9 Jackson, Robert, 1999, Agriculture, Drought & Chumash Congregation in the California, Missions (1782-1834), available at: https://californiamissionsfoundation.org/articles/agriculturedroughtandchumashcongregation/.

10 Huntington Library, 1860, Plat of the Santiago de Santa Ana Rancho, available at: https://hdl.huntington.org/digital/collection/p15150coll4/id/11636, accessed February 2023.

to live as vaqueros and laborers on the region's vast land grants in order to avoid living more directly under the mission system.[11]

In 1821, Mexico won its independence from Spain. In 1834, the missions were secularized, and their lands divided up among politically connected elites. Little of the missions' lands and wealth went to the Native Americans. More than 600 ranchos were granted between 1833 and 1846 as the Mexican government sought to solidify its authority over Alta California amid fears of intrusion by the United States.

Alta California was captured by the United States during the Mexican American War of 1846–1848. The discovery of gold in California led to a population boom in the 1850s and 1860s. In 1869, William H. Spurgeon purchased approximately 70 acres of land and plotted a townsite, named Santa Ana in the tradition of Rancho Santiago de Santa Ana.[12] After nearly two decades of growth, hastened by the arrival of the Southern Pacific Railroad in 1877, Santa Ana was officially incorporated as a city in 1886, and Orange County was formed in 1889.[13,14,15]

Historical maps indicate that the project area and vicinity remained undeveloped well into the twentieth century. The earliest USGS maps, which date to the late nineteenth and early twentieth centuries, show the project area as undeveloped. The closest body of water was the braided channel of the Santa Ana River, approximately 0.3-mile northwest of the project site. Swamps were also located approximately 0.6-mile south of the project site.[16]

Outside the City's historic core, originally bound by First Street, Broadway, Seventh Street, and Spurgeon Street, Santa Ana remained predominantly agrarian and sparsely developed through much of the first half of the twentieth century. This was particularly true of the area surrounding the project site. Historical maps and aerial photographs depict that the landscape around the project site was previously characterized by large agricultural fields interspersed by modest, infrequent residences.[17,18,19]

Like many cities and towns in California, Santa Ana experienced a period of unprecedented growth during and following World War II as a result of wartime mobilization, improvement of regional transportation networks, and an abundance of local recreational opportunities. The population of Santa Ana exploded from 45,433 residents in 1950 to more than 100,000 by 1960, which led to suburbanized development within the City. New residential suburbs and commercial centers on the outskirts of Santa Ana were built, connected by the construction or enhancement of highways. Near the project site, California State Route 55 was completed in 1962, Interstate

[11] Phillips, George Harwood, 2010, Vineyards and Vaqueros: Indian Labor and the Economic Expansion of Southern California, 1771–1877, available at: https://books.google.com/books/about/Vineyards_Vaqueros.html?id=iErXSAAACAAJ.
[12] Advisory Council on Historic Preservation, n.d., Santa Ana, California, available at: https://www.achp.gov/preserve-america/community/santa-ana-california, accessed March 2023.
[13] Ibid.
[14] Goddard and Goddard, 1988, Santa Ana History, available at: https://www.santaanahistory.com/santa-ana-history, accessed March 2023.
[15] OrangeCounty.net, 2018, History of Santa Ana, available at: https://www.orangecounty.net/cities/SantaAna_history.html, accessed March 2023.
[16] United States Geological Survey, 1896, 1901, Historical Maps, available at: https://ngmdb.usgs.gov/topoview/viewer/#4/40.01/-100.06.
[17] United States Geological Survey, 1896, 1901, 1932, 1935, 1942, 1951, Historical Maps, available at https://ngmdb.usgs.gov/topoview/viewer/#4/40.01/-100.06.
[18] Orange County Archives, 1931, 1938, 1947, 1952, 1953, Aerial Photographs, available at: https://www.ocgis.com/ocpw/historicalimagery/index.html.
[19] Goddard and Goddard, 1988, Santa Ana History, available at: https://www.santaanahistory.com/santa-ana-history, accessed March 2023.

405 was completed in 1968, and State Route 73 was completed in the late 1970s. The project site was developed between 1972 and 1973, during the latter years of this period of mass suburbanization.[20,21,22]

PROJECT AREA BACKGROUND

Through the 1960s, uses in the project vicinity remained mostly for agricultural use. The first major retail intrusion into this rural setting occurred in 1967, when former lima bean producers C.J. Segerstrom & Sons constructed the South Coast Plaza mall on their land just south of the project site. As early as 1970, the firm set its sights on building an outdoor "village" market to complement the thriving South Coast Plaza. The resulting South Coast Village, which opened to the public in 1973, consisted of an open-air pedestrian mall, a separate theater building, and at least two other buildings that are no longer extant. All of the buildings of the South Coast Village were designed in the Shed architectural style. According to Bodrell Joer'dan Smith, the executive architect of the South Coast Village, the appearance of the South Coast Village was inspired by the Segerstroms' farming roots. Early tenants of the shopping center ranged from art galleries to clothing boutiques.[23,24,25,26,27,28,29,30]

EXISTING CONDITIONS

South Central Coastal Information Center Records Search

The South Central Coastal Information Center (SCCIC) records search indicated that ten studies have been completed within a half-mile search radius of the project site; no studies have been previously completed within the project site. Additionally, a total of three cultural resources are documented within the half-mile search radius of the project site, as identified in Table 4.5-1: Cultural Resources within Project Vicinity. None of these resources are located within or adjacent to the project site. No built environment resources within the project area were identified in the Built Environment Resource Directory.

[20] Goddard and Goddard, 1988, Santa Ana History, available at: https://www.santaanahistory.com/santa-ana-history, accessed March 2023.
[21] Richardson, Rob, 1994, Santa Ana at 125, available at: https://www.santaanahistory.com/santaanaat125, accessed March 2023.
[22] Kao, Kenneth, 2008, Orange County History: Suburbia and Today, available at: https://www.ocf.berkeley.edu/~kennyk/oc/recent.html, accessed March 2023.
[23] Orange County Archives, 1960, 1970, 1980, 1983, 1987, 1990, Aerial Photographs, available at: https://www.ocgis.com/ocpw/historicalimagery/index.html.
[24] Historicaerials.com, 1972, Aerial Photographs, available at: https://www.historicaerials.com/viewer.
[25] United States Geological Survey, 1965a, 1965b, 1974, Topographic Maps, available at: https://www.usgs.gov/programs/national-geospatial-program/historical-topographic-maps-preserving-past.
[26] Los Angeles Times, 1970, 1971a, 1971b, 1971c, 1971d, 1971e, 1972, 1973a, 1973b, 1973c, Newspapers, available at: https://www.latimes.com/archives.
[27] Hopkins, Mary, 1973, A Market Grows in a Bean Field, available at: https://www.newspapers.com/, accessed January 2023.
[28] House & Home, 1975a, South Coast Village: A study in successful shopping-center synergy, available at: https://usmodernist.org/HH/HH-1975-06.pdf.
[29] Google Earth, 1995, available at: https://earthengine.google.com/timelapse/.
[30] Linh, Jin, 2017, History of South Coast Plaza, available at: https://medium.com/@jinlinh/history-of-south-coast-plaza-9d5cbfeea422, accessed March 2023.

Table 4.2-1: Cultural Resources within Project Vicinity

Resource Number	Description	Eligibility Status	Location in Relation to Project Site
P-30-100342	Isolate – Two historic period ceramic fragments	Unevaluated	Outside of project site
P-30-100343	Isolate – Historic period ceramic fragment	Unevaluated	Outside of project site
P-30-100344	Isolate – Historic period glass bottle fragment	Unevaluated	Outside of project site

Source: Refer to the Cultural and Paleontological Resources Identification Memorandum (Appendix C).

Historical Evaluation of the South Coast Plaza Village

The Cultural and Paleontological Resources Identification Memorandum (Appendix C) evaluated the existing South Coast Plaza Village for eligibility for listing on the California Register, in accordance with Section 15064.5(a)(2)-(3) of the State CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code, with the following results:

1. *Criterion 1:* Research did not demonstrate that this property is associated with events significant to the broad patterns of our history or culture at the local, state, or national level. South Coast Village was completed in 1973, at the latter end of the mid-century period of suburbanized growth in Santa Ana. This property, particularly when considered separately from its parent development South Coast Plaza, is not directly or significantly associated with this period in history and is not known to have individually made a significant contribution to other broad patterns of local, regional, state, or national culture or history. Therefore, the property is recommended not eligible for listing in the California Register under Criterion 1.
2. *Criterion 2:* Research failed to indicate that South Coast Village is associated with the lives of persons who significantly contributed to culture or history at the local, state, or national level. Although Henry T. Segerstrom and other leading members of the C.J. Segerstrom & Sons firm may be considered significant for their prominent roles as moguls of commercial development in Southern California, this small pedestrian mall is not the best reflection of their impact on their field or community. Therefore, this property is recommended not eligible under California Register Criterion 2.
3. *Criterion 3*: The historic-period buildings that comprise South Coast Village display elements of the Shed architectural style, which was popular in the United States during the mid- to late twentieth century. These buildings were not conceptualized early in the period of significance or by one of the progenitors of the Shed style, and their design did not have repercussions for the adoption of the style in other commercial settings. These buildings are relatively simple, hybridized iterations of the Shed style, incorporating a variety of unrelated traditional architectural details. South Coast Village is also not significant as an early or important example of the open-air pedestrian mall property type.

   South Coast Village is not significant under Criterion 3 for its association with a master architect, builder, or craftsperson. A master is a figure of generally recognized greatness in architecture or craftsmanship. To be eligible, a property must express a particular phase in the development of the master's career, a pivotal aspect of their work, or a particular

idea or theme in their craft. As such, a property is not eligible as the work of a master simply because it was designed by a prominent architect or constructed by a successful builder. The historic-period buildings that comprise South Coast Village were designed by renowned architect Bodrell Joer'dan Smith of Bodrell Joer'dan Smith & Associates. However, the complex lacks striking architectural elements and high artistic value. The subject property is a modest, unexemplary representation of those accomplishments when compared against their vast bodies of work and is not one of the notable commissions designed by Smith. To support this, South Coast Village is not listed among Bodrell Joer'dan Smith & Associates' commercial designs in their 1970s promotional portfolio and is absent from the past projects section of Lifescapes International's website. In summary, this property is recommended not eligible for listing in the California Register under Criterion 3.

4. *Criterion 4*: The built environment of the subject property is not likely to yield valuable information which will contribute to our understanding of human history because the property is not and never was the principal source of important information pertaining to significant events, people, architectural style, or commercial development. Therefore, this property is recommended not eligible for listing in the California Register under Criterion 4.

Based on the evaluation of the project site under the criteria, the project property is recommended ineligible for listing in the California Register and is not otherwise historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. As such, the existing South Coast Plaza Village is not a historical resource as defined by State CEQA Guidelines Section 15064.5(a).

Archaeological Sensitivity

Geologic and soils maps indicate that the project area contains surficial deposits of younger Quaternary alluvial sediments which have the potential to contain buried archaeological deposits. As shown in historic maps, the Santa Ana River and swamps located near the project site would have provided abundant resources to the area's past inhabitants. The Santa Ana river's course, which was located closer to the project site at times, heighten the sensitivity of the project area for buried cultural resources.

Since the late nineteenth and early twentieth centuries, the project area has experienced an extensive history of disturbances. The current condition of the project site is entirely developed by South Coast Village and adjacent roads. As South Coast Village was completed in 1973, building methods at the time and the installation of associated utilities would have resulted in the disturbance of archaeological sites buried at shallow depths. The sensitivity of the project site at the surface and near surface is low due to past disturbances. The sensitivity for potential buried prehistoric archaeological sites increases in the undisturbed soils at lower depths.

4.2.3 THRESHOLDS OF SIGNIFICANCE

The significance thresholds used to evaluate the impacts of the proposed project related to cultural resources are based on Appendix G of the State CEQA Guidelines. A project would have a significant impact related to cultural resources if it would:

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

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

C-3: Disturb any human remains, including those interred outside of dedicated cemeteries.

4.2.4 METHODOLOGY

The Cultural and Paleontological Resources Identification Memorandum (Appendix C) prepared for the proposed project included a SCCIC records search, literature and historical map review, Santa Ana Historical Preservation Society consultation, Sacred Lands File search, built environment and archaeological field surveys, California Register of Historical Resources evaluation, and buried archaeological site sensitivity analysis to determine if the project site contains historic resources.

SOUTH CENTRAL COASTAL INFORMATION CENTER RECORDS SEARCH

The SCCIC records search was completed on February 1, 2023, and included the project site and a half-mile search radius. As part of the records search, the following federal and California inventories were reviewed: Archaeological Determinations of Eligibility, California Inventory of Historic Resources, California Points of Historical Interest, California Historical Landmarks, and the Built Environment Resource Directory.

SACRED LANDS FILE SEARCH AND SANTA ANA HISTORICAL PRESERVATION SOCIETY CONSULTATION

The Native American Heritage Commission's response to the request for the Sacred Lands File search was received on January 10, 2023. The Sacred Lands File had been searched with negative results. On January 19, 2023, a request was sent to the Santa Ana Historical Preservation Society for any information or concerns regarding historical resources within the project area. No response was received.

FIELD SURVEYS

An intensive built environment survey of the project site was conducted on January 19 and January 20, 2023. Photographs and notes were taken during the survey. Notes consisted of observations of exposed building elevations, architectural design, materials, and alterations. An archaeological field survey was not completed because the project site is fully landscaped and hardscaped with no exposed native soils.

HISTORICAL EVALUATION

The evaluation for potential historical resources was based on State CEQA Guidelines Section 15064.5, which states that historical resources are "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." In addition, the evaluation was based on the criteria for listing on the California Register of Historical Resources. A cultural resource determined to meet one or more of the criteria is considered a historical resource under CEQA.

ARCHAEOLOGICAL SITE SENSITIVITY ANALYSIS

Section 15064.5(a)(3)(D) of the State CEQA Guidelines generally defines archaeological resources as any resource that "has yielded, or may be likely to yield, information important in prehistory or history." Archaeological resources are features, such as tools, utensils, carvings, fabric, building foundations, etc., that document evidence of past human endeavors and that may be historically or culturally important to a significant earlier community. The potential for the project site to contain buried archaeological resources was based on a review of historical maps, including geologic and soils maps of the project area, and the SCCIC records search.

4.2.5 PROJECT IMPACTS

C-1 Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5? *[GPU PEIR Impact 5.4-1]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to Impact 5.4-1 of the GPU PEIR, future development enabled by the GPU could result in significant direct and/or indirect impacts to historical resources in the absence of mitigation. Potential impacts to historical resources resulting from future development activities pursuant to the GPU will depend on where such development occurs and the nature of the proposed activity. The GPU PEIR notes that the South Bristol Street Focus Area has a low potential to contain built historical resources. The GPU PEIR concluded that buildout of the GPU would result in significant and unavoidable impacts to historical resources.

The GPU PEIR states GPU PEIR MM CUL-1 would require a Historical Resources Assessment for structures 45 years or older, and GPU PEIR MM CUL-2 would require the use of the Secretary of the Interior's Standards. However, in situations where future development cannot comply with the Secretary's Standards and significant impacts cannot be avoided, the City shall require at a minimum that the affected historical resources are documented consistent with GPU PEIR MM CUL-3, which requires the documentation, education, and memorialization of the historical resource. The GPU PEIR's Historical Resources Technical Report determined that unavoidable impacts to historical resources resulting from future development under the GPU will be reduced to the maximum extent feasible, but will still be significant, with implementation of GPU PEIR MM CUL-3. Therefore, the GPU PEIR concluded development under the GPU would result in significant and unavoidable impacts.

Proposed Project Impact Analysis

As discussed in Section 4.2.2, Environmental Setting, the SCCIC records search conducted for the project indicated that ten studies have been completed within a half-mile search radius of the project site; no studies have been previously completed within the project site. Additionally, a total of three cultural resources are documented within the half-mile search radius of the project site. None of these resources are located within or adjacent to the project area. No built environment resources within the project area were identified in the Built Environment Resource Directory.

As discussed in Section 4.2.2, Existing Setting, the existing South Coast Village was evaluated for listing on the California Register in accordance with Section 15064.5(a)(2)-(3) of the State CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code. Based on the evaluation of the South Coast Village under the criteria, it is recommended ineligible for listing in the California Register and is not historically or culturally significant.

Therefore, the project would not cause a substantial adverse change in the significance of a historical resource and no impact would occur. Impacts resulting from the proposed project would be less than the impacts disclosed in the GPU PEIR, which were determined to be significant and unavoidable despite inclusion of mitigation.

For the reasons aforementioned, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be significant and unavoidable. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

No impacts related to Threshold C-1 would occur. Therefore, no mitigation measures are required.

Regarding the mitigation measures in the GPU PEIR related to this threshold, the Cultural and Paleontological Resources Identification Memorandum (Appendix C) prepared for the project satisfies GPU PEIR MM CUL-1, which requires preparation of a Historical Resources Assessment for structures 45 years or older. Since no historical resources would be impacted by the project, GPU PEIR MM CUL-2 and GPU PEIR MM CUL-3 are not applicable to the project, as they require procedures for the proper treatment and mitigation of impacts to historical resources.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

The level of significance after mitigation is not applicable, as no impacts related to Threshold C-1 would occur and no mitigation measures are required or included.

C-2 Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? *[GPU PEIR Impact 5.4-2]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

The GPU PEIR states that development involving ground disturbance within the GP area has the potential to impact known and unknown archaeological resources. Based on literature review and records searches, eight archaeological resources have been recorded within the GP area, including four prehistoric sites, one multicomponent site, and three historic isolates. The GP area includes many locations that would have been favorable for prehistoric Native American occupation. While most of the GP area has been developed over the course of the twentieth century, buried resources may remain in areas where developments such as parking lots, parks, or structures with shallow foundations have required only minimal ground disturbance. A review of historical and ethnographic maps indicates a moderate likelihood that intact subsurface archaeological resources would be encountered during redevelopment. GPU PEIR MMs CUL-4 through CUL-7 were developed to reduce potential individual and cumulative impacts associated with future development and redevelopment. GPU PEIR MM CUL-4 requires an archaeological resources assessment be conducted for future development projects to identify any known archaeological resources and sensitivity of the site. GPU PEIR MMs CUL-5 through CUL-7 detail the next steps required should the archaeological resources assessment identify known resources or determine the site to have high or moderate resource sensitivity (GPU PEIR MM CUL-5 for all projects, GPU PEIR MM CUL-6 for high sensitivity, and GPU PEIR MM CUL-7 for moderate sensitivity). Upon compliance with GPU PEIR MMs CUL-4 through CUL-7, the GPU PEIR concluded that individual and cumulative impacts to archaeological resources would be reduced to less than significant levels.

Proposed Project Impact Analysis

The Cultural and Paleontological Resources Identification Memorandum (Appendix C) prepared for the proposed project included an archaeological resources assessment consistent with the requirements of the GPU PEIR MM CUL-4. The Cultural and Paleontological Resources Identification Memorandum included the SCCIC records search, literature review, and map review and identified no archaeological resources, as defined by State CEQA Guidelines Section 15064.5, within the project site. An archaeological field survey was not completed because the project site is fully landscaped and hardscaped with no exposed native soils.

As discussed in Section 4.2.2, Environmental Setting, sensitivity for cultural resources consisting of archaeological sites is considered low at and near the surface of the project site due to the project site's past disturbances, which would have resulted in the disturbance of archaeological sites buried at shallow depths. However, this does not preclude the possibility that subsurface archaeological deposits underlie the project site, especially in areas where only minimal ground disturbance have occurred (i.e., the existing surface parking lots or structures with shallow foundations). Additionally, the sensitivity for potential buried prehistoric archaeological sites increases in the undisturbed soils at lower depths. The proposed project would require a maximum depth of 52 feet for the proposed subsurface parking garage increasing the sensitivity for potential buried prehistoric archaeological resources. Therefore, the proposed project would incorporate GPU PEIR MM CUL-6, which would reduce impacts to potential archaeological resources. With the implementation of the GPU PEIR MM CUL-6, impacts to archaeological resources would be less than significant. Impacts resulting from the proposed project would be consistent with the impacts disclosed in the GPU PEIR, which were determined to be less than significant with implementation of mitigation.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be less than significant with mitigation. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

As discussed above, GPU PEIR MM CUL-6 would be implemented to reduce potentially significant impacts related to archaeological resources. This mitigation measure is provided in verbatim below. No new project-specific mitigation measures are necessary or proposed. The Cultural and Paleontological Resources Identification Memorandum prepared for the proposed project satisfies the requirements of GPU PEIR MM CUL-4 for the project. GPU PEIR MM CUL-5 would not be applicable because a Phase I pedestrian survey was not required as the project site is fully landscaped and hardscaped with no exposed native soils, and thus, no potentially significant archaeological resources were identified. GPU PEIR MM CUL-7 would not be required for the project, as the project would implement GPU PEIR MM CUL-6 which requires archaeological monitoring.

GPU PEIR MM CUL-6:

> If the archaeological assessment did not identify archaeological resources but found the area to be highly sensitive for archaeological resources, a qualified archaeologist and a Native American monitor approved by a California Native American Tribe identified by the Native American Heritage Commission as culturally affiliated with the project area shall monitor all ground-disturbing construction and pre-construction activities in areas with previously undisturbed soil of high sensitivity. The archaeologist shall inform all construction personnel

prior to construction activities of the proper procedures in the event of an archaeological discovery. The training shall be held in conjunction with the project's initial on-site safety meeting and shall explain the importance and legal basis for the protection of significant archaeological resources. The Native American monitor shall be invited to participate in this training. In the event that archaeological resources (artifacts or features) are exposed during ground-disturbing activities, construction activities in the immediate vicinity of the discovery shall be halted while the resources are evaluated for significance by an archaeologist who meets the Secretary's Standards. and This will include tribal consultation and coordination with the Native American monitor in the case of a prehistoric archaeological resource or tribal resource. If the discovery proves to be significant, the long-term disposition of any collected materials should be determined in consultation with the affiliated tribe(s), where relevant; this could include curation with a recognized scientific or educational repository, transfer to the tribe, or respectful reinternment in an area designated by the tribe.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of GPU PEIR MM CUL-6, impacts related to Threshold C-2 would be less than significant.

C-3 Would the project disturb any human remains, including those interred outside of dedicated cemeteries? *[GPU PEIR Impact 5.4-3]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to the GPU PEIR, development in accordance with the GPU would largely be limited to infill sites and previously disturbed land within an urban environment. Therefore, potential disturbance of buried human remains is low. Regardless, the GPU PEIR notes that California Health and Safety Code Section 7050.5, State CEQA Guidelines Section 15064.5, and Public Resources Code Section 5097.98 mandate specific processes to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery. GPU PEIR RR CUL-1 states:

> California Health and Safety Code Section 7050.5 requires that if human remains are discovered within the proposed project site, disturbance of the site shall halt and remain halted until the coroner has investigated the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes or has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

The GPU PEIR concluded compliance with RR CUL-1 would ensure that impacts to human remains would be less than significant.

Proposed Project Impact Analysis

Similar to the GPU PEIR, sensitivity for buried human remains would be low at the project site, as the project site does not contain cemeteries or known burial grounds, and past construction activities have disturbed the entire property. However, as the proposed project would require excavations that are anticipated to disturb a large part of the project site at varying depths up to a maximum depth of 52 feet for the subsurface parking garage, there is potential to encounter

previously unknown human remains. In the event that human remains are discovered, the remains would be treated in accordance with California Health and Safety Code Section 7050.5, State CEQA Guidelines Section 15064.5, and Public Resources Code Section 5097.98. Compliance with these regulations would ensure that impacts to human remains would be less than significant. Impacts resulting from the proposed project would be consistent with the impacts disclosed in the GPU PEIR, which were determined to be less than significant.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold C-3 would be less than significant without mitigation. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

The level of significance after mitigation is not applicable, as impacts related to Threshold C-3 would be less than significant and no mitigation measures are required or included.

4.2.6 CUMULATIVE IMPACTS

IMPACT ANALYSIS

Historical Resources

GPU PEIR Impact Summary

According to the GPU PEIR, the extent of analysis of cumulative impacts for cultural resources is contiguous with the City and the sphere of influence boundary, which includes a portion of the Santa Ana River Drainage Channel.

Cumulative impacts to historical resources evaluate whether the cumulative impacts of the proposed project, when considered together with related projects, substantially diminish the number of historical resources within the same or similar context or property type. Impacts to historical resources tend to be site-specific. In the context of historical resources, cumulative impacts would involve projects at historical resources with the same level or type of designation or evaluation, projects affecting other structures located within the same historic district, or projects involving resources that are significant within the same historic context as other resources that are impacted by the proposed project. While the GPU PEIR found project-level impacts to historical resources would be significant and unavoidable, the GPU PEIR did not identify any significant cumulative impacts to historical resources.

Proposed Project Impact Analysis

Implementation of the proposed project would result in no impacts related to historic resources, as none of these resources are located within or adjacent to the project site and the project property is recommended ineligible for listing in the California Register. Per State CEQA Guidelines Section 15130(a)(1), “an EIR should not discuss [cumulative] impacts which do not result in part from the project evaluated in the EIR.” Therefore, the proposed project would have no contribution to cumulative impacts to historic resources. Impacts would not be cumulatively

considerable, and there would be no cumulative impacts to historic resources from the proposed project.

Archaeological Resources

GPU PEIR Impact Summary

Archaeological resources impacts are site specific, but more intensive development can result in cumulative impacts on a regional level and should be considered in addition to individual project impacts on individual sites. As determined by the respective lead agency on a project-by-project basis, Phase I Cultural Resources studies would be required before ground disturbances and demolition activities are permitted to occur. The study would identify resources on the affected project sites that are, or appear to be, eligible for listing on the National or California Register. Such studies would also recommend mitigation measures to protect and preserve archaeological and tribal cultural resources. Therefore, the GPU PEIR concluded buildout under the GPU would result in a potentially significant cumulative impact to archaeological resources. However, with implementation of Mitigation Measures CUL-4 through CUL-7, the GPU PEIR concluded individual and cumulative impacts to archaeological resources would be reduced to less than significant levels.

Proposed Project Impact Analysis

As indicated in Table 4-1: List of Related Projects in Chapter 4, Environmental Impacts Analysis, there are 32 related projects in the vicinity of the project. Of the 32 related projects, 20 are located in the City of Santa Ana, 8 are located in the City of Costa Mesa, and 4 are located in the City of Irvine. As discussed above, as the GPU PEIR found cumulative impacts to archaeological resources would be significant and without mitigation, cumulative impacts for GPU buildout and the related projects would be significant due to the potential to impact unknown archaeological resources. However, depending on the depth of excavation and sensitivity of development sites within the City of Santa Ana, including the related projects located in the City, GPU PEIR mitigation measures would be required for related projects with the potential to cause significant impacts on undiscovered cultural resources. This same analysis and potential application of mitigation measures would apply to related projects in the City of Costa Mesa and City of Irvine. In addition, all related projects (including those located within Costa Mesa and Irvine) would be required to comply with State law regarding archaeological resources to ensure proper identification, treatment, and/or preservation of any sensitive cultural resources. Therefore, the cumulative impacts from the cumulative projects are considered less than significant.

The proposed project could contribute to cumulative impacts related to archaeological resources because ground-disturbing activities during project construction of the proposed subsurface parking garage may result in the discovery of previously unknown archaeological resources. However, the proposed project would incorporate GPU PEIR MM CUL-6, which would reduce the project's impacts to potential archaeological resources to less than significant levels. Therefore, the project's impacts to archaeological resources would not be cumulatively considerable, and cumulative impacts to archaeological resources would be less than significant with implementation of the mitigation measures from the GPU PEIR and compliance with State law.

Disturbance of Human Remains

GPU PEIR Impact Summary

The GPU PEIR did not identify any significant individual or cumulative impacts to human remains.

Proposed Project Impact Analysis

Mandatory compliance with the provisions of California Health and Safety Code Section 7050.5, State CEQA Guidelines Section 15064.5, and Public Resources Code Section 5097.98 would ensure that buildout of the GPU and the related projects would result in less than significant cumulative impacts to human remains. Further, the larger geographic area of the related projects and GPU buildout would still primarily be previously disturbed and urbanized areas.

Similarly, the proposed project would also be required to comply with State law and, therefore, would result in less than significant impacts to human remains. As such, cumulative impacts considering the proposed project, related projects, and buildout under the GPU would be less than significant for human remains. The proposed project's impacts to human remains would not be cumulatively considerable, and cumulative impacts to human remains would be less than significant.

MITIGATION MEASURES

GPU PEIR MM-CUL-6, as provided above, would be implemented by the project to reduce potential cumulative impacts on archaeological resources. Cumulative impacts related to historical resources and human remains would be less than significant without mitigation.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Cumulative impacts related to historical resources and human remains would be less than significant without mitigation. Cumulative impacts related to archaeological resources would be less than significant after implementation of GPU PEIR MM-CUL-6.

4.3 ENERGY

This section evaluates the potential impacts on energy resources resulting from construction and operation of the project, with potential short- and long-term energy consumption impacts. This section presents the regulatory setting; environmental setting; methodology for determining potential impacts; impact analysis; proposed measures to mitigate significant impacts, if necessary; and an analysis of potential cumulative impacts pertaining to energy resources. As the project pursues buildout of part of the City's GPU Land Use Plan, which was analyzed in the GPU PEIR, this section compares the project's impacts with the impacts identified in the GPU PEIR. This section evaluates the project's impacts regarding the avoidance of wasteful and inefficient energy usage. The analysis in this section is based primarily on the information contained in the Air Quality, Greenhouse Gas Emissions, Construction Health Risk Assessment, and Energy Modeling Outputs (Air Quality and GHG Modeling Outputs), included as Appendix B.

4.3.1 REGULATORY FRAMEWORK

FEDERAL

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 was enacted to improve vehicle fuel economy and help reduce dependence on foreign oil. Specifically, the act increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard, which requires fuel producers to use at least 36 billion gallons of biofuel in 2022 and reduces the nation's demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020, an increase in fuel economy standards of 40 percent. On June 21, 2023, the US Environmental Protection Agency (USEPA) announced a final rule to establish biofuel volume requirements and associated percentage standards for cellulosic biofuel, biomass-based diesel, advanced biofuel, and total renewable fuel for the years 2023 to 2025. The act also sets energy efficiency standards for lighting and appliances.

Energy Policy and Conservation Act

The Energy Policy and Conservation Act was enacted in 1975 and established fuel economy standards for new light-duty vehicles sold in the United States. As a result of the act, the National Highway Traffic and Safety Administration (NHTSA) was tasked with establishing and regularly updating vehicle standards.

Corporate Average Fuel Economy Standards

Established by the US Congress in 1975, the Corporate Average Fuel Economy (CAFE) Standards (49 Code of Federal Regulations [CFR] Parts 531 and 533) set fuel economy standards for all new passenger cars and light trucks sold in the United States. The NHTSA and the USEPA jointly administer the CAFE standards, which become more stringent each year.

In August 2016, the USEPA and NHTSA announced the adoption of phase two programs related to the fuel economy and greenhouse gas (GHG) emissions standards for medium- and heavy-duty trucks. The phase two program applied to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards were expected to lower carbon dioxide emissions by approximately 1.1 billion metric tons of carbon dioxide and reduce oil consumption by up to two billion barrels over the lifetime of the vehicles sold under the program. The NHTSA and the USEPA jointly published the "Safer Affordable Fuel-Efficient (SAFE) Vehicles

Rule Part One: One National Program" (SAFE I Rule) in September 2019 and issued the Final SAFE Rule (i.e., SAFE Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks) in April 2020. The SAFE I Rule relaxed federal CAFE vehicle standards and revoked California's authority to set its own vehicle standards. On December 29, 2021, the NHTSA issued the final rule to repeal the SAFE I Rule, effective January 28, 2022, which removes the improper restrictions placed on states and local governments from developing innovative policies to address their specific environmental and public health challenges.[1] The USEPA also issued a decision on March 14, 2022, that rescinded its 2019 withdrawal of California's authority to set its own vehicle standards.[2]

Construction Equipment Fuel Efficiency Standard

The USEPA sets emission standards for construction equipment. The first federal standards (Tier 1) were adopted in 1994 for all off-road engines over 50 horsepower and were phased in by 2000. A new standard was adopted in 1998 that introduced Tier 1 for all equipment below 50 horsepower and established the Tier 2 and Tier 3 standards The EPA finalized a new emissions standard for automobiles and gasoline fuels in 2014 under Tier 3 which will be completely implemented in 2025.The current iteration of emissions standards for construction equipment are the Tier 4 efficiency requirements, which reduce NOx and PM emissions and are contained in 40 CFR Parts 1039, 1065, and 1068 (originally adopted in 69 Federal Register 38958 [June 29, 2004], and updated in 2014 [79 Federal Register 46356]). Emissions requirements for new off-road Tier 4 vehicles were phased in from 2008 to 2015. However, Tier 4 standards do not apply to existing off-road engines that were built before Tier 4 emission standards went into effect.

STATE

Assembly Bill 2076

Pursuant to Assembly Bill 2076 of 2000, the California Energy Commission (CEC) and California Air Resources Board (CARB) prepared and adopted a joint-agency report in 2003, titled Reducing California's Petroleum Dependence. The report included recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita vehicle miles traveled (VMT). One of the performance-based goals of Assembly Bill 2076 is to reduce petroleum demand to 15 percent below 2003 demand. Furthermore, in response to the CEC's 2003 and 2005 Integrated Energy Policy Reports (IEPR), the Governor directed the CEC to take the lead in developing a long-term plan to increase alternative fuel use.

California Energy Commission Integrated Energy Policy Report

In 2002, the California State legislature adopted Senate Bill (SB) 1389, which requires the CEC to develop an IEPR every two years. SB 1389 requires the CEC to conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices, and use these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the State's economy, and protect public health and safety.

The CEC adopted the 2023 IEPR on February 14, 2024. The 2023 IEPR provides the results of the CEC's assessments of a variety of energy issues facing California, many of which will require

[1] Office of the Federal Register, Federal Register, Vol. 86, No. 247, December 29, 2021, available at: https://www.govinfo.gov/content/pkg/FR-2021-12-29/pdf/2021-28115.pdf.

[2] Office of the Federal Register, Federal Register, Vol. 87, No. 49, March 14, 2022, available at: https://www.govinfo.gov/content/pkg/FR-2022-03-14/pdf/2022-05080.pdf.

action if the State is to meet its climate, energy, air quality, and other environmental goals while maintaining reliability and controlling costs. The 2023 IEPR discusses speeding connection of clean resources to the electricity grid, the potential use of clean and renewable hydrogen, and the California Energy Demand Forecast to 2040.

Renewables Portfolio Standards

First established in 2002 under SB 1078, California's Renewables Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent by 2020 and 50 percent by 2030. SB 350, signed October 7, 2015, is the Clean Energy and Pollution Reduction Act of 2015. The objectives of SB 350 are to (1) increase the procurement of electricity from renewable sources from 33 percent to 50 percent by December 31, 2030, and (2) double the energy savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation by December 31, 2030. On September 10, 2018, Governor Jerry Brown signed SB 100, which further increased California's RPS and requires retail sellers and local publicly owned electric utilities to procure eligible renewable electricity for 44 percent of retail sales by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030, and states that CARB should plan for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045.

The California Public Utilities Commission and the CEC jointly implement the RPS program. The California Public Utilities Commission's responsibilities include:

1. Determining annual procurement targets and enforcing compliance;
2. Reviewing and approving each investor-owned utility's renewable energy procurement plan;
3. Reviewing contracts for RPS-eligible energy; and
4. Establishing the standard terms and conditions used in contracts for eligible renewable energy.

California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24, Part 6)

In 1978, the CEC established Title 24, Part 6 of the California Code of Regulations, which are California's energy efficiency standards for residential and nonresidential buildings. Title 24, Part 6, also referred to as the California Energy Code, was codified in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy efficiency standards for residential and nonresidential buildings. California's energy efficiency standards are updated on an approximate three-year cycle. The 2022 California Energy Code became effective on January 1, 2023.

California Green Building Standards (California Code of Regulations Title 24, Part 11)

The California Green Building Standards Code (Title 24, Part 11), commonly referred to as the CALGreen Code, is a Statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development. The CALGreen Code requires new residential and commercial buildings to comply with mandatory measures under five topical areas: planning and design, energy efficiency, water efficiency and conservation. material conservation and resource efficiency, and environmental quality. The CALGreen Code also provides voluntary tiers and measures that local governments may adopt to encourage or require additional measures in the

five green building topics. The most recent update to the CALGreen Code was adopted in 2022 and became effective on January 1, 2023.

LOCAL

City of Santa Ana General Plan Update

The City's GPU includes RRs, goals, and policies related to energy resources and conservation, including the following:

Regulatory Requirement

RR E-1: Construction activities will be conducted in compliance with California Code of Regulations Section 2485, which requires that nonessential idling of construction equipment be restricted to five minutes or less.

RR E-2: At least 65 percent of all nonhazardous construction and demolition waste from nonresidential construction associated with future development in the plan area shall be recycled and/or salvaged for reuse in line with the 2016 California Green Building Standards Code Section 5.408 (California Code of Regulations, Title 24, Part 11).

RR E-3: New buildings implemented as part of the General Plan Update are required to achieve the current California Building Energy and Efficiency Standards (California Code of Regulations, Title 24, Part 6) and California Green Building Standards Code (California Code of Regulations, Title 24, Part 11).

RR E-4: Any appliances associated with development in the Plan Area shall meet the requirements of the 2012 Appliance Efficiency Regulations.

RR E-5: Development under the General Plan Update shall support the goals of the renewables portfolio standard, SB 350, and SB 100 to achieve a tiered increase in the use of renewable energy to 60 percent by 2030, and 100 percent by 2045.

RR E-7: Development under the General Plan Update shall be in compliance with state and local solid waste regulations including AB 939, AB 341, AB 1327, AB 1826, and Section 5.408 of 2016 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11).

Conservation Element

Goal CN-1 Air Quality and Climate: Protect air resources, improve regional and local air quality, and minimize the impacts of climate change.

- *Policy CN-1.2 Climate Action Plan*: Consistency with emission reduction goals highlighted in the Climate Action Plan shall be considered in all major decisions on land use and investments in public infrastructure.
- *Policy CN-1.4 Development Standards*: Support new development that meets or exceeds standards for energy-efficient building design and site planning.
- *Policy CN-1.6 New and Infill Residential Development*: Promote development that is mixed use, pedestrian friendly, transit oriented, and clustered around activity centers.
- *Policy CN-1.7 Housing and Employment Opportunities*: Improve the City's jobs/housing balance ratio by supporting development that provides housing and employment opportunities to enable people to live and work in Santa Ana.

- *Policy CN-1.8 Promote Alternative Transportation*: Promote use of alternate modes of transportation in the City of Santa Ana, including pedestrian, bicycling, public transportation, car sharing programs, and emerging technologies.
- *Policy CN- 1.11 Public Investment in Low- or Zero Emission Vehicles:* Continue to invest in low-emission or zero-emission vehicles to replace the City's gasoline powered vehicle fleet and to transition to available clean fuel sources such as bio-diesel for trucks and heavy equipment.
- *Policy CN-1.12 Sustainable Infrastructure*: Encourage the use of low or zero emission vehicles, bicycles, nonmotorized vehicles, and car-sharing programs by supporting new and existing development that includes sustainable infrastructure and strategies such as vehicle charging stations, drop-off areas for ride-sharing services, secure bicycle parking, and transportation demand management programs.
- *Policy CN- 1.14 Transportation Demand Management:* Require and incentivize projects to incorporate transportation demand management techniques.

Goal CN-3 Energy Resources: Reduce consumption of and reliance on nonrenewable energy, and support the development and use of renewable energy sources.

- *Policy CN-3.3 Development Patterns*: Promote energy-efficient development patterns by clustering mixed use developments and compatible uses adjacent to public transportation.
- *Policy CN-3.4 Site Design*: Encourage site planning and subdivision design that incorporates the use of renewable energy systems.
- *Policy CN-3.5 Landscaping*: Promote and encourage the planting of native and diverse tree species to improve air quality, reduce heat island effect, reduce energy consumption, and contribute to carbon mitigation with special focus in environmental justice areas.
- *Policy CN-3.6 Life Cycle Costs*: Encourage construction and building development practices that use renewable resources and life cycle costing in construction and operating decisions.
- *Policy CN-3.7 Energy Conservation Design And Construction*: Incorporate energy conservation features in the design of new construction and rehabilitation projects.

Land Use Element

Goal LU-2 Land Use Needs: Provide a balance of land uses that meet Santa Ana's diverse needs.

- *Policy LU-2.5 Smart Growth*: Encourage infill mixed-use development at all ranges of affordability to reduce vehicle miles traveled, improve jobs/housing balance, and promote social interaction.
- *Policy LU-2.10 Smart Growth*: Focus high density residential in mixed-use villages, designated planning focus areas, Downtown Santa Ana, and along major travel corridors.

Goal LU-4 Complete Communities: Support a sustainable Santa Ana through improvements to the built environment and a culture of collaboration.

- *Policy LU-4.3 Sustainable Land Use Strategies*: Encourage land uses and strategies that reduce energy and water consumption, waste and noise generation, soil contamination, air quality impacts, and light pollution.

- *Policy LU-4.4 Natural Resource Capture*: Encourage the use of natural processes to capture rainwater runoff, sustainable electric power, and passive climate control.
- *Policy LU-4.5 VMT Reduction*: Concentrate development along high quality transit corridors to reduce vehicle miles traveled (VMT) and transportation-related carbon emissions.

Urban Design Element

Goal UD-1 Physical Character: Improve the physical character and livability of the City to promote a sense of place, positive community image, and quality environment.

- *Policy UD-1.6 Active Transportation Infrastructure*: Support the creation of citywide public street and site amenities that accommodate and promote an active transportation-friendly environment.

Goal UD-2 Sustainable Environment: Improve the built environment through sustainable development that is proportional and aesthetically related to its setting.

- *Policy UD-2.10 Greening the Built Environment*: Promote planting of shade trees and require, where feasible, preservation and site design that uses appropriate tree species to shade parking lots, streets, and other facilities, with the goal of reducing the heat island effect.
- *Policy UD-2.11 Sustainable Practices*: Encourage sustainable development through the use of drought-tolerant landscaping, permeable hardscape surfaces, and energy-efficient building design and construction.

City of Santa Ana Municipal Code

Chapter 8, Article XVI of the Santa Ana Municipal Code, Green Building Standards Code, incorporates the California Green Building Standards Code by reference.

4.3.2 ENVIRONMENTAL SETTING

Energy use is typically quantified using British thermal units (Btu). A Btu is the amount of heat required to raise the temperature of one pound of water by one degree Fahrenheit. The generating capacity of a unit of electricity is expressed in megawatts (MW). Electricity generation may be quantified in megawatt-hours (MWh), kilowatt-hours, or gigawatt-hours. Natural gas generation is expressed in therms, where one therm is equivalent to 100,000 Btu.

STATEWIDE AND REGIONAL ENERGY USAGE

California is one of the lowest per capita energy users in the United States due to its energy efficiency programs and mild climate. In 2021, California consumed 7,359 trillion Btu of energy with a total consumption per capita of 189 million Btu.[3]

Electricity and Natural Gas

Electricity and natural gas are primarily consumed by the built environment for lighting, appliances, heating and cooling systems, and fireplaces, as well as industrial processes and alternative fuel vehicles.

[3] United States Energy Information Administration, 2024, California State Profile and Energy Estimates Consumption & Expenditures, available at: https://www.eia.gov/state/data.php?sid=CA, accessed May 2024.

Most of California's electricity is generated in-State, but California relies on out-of-state imports for nearly 90 percent of its natural gas supply. In 2022, approximately 30 percent of California's electricity was imported from the Northwest and Southwest. Of the 287,220 GWh of total electricity consumed in California in 2022, 203,257 GWh was generated in-State.[4] Approximately 52 percent of the in-State generation was from renewable energy sources, such as wind, solar photovoltaic, geothermal, and biomass.[5]

The electricity and natural gas consumption attributable to Orange County from 2012 to 2022 is shown in Table 4.3-1: Energy Consumption in Orange County 2012-2022. The year 2022 is the most recent year for which data is available.

Table 4.3-1: Energy Consumption in Orange County 2012-2022

Year	Electricity Consumption (in millions of kilowatt hours)	Natural Gas Consumption (in millions of therms)
2012	20,372.57	612.55
2013	20,732.06	636.15
2014	20,732.06	544.76
2015	20,724.59	544.47
2016	20,234.20	569.94
2017	20,127.01	575.51
2018	19,993.46	575.10
2019	19,818.93	623.15
2020	19,691.16	594.60
2021	19,213.66	580.21
2022	20,243.72	572.45

Source: California Energy Commission, Electricity Consumption by County and Gas Consumption by County, available at: http://www.ecdms.energy.ca.gov/, accessed August 2024.

Petroleum

Petroleum fuels are primarily consumed by on-road and off-road equipment, and some industrial processes. Though California's population and economy are expected to grow, gasoline demand is forecasted to decline due to improvements in fuel efficiency and increased light-duty vehicle electrification.

California is one of the top producers of petroleum in the nation, with Statewide drilling operations concentrated primarily in Kern and Los Angeles Counties. A network of crude oil pipelines connects production areas to oil refineries in the Los Angeles area, the San Francisco Bay Area, and the Central Valley. In 2021, the State supplied approximately 4.2 percent of the United States' total onshore and offshore production of crude oil.[6] California oil refineries also process Alaskan and foreign crude oil received at ports in Los Angeles, Long Beach, and the San Francisco Bay Area. Crude oil production in California and Alaska is in decline, and California refineries depend

[4] California Energy Commission, 2022 Total System Electric Generation, available at: https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2022-total-system-electric-generation, accessed February 2024.
[5] Ibid.
[6] United States Energy Information Administration, updated April 18, 2024, California State Energy Profile, available at: https://www.eia.gov/state/print.php?sid=CA, accessed May 2024.

increasingly on imports. Of the total amount of California's oil supply in 2022, 59 percent was supplied by imports, 26 percent by California, and 15 percent by Alaska.[7]

In California, gasoline consumed primarily by light-duty cars, pickup trucks, and sport utility vehicles is the most used transportation fuel. Diesel, the second most-used transportation fuel, is primarily consumed by heavy-duty trucks, delivery vehicles, buses, trains, ships, boats and barges, farm equipment, and heavy-duty construction and military vehicles. Both gasoline and diesel are primarily petroleum-based, and their consumption releases GHG emissions. The transportation sector is the single largest source of GHG emissions in the State and accounts for the largest share of the State's energy consumption. Nearly 40 percent of all inventoried GHG emissions in the State in 2021 were generated by the transportation sector.[8] The State's transportation sector accounts for approximately 67 percent of California's total petroleum consumption in 2021.[9] To reduce Statewide vehicle emissions, California requires that all motorists use California Reformulated Gasoline, which is sourced almost exclusively from in-State refineries.

Alternative Fuels

A variety of alternative fuels are used to reduce petroleum-based fuel demand. Conventional gasoline and diesel may be replaced by alternative fuels, such as hydrogen, biodiesel, and electricity, depending on the capability of the vehicle. Currently, there are 36 biodiesel refueling stations, 107 hydrogen refueling stations, and 93,855 electric vehicle (EV) charging stations (41,384 public EV chargers and 52,471 private chargers) across California.[10,11,12]

LOCAL SERVICE PROVIDERS

Southern California Edison (SCE) provides electricity to the project site. SCE is an independently owned utility that provides electricity to approximately 15 million customers throughout a 50,000-square-mile service area, including 180 incorporated cities in 15 counties.[13] In 2022, the total electricity consumption in the SCE service area was 85,870 GWh, with the greatest consumption occurring in the residential and commercial building sectors, which consumed 31,604 GWh and 30,496 GWh, respectively.[14]

Southern California Gas (SoCalGas) provides natural gas to the project site. SoCalGas provides natural gas to approximately 21.8 million customers throughout a 24,000-square-mile service

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7 California Energy Commission, Annual Oil Supply Sources to California Refineries, https://www.energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market/annual-oil-supply-sources-california, accessed May 2024.

8 California Air Resources Board, Current California GHG Emission Inventory Data, available at: https://ww2.arb.ca.gov/ghg-inventory-data, accessed February 2024.

9 United States Energy Information Administration, 2021, Table F16: Total Petroleum Consumption Estimates, available at: https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_use_pa.html&sid=US&sid=CA, accessed February 2024.

10 United States Department of Energy, Biodiesel Fueling Station Locations, available at: https://afdc.energy.gov/fuels/biodiesel-locations#/find/nearest?fuel=BD, accessed February 2024.

11 California Energy Commission, Hydrogen Refueling Stations in California, available at: https://www.energy.ca.gov/data-reports/energy-almanac/zero-emission-vehicle-and-infrastructure-statistics-collection/hydrogen, accessed February 2024.

12 California Energy Commission, Electric Vehicle Chargers in California, available at: https://www.energy.ca.gov/data-reports/energy-almanac/zero-emission-vehicle-and-infrastructure-statistics-collection/electric, accessed February 2024.

13 Southern California Edison, 2024, About Us: Who We Are: Powering Southern California for 130+ Years, available at: https://www.sce.com/about-us/who-we-are, accessed May 2024.

14 California Energy Commission, 2022 Electricity Consumption by Entity for Southern California Edison Company, available at: https://ecdms.energy.ca.gov/elecbyutil.aspx, accessed May 2024.

area, including parts of the following counties: Riverside, Orange, San Bernardino, Los Angeles, Ventura, Santa Barbara, Kern, Inyo, Tulare, and Mono.[15] In 2022, the total natural gas consumption in the SoCalGas service area was 5,026 million therms, with the greatest consumption occurring in the residential and industrial sectors, which consumed 2,230 million therms and 1,606 million therms, respectively.[16]

EXISTING ENERGY USAGE

Existing uses on the project site, comprising the South Coast Plaza Village commercial center, currently generate a demand for electricity, natural gas, and transportation fuel, as shown in Table 4.3-2: Existing and Projected Energy Consumption. Additionally, Table 4.3-2 showcases both the City and the County's existing baseline energy consumption from 2020 and the projected energy consumption in 2045.

Table 4.3-2: Existing and Projected Energy Consumption

Energy Type	Project Site Existing Conditions Annual Energy Consumption (2024)[a]	County Annual Energy Consumption (2022)[b]	City Annual Energy Consumption (2020)[c]	City Projected Consumption (2045)[c]
Electricity Consumption	3,146 MWh	20,243,722 MWh	1,570,457 MWh	1,831,213 MWh
Natural Gas Consumption	68,913 therms	572,454,744 therms	48,857,914 therms	90,830,320 therms
Operational Automotive Fuel Consumption	1,181,430 gallons	1,432,511,500 gallons	167,898,219 gallons	110,838,019 gallons

Notes:

[a] As modeled in CalEEMod version 2022.1.

[b] Orange County electricity consumption data source: California Energy Commission, Electricity Consumption by County, available at: http://www.ecdms.energy.ca.gov/elecbycounty.aspx, accessed February 2024. Orange County natural gas consumption data source: California Energy Commission, Gas Consumption by County, available at: http://www.ecdms.energy.ca.gov/gasbycounty.aspx, accessed February 2024. Countywide fuel consumption source: California Air Resources Board, EMFAC2021 model, available at: https://ww2.arb.ca.gov/our-work/programs/msei/on-road-emfac, accessed February 2024.

[c] As shown in Table 5.5-4 through 5.5-6 of the GPU PEIR.

Source: Refer to the Air Quality and GHG Modeling Outputs (Appendix B) for assumptions used in this analysis.

4.3.3 THRESHOLDS OF SIGNIFICANCE

The significance thresholds used to evaluate the impacts of the proposed project on energy resources are based on Appendix G of the State CEQA Guidelines. A project would have a significant impact related to energy if it would:

[15] SoCalGas, 2024, Company Profile, available at: https://www.socalgas.com/about-us/company-profile, accessed May 2024.

[16] California Energy Commission, 2022 Gas Consumption by Entity for Southern California Gas Company, available at: https://ecdms.energy.ca.gov/gasbyutil.aspx, accessed May 2024.

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

E-2: Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

4.3.4 METHODOLOGY

The analysis of impacts related to energy use considered the potential future developments on the project site. The estimated construction fuel consumption is based on the proposed project's construction equipment list, timing/phasing, and hours of duration for construction equipment, as well as vendor, hauling, and construction worker trips. The analysis of operational electricity and natural gas usage is based on the CalEEMod modeling results for the proposed project. The proposed project's estimated electricity and natural gas consumption is based primarily on CalEEMod's default settings for Orange County and consumption factors provided by SCE and SoCalGas, the electricity and natural gas providers for the City and the project site. The results of the CalEEMod modeling are included in Appendix B, Air Quality and GHG Modeling Outputs. The amount of operational fuel consumption was estimated using the proposed project's annual VMT as modeled in CalEEMod, and CARB EMFAC2021 website platform, which provides typical fuel efficiency for the County.

Project construction would require temporary energy consumption primarily using fuel for construction equipment, construction worker vehicle trips to and from the project site, and the import and export of earth materials to and from the project site by heavy trucks. Energy consumption during construction, including gasoline and diesel fuel consumption from construction equipment, hauling trips, vendor trips, and worker trips, was estimated using the assumptions and factors from CalEEMod. The proposed project would require energy use in the form of electricity, natural gas, and fuel consumption.

ENERGY SOURCES

The proposed project's annual electricity and natural gas consumption were compared to the annual consumption for the County and City based on the data evaluated in the GPU PEIR and for Orange County in 2022, the latest year consumption data is available. Energy consumption from the existing uses was deducted from the proposed project's consumptions. The CalEEMod modeling included energy consumption data for the proposed project. The annual electricity and natural gas (therms) consumption from CalEEMod were used as the approximate annual energy consumption during project operation.

MOBILE SOURCES

The proposed project's mobile source energy consumptions were estimated by multiplying the proposed project's total VMT calculated from proposed project trip generation rates (refer to Section 4.13, Transportation, of this Supplemental EIR) and CalEEMod defaults values by the fuel consumption rate from EMFAC2021. The assumed vehicle fleet mix provided in CalEEMod for the buildout year of 2045 was used to determine the total annual operational fuel consumption of the proposed project. Under the existing baseline condition, existing uses on the project site generate 8,676 trips per day. Under the buildout condition, the proposed project would generate 11,694 trips per day or a net increase of 3,018 trips per day.

CEQA GUIDELINES APPENDIX F

CEQA Guidelines Appendix F recommends the following topics that the lead agency may consider in the discussion of energy resources and conservation in an EIR and in determining whether a project would result in the inefficient, wasteful, and unnecessary consumption of energy and whether the project would conflict with adopted energy conservation plans:

- **Topic 1**: The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials may be discussed.
- **Topic 2**: The effects of the project on local and regional energy supplies and on requirements for additional capacity.
- **Topic 3**: The effects of the project on peak and base period demands for electricity and other forms of energy.
- **Topic 4**: The degree to which the project complies with existing energy standards.
- **Topic 5**: The effects of the project on energy resources.
- **Topic 6**: The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

4.3.5 PROJECT IMPACTS

E-1: Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? *[GPU PEIR Impact 5.5-1]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

Impact 5.5-1 of the GPU PEIR acknowledged that regulatory compliance would increase building energy efficiency and vehicle fuel efficiency and reduce building energy demand and transportation-related fuel usage. Additionally, the GPU includes policies related to land use and transportation planning and design, energy efficiency, public and active transit, and renewable energy generation that would contribute to minimizing building and transportation-related energy demands overall and demands on nonrenewable sources of energy. Implementation of the proposed policies under the GPU, in conjunction with and complementary to regulatory requirements, would ensure that energy demand associated with buildout of the GPU would not be wasteful, inefficient, or unnecessary. Therefore, the analysis of Impact 5.5-1 of the GPU PEIR concluded that energy impacts associated with buildout of the GPU would be less than significant.

Proposed Project Impact Analysis

Project-Related Sources of Energy Consumption

This analysis focuses on three sources of energy that are relevant to the proposed project: electricity, natural gas, and transportation fuel for vehicle trips and off-road equipment associated with project construction and operations. The proposed project's estimated annual energy consumption and the net increase from existing conditions is summarized in Table 4.3-3: Project Annual Energy Consumption.

Table 4.3-3: Project Annual Energy Consumption

Energy Type	Existing Conditions[a]	Project Annual Energy Consumption[b]	Net Increase from Existing Conditions	City Annual Energy Consumption[c]	Citywide Percentage	Orange County Annual Energy Consumption[d]	Countywide Percentage
Operational Energy Consumption							
Phase 1							
Electricity Consumption (MWh)	3,146	2,937	-209	1,831,212.73	-0.011%	20,243,722	-0.001%
Natural Gas Consumption (therms)	68,913	44,366	-24,547	60,830,320	-0.040%	572,454,744	-0.004%
Phase 1 and Phase 2							
Electricity Consumption (MWh)	3,146	4,953	1,807	1,831,212.73	0.099%	20,243,722	0.009%
Natural Gas Consumption (therms)	68,913	101,344	32,431	60,830,320	0.053%	572,454,744	0.006%
Phase 1 through Phase 3							
Electricity Consumption (MWh)	3,146	5,771	2,626	1,831,212.73	0.143%	20,243,722	0.013%
Natural Gas Consumption (therms)	68,913	121,003	52,090	60,830,320	0.086%	572,454,744	0.009%
Phase 1 through Phase 4							
Electricity Consumption (MWh)	3,146	13,038	9,892	1,831,212.73	0.540%	20,243,722	0.049%
Natural Gas Consumption (therms)	68,913	226,773	157,860	60,830,320	0.260%	572,454,744	0.028%
Full Buildout (Phase 1 through Phase 5)							
Electricity Consumption (MWh)	3,146	14,173	11,027	1,831,212.73	0.602%	20,243,722	0.055%

Table 4.3-3: Project Annual Energy Consumption

Energy Type	Existing Conditions[a]	Project Annual Energy Consumption[b]	Net Increase from Existing Conditions	City Annual Energy Consumption[c]	Citywide Percentage	Orange County Annual Energy Consumption[d]	Countywide Percentage
Natural Gas Consumption (therms)	68,913	256,650	187,738	60,830,320	0.309%	572,454,744	0.033%
Operational Fuel Consumption (gallons)[e]							
Phase 1 Combined Gasoline and Diesel	1,181,430	794,782	-376,648	110,838,019	-0.349%	1,146,020,646 (2030 Projection)	-0.034%
Phase 1 through 2 Combined Gasoline and Diesel	1,181,430	1,118,755	-62,675	110,838,019	-0.057%	1,101,052,740 (2033 Projection)	-0.006%
Phase 1 through 3 Combined Gasoline and Diesel	1,181,430	1,159,465	-21,965	110,838,019	-0.020%	1,067,529,947 (2036 Projection)	-0.002%
Phase 1 through 4 Combined Gasoline and Diesel	1,181,430	1,627,801	446,371	110,838,019	0.403%	1,041,504,375 (2040 Projection)	0.043%
Full Buildout (Phase 1 through Phase 5) Combined Gasoline and Diesel	1,181,430	1,728,224	546,794	110,838,019	0.493%	1,035,560,190 (2045 Projection)	0.053%
Construction Fuel Consumption (gallons)[f]							
Phase 1							
Construction Gasoline	--	271,807	271,807	92,891,225	0.293%	1,088,796,204 (2026 Projection)	0.025%
Construction Diesel	--	29,773	29,773	17,976,794	0.166%	13,230,135 (2026 Projection)	0.225%
Phase 2							
Construction Gasoline	--	202,661	202,661	92,891,225	0.218%	1,013,631,011 (2030 Projection)	0.020%
Construction Diesel	--	19,742	19,742	17,976,794	0.110%	13,466,826	0.147%

Table 4.3-3: Project Annual Energy Consumption

Energy Type	Existing Conditions[a]	Project Annual Energy Consumption[b]	Net Increase from Existing Conditions	City Annual Energy Consumption[c]	Citywide Percentage	Orange County Annual Energy Consumption[d]	Countywide Percentage
						(2030 Projection)	
Phase 3							
Construction Gasoline	--	58,888	58,888	92,891,225	0.063%	972,316,450 (2033 Projection)	0.006%
Construction Diesel	--	15,904	15,904	17,976,794	0.089%	13,548,021 (2033 Projection)	0.117%
Phase 4							
Construction Gasoline	--	277,372	277,372	92,891,225	0.299%	943,405,017 (2036 Projection)	0.029%
Construction Diesel	--	28,576	28,576	17,976,794	0.159%	13,417,074 (2036 Projection)	0.213%
Phase 5							
Construction Gasoline	--	127,487	127,487	92,891,225	0.137%	921,444,231 (2040 Projection)	0.014%
Construction Diesel	--	16,400	16,400	17,976,794	0.091%	13,409,744 (2040 Projection)	0.122%
Construction and Operational Fuel Consumption Overlap (gallons)							
Phase 1 Operation plus Phase 2 Construction	1,181,430	1,017,185	-164,245	110,838,019	-0.148%	1,101,052,740	-0.015%
Phase 1 through 2 Operation plus Phase 3 Construction	1,181,430	1,193,547	12,117	110,838,019	0.011%	1,067,529,947	0.001%
Phase 1 through 3 Operation plus Phase 4 Construction	1,181,430	1,465,413	283,983	110,838,019	0.256%	1,041,504,375	0.027%
Phase 1 through 4 Operation plus Phase 5 Construction	1,181,430	1,771,688	590,258	110,838,019	0.533%	1,035,560,190	0.057%

Table 4.3-3: Project Annual Energy Consumption

Energy Type	Existing Conditions[a]	Project Annual Energy Consumption[b]	Net Increase from Existing Conditions	City Annual Energy Consumption[c]	Citywide Percentage	Orange County Annual Energy Consumption[d]	Countywide Percentage

Notes: MWh = megawatt hour

[a] Refer to Table 4.3-2: Existing Energy Consumption for existing energy consumptions. The existing conditions do not include any construction diesel (off-road) or gasoline (on-road) usages.

[b] As modeled in CalEEMod version 2022.1.

[c] Horizon Year 2045 Forecasted Consumption for the buildout of the City's GPU Land Use Plan for Electricity (GPU PEIR Table 5.5-4), Natural Gas (GPU PEIR Table 5.5-5), and Automotive Fuel (GPU PEIR Table 5.5-6). The project's construction automotive fuel consumption for gasoline and diesel is compared with the City's Existing Year 2045 consumption. The project's operational automotive fuel consumption is compared with the City's Existing Year 2045 consumption (combined gasoline and diesel consumption).

[d] The project's electricity and natural gas consumption is compared to the total consumption in Orange County in 2022, the latest year consumption data are available. Orange County electricity consumption data source: California Energy Commission, Electricity Consumption by County, available at: http://www.ecdms.energy.ca.gov/elecbycounty.aspx, accessed February 2024. Orange County natural gas consumption data source: California Energy Commission, Gas Consumption by County, available at: http://www.ecdms.energy.ca.gov/gasbycounty.aspx, accessed February 2024. Countywide fuel consumption source: California Air Resources Board, EMFAC2021 model, available at: https://ww2.arb.ca.gov/our-work/programs/msei/on-road-emfac, accessed February 2024. Countywide projected fuel consumption is based on the first year of operation for each phase (operational fuel consumption) or first year of construction for each phase (construction fuel consumption).

[e] The project's operational automotive fuel consumption is a combined estimate of gasoline and diesel due to the vehicle mix distribution and trip characteristics assumed within the CalEEMod model.

[f] The construction fuel consumption is compared to the Countywide diesel fuel consumption used for the mining and construction sector.

Source: Refer to the Air Quality and GHG Modeling Outputs (Appendix B) for assumptions used in this analysis.

Construction

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

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

The project-related incremental increase in the use of energy bound in construction materials, such as asphalt, steel, concrete, pipes and manufactured or processed materials (e.g., lumber and gas), would not substantially increase demand for energy compared to overall local and regional demand for construction materials. As discussed, the project would be built in multiple phases. As indicated in Table 4.3-3: Project Annual Energy Consumption, the project would consume the most gasoline during Phase 4 of construction. The project's annual average fuel consumption from gasoline construction vehicle use during Phase 4 would be approximately 277,372 gallons, which would account for 0.299 percent of the City's forecasted consumption of gasoline fuel and 0.029 percent of the County's annual gasoline consumption. Additionally, the project would consume the most diesel during Phase 1 of construction. Also indicated in Table 4.3-3: Project Annual Energy Consumption, the project's annual average fuel consumption from diesel construction equipment use during Phase 1 would be approximately 29,773 gallons, which would account for 0.166 percent of the City's forecasted consumption of diesel fuel and 0.225 percent of the County's annual diesel consumption. It should be noted that the Countywide annual diesel consumption is based solely on diesel consumption for the mining and construction sector while the City's forecasted diesel consumption is based on all diesel consumed within the City. As such, construction would have a nominal effect on the local and regional energy supplies.

It is noted that construction fuel use is temporary and would cease upon completion of construction activities. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or State. Additionally, construction contractors would be required to comply with the provisions of California Code of Regulations Title 13, Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than five minutes and would minimize unnecessary fuel consumption. Construction equipment would be subject to the USEPA Construction Equipment Fuel Efficiency Standard, which would also minimize inefficient, wasteful, or unnecessary fuel consumption. Furthermore, per applicable regulatory requirements, such as the 2022 CALGreen Code, the project would comply with construction waste management practices to divert a minimum of 65 percent of construction debris. Therefore, construction fuel consumption would not be any more inefficient, wasteful, or unnecessary than other similar development projects. As such, a less than significant impact would occur.

Operation

Transportation Energy Demand

Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic and Safety Administration is responsible for establishing additional vehicle standards and for revising existing standards. Compliance with Federal fuel economy standards is not determined for each individual vehicle model. Rather, compliance is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the United States. As indicated in Table 4.3-3: Project Annual Energy Consumption, the project's operational automotive transportation at full buildout (Phase 1 through Phase 5) is estimated to consume approximately 1,728,224 gallons of fuel per year, or a net increase of 546,794 gallons from existing conditions. This net increase would account for 0.493 percent of the City and 0.053 percent of the County's forecasted annual consumption of fuel for the buildout year of 2045. As such, the proposed project would account for a nominal percentage of the forecasted annual operational automotive fuel consumption for both the City and County and, thus, would have a nominal effect on the local and regional energy supplies. The project does not propose any unusual features that would result in excessive long-term operational fuel consumption

Additionally, the project would include surface parking lots and various parking structures. The proposed surface parking lots and parking structures would be required to comply with the most current and applicable version of the Title 24 standards pertaining to EV capable spaces and parking stalls with EV chargers. The project would also include features such as short- and long-term bicycle parking spaces which would encourage alternative modes of transportation. Additionally, the project site is surrounded by bus stops that are serviced by Orange County Transportation Agency (OCTA). Thus, the project would encourage and support the use of EVs and alternative modes of transportation, thus reducing petroleum fuel consumption.

Therefore, fuel consumption associated with vehicle trips generated by the project would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region. A less than significant impact would occur.

Building Energy Demand

The CEC developed 2024 to 2040 forecasts for energy consumption and peak demand in support of the 2023 IEPR for each of the major electricity and natural gas planning areas and the State based on the economic and demographic growth projections. CEC forecasted baseline electricity consumption grows at a rate of about 1.7 percent annually through 2040.[17] The natural gas consumption grows at a rate of about 0.2 percent annually through 2035.[18,19] As shown in Table 4.3-3: Project Annual Energy Consumption, the project's operational energy consumption at full buildout (Phase 1 through Phase 5) would result in an annual electricity and natural gas consumption of 14,173 MWh and 256,650 therms, respectively. This would represent a net increase of 11,027 MWh and 187,738 therms from existing conditions. This net increase would account for approximately 0.602 percent in electricity consumption and approximately 0.309 percent in natural gas consumption of the City's consumption in for the buildout year of 2045. Table 4.3-3: Project Annual Energy Consumption also shows that the project would account for approximately 0.055 percent in electricity consumption and approximately 0.033 percent in natural

[17] California Energy Commission, 2023, Integrated Energy Policy Report, available at: https://efiling.energy.ca.gov/GetDocument.aspx?tn=254463.

[18] Ibid.

[19] The gas forecast is updated every two years, in odd years.

gas consumption of the current Countywide usage. As such, energy consumption for the project would be well below CEC's forecasts, the City's forecasted consumption for the proposed buildout of the General Plan in 2045, and the current Countywide usage. Therefore, the project would be consistent with the CEC's energy consumption forecasts and would not require additional energy capacity or supplies. The project would also consume energy during the same time periods as other surrounding residential and commercial developments. As a result, the project would not result in unique or more intensive peak or base period electricity demand.

The project would be required to comply with the most current and applicable version of the Title 24 Building Energy Efficiency Standards (commonly known as Title 24), which provide minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. The project would also comply with the CALGreen Code pertaining to the installation of EV charging stations. Compliance with the most current and applicable Title 24 standards significantly reduces energy usage.

Furthermore, the electricity provider, SCE, is subject to California's RPS. The RPS requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 60 percent of total procurement by 2030 and 100 percent of total procurement by 2045. Renewable energy is generally defined as energy that comes from resources which are naturally replenished within a human timescale such as sunlight, wind, tides, waves, and geothermal heat. The increase in reliance of such energy resources further ensures that new development projects will not result in the waste of the finite energy resources. In compliance with Title 24, including the CALGreen Code, the project would install high efficiency lighting and energy efficient appliances. The project would also install photovoltaic panels on at least 30 percent of the roof area. As a result, the project would ensure energy consumption to be kept to a minimum through these components.

Based on the analysis above, the project would not cause wasteful, inefficient, and unnecessary consumption of building energy during project operation, or preempt future energy development or future energy conservation. Overall, the proposed project would account for a nominal energy consumption percentage of the City and County's annual energy consumption. Therefore, the project would not result in a significant increase in construction and operational energy consumption. As such, impacts resulting from the proposed project would be less than significant and would be the same as the impacts disclosed in the GPU PEIR, which were also determined to be less than significant.

For the reasons aforementioned, the proposed project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be less than significant as related to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold E-1 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold E-1 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

E-2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency? *[GPU PEIR Impact 5.5-2]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

The analysis of Impact 5.5-2 of the GPU PEIR concluded that implementation of the GPU would not conflict with or obstruct implementation of California's RPS program, or interfere with the goals and measures of the City's Climate Action Plan, and, thus, the impact would be less than significant.

Proposed Project Impact Analysis

The project would comply with the State and regional plans for renewable energy and energy efficiency. State and regional plans for renewable energy and energy efficiency include the CEC's IEPR and Title 24 standards, including the CALGreen Code. The project would meet the most current and latest Title 24 standards for energy efficiency and incorporate all applicable energy efficiency measures (solar panels, high efficiency lighting, energy efficient appliances, etc.). Compliance with Title 24 standards, including the CALGreen Code, would ensure the project's consistency with the IEPR building energy efficiency recommendations, which would, in turn, ensure project conformance with the State's energy reduction goals. The project would also comply with applicable energy goals and policies in the GPU, as discussed in Table 4.3-4.

Table 4.3-4: Consistency with GPU Goals and Policies Related to Energy

Goals and Policies	Would the Project Conflict?
Conservation Element	
Goal CN-1 Air Quality and Climate: Protect air resources, improve regional and local air quality, and minimize the impacts of climate change.	
Policy CN-1.2 Climate Action Plan: Consistency with emission reduction goals highlighted in the Climate Action Plan shall be considered in all major decisions on land use and investments in public infrastructure.	**No Conflict.** The proposed project would be consistent with the goals listed in the Climate Action Plan; refer to Table 4.5-7: Consistency with the Santa Ana Climate Action Plan in Section 4.5, Greenhouse Gas Emissions. As such, the proposed project would not conflict with this policy.
Policy CN-1.4 Development Standards: Support new development that meets or exceeds standards for energy-efficient building design and site planning.	**No Conflict.** The proposed project would meet or exceed the requirements of the most current and applicable Title 24 standards and California Building Code, including, but not limited to, those related to energy conservation, use of renewable energy, and the installation of EV charging stations. As such, the proposed project would not conflict with this policy.
Policy CN-1.6 New and Infill Residential Development: Promote development that is mixed use, pedestrian friendly, transit oriented, and clustered around activity centers.	**No Conflict.** The proposed project would construct a mixed-use development that includes residential and commercial uses. The project proposes up to 1,583 residential dwelling units, commercial uses (restaurants, groceries, brewery, and other retail uses), and office space. The project site is located near the South Coast Plaza, which is an activity center, and other commercial uses that would encourage pedestrian activities. Additionally, two bus stops served

Table 4.3-4: Consistency with GPU Goals and Policies Related to Energy

Goals and Policies	Would the Project Conflict?
	by the OCTA are located on or immediately adjacent to the project site. As such, the proposed project would not conflict with this policy.
Policy CN-1.7 Housing and Employment Opportunities: Improve the City's jobs/housing balance ratio by supporting development that provides housing and employment opportunities to enable people to live and work in Santa Ana.	**No Conflict.** The proposed project would involve the construction of a mixed-use development that would include up to 1,583 residential dwelling units and commercial uses that would introduce employment opportunities in the City. Accordingly, the proposed project would contribute to the improvement of the City's jobs/housing balance, enabling people to live and work in the City. As such, the proposed project would not conflict with this policy.
Policy CN-1.8 Promote Alternative Transportation: Promote use of alternate modes of transportation in the City of Santa Ana, including pedestrian, bicycling, public transportation, car sharing programs, and emerging technologies.	**No Conflict.** The proposed project would provide short- and long-term bicycle parking and would install EV charging stations in accordance with the requirements of the most current and applicable Title 24 standards and California Building Code. In addition, the proposed project is located within a Pedestrian Opportunity Zone and would develop sidewalks, pedestrian pathways, and a fitness loop to encourage pedestrian mobility. As previously discussed, two bus stops served by OCTA are located on or immediately adjacent to the project site, which would encourage the use of alternate modes of transportation. As such, the proposed project would not conflict with this policy.
Policy CN- 1.11 Public Investment in Low- or Zero Emission Vehicles: Continue to invest in low-emission or zero-emission vehicles to replace the City's gasoline powered vehicle fleet and to transition to available clean fuel sources such as bio-diesel for trucks and heavy equipment.	**No Conflict. T**his policy focuses on the City's effort in converting their own City-owned gasoline fleet into vehicles that consume clean energy. However, the proposed project would also help incentivize this shift by providing EV charging stations. As such, the proposed project would not conflict with this policy.
Policy CN-1.12 Sustainable Infrastructure: Encourage the use of low or zero emission vehicles, bicycles, nonmotorized vehicles, and car-sharing programs by supporting new and existing development that includes sustainable infrastructure and strategies such as vehicle charging stations, drop-off areas for ride-sharing services, secure bicycle parking, and transportation demand management programs.	**No Conflict.** The proposed project would incorporate features that would encourage the use of sustainable forms of transportation. As previously discussed, the project would provide short- and long-term bicycle parking spaces and EV charging stations. As such, the proposed project would not conflict with this policy.
Policy CN- 1.14 Transportation Demand Management: Require and incentivize projects to incorporate transportation demand management techniques.	**No Conflict.** Please refer to Policy CN-3.3. As discussed, the proposed project would include a variety of features that would promote existing transportation systems (e.g., proximity to public transit), including infrastructure for alternative modes of transportation (e.g., biking), and would be in walking distance of retail-serving establishments. Inclusion of these features would help reduce overall travel demand and help reduce VMT. As such, the proposed project would not conflict with this policy.
Goal CN-3 Energy Resources: Reduce consumption of and reliance on nonrenewable energy, and support the development and use of renewable energy sources.	
Policy CN-3.3 Development Patterns: Promote energy-efficient development patterns by clustering mixed use	**No Conflict.** The project site is located within a TPA (i.e., within 0.5-mile of existing or planned major transit stops). The project site is located in the GPU's designated Transit Opportunity Corridor. The OCTA provides public transit service to and from the project

Table 4.3-4: Consistency with GPU Goals and Policies Related to Energy

Goals and Policies	Would the Project Conflict?
developments and compatible uses adjacent to public transportation.	area, and operates one bus stop along the project site frontage on Sunflower Avenue, and another stop along South Plaza Drive, which bisects the site. Multiple bus stops are available within the vicinity of the project site that offer consistent headway to destinations throughout Orange County and beyond, including the following routes: Local Routes 55, 57, 76, 86; Community Route 150; and Bravo Limited Stop Service 553. Bus stops would continue to be provided but may be relocated along the project frontages as a part of the project in collaboration with OCTA. Therefore, the project's mixed use development would be clustered adjacent to public transportation, and the project would not conflict with this policy.
Policy CN-3.4 Site Design: Encourage site planning and subdivision design that incorporates the use of renewable energy systems.	**No Conflict.** The proposed project would provide on-site energy generation through the use of solar photovoltaic panels. As such, the proposed project would incorporate the use of a renewable energy system and would not conflict with this policy.
Policy CN-3.5 Landscaping: Promote and encourage the planting of native and diverse tree species to improve air quality, reduce heat island effect, reduce energy consumption, and contribute to carbon mitigation with special focus in environmental justice areas.	**No Conflict.** The proposed project would construct open spaces (i.e., pocket parks, gathering areas, and fitness loop) and incorporate immersive garden landscaping throughout the project site. Specifically, the project would have numerous planting zones that would use a variety of native trees, drought-tolerant plants, and shrubs. As such, the project would not conflict with this policy.
Policy CN-3.6 Life Cycle Costs: Encourage construction and building development practices that use renewable resources and life cycle costing in construction and operating decisions.	**No Conflict.** The project would support and promote environmental sustainability by complying with regulatory requirements and LEED-certified or equivalent green building standards. These features may include, but would not be limited to environmentally-friendly materials, such as locally produced and recycled building construction materials; and passive shading for indoor spaces, increased natural daylighting and ventilation; and window technologies such as low-emission coatings and insulated daylighting panels. The project's structures would also incorporate the use of Energy Star–labeled products and appliances; use of LED lighting or other energy-efficient lighting technologies to reduce electricity use, and fenestration designed for solar orientation as well as the installation of solar photovoltaic panels on the buildings to generate energy on-site. As such, the proposed project would not conflict with this policy.
Policy CN-3.7 Energy Conservation Design And Construction: Incorporate energy conservation features in the design of new construction and rehabilitation projects.	**No Conflict.** The proposed project would meet or exceed the requirements of the most current and applicable Title 24 standards and California Building Code, including, but not limited to, those related to energy conservation, use of renewable energy, and the installation of EV charging stations. As such, the proposed project would not conflict with this policy.
Land Use Element	
Goal LU-2 Land Use Needs: Provide a balance of land uses that meet Santa Ana's diverse needs.	
Policy LU-2.5 Smart Growth: Encourage infill mixed-use development at all ranges of affordability to reduce vehicle miles traveled, improve jobs/housing balance, and promote social interaction.	**No Conflict.** The project would introduce residential uses to the site where none currently exist. Specifically, the project would provide 1,583 residential units, consisting of a mix of studio, one-bedroom, two-bedroom, and three-bedroom units with housing affordable to a range of households at various income levels. The project would result in an increase of approximately 215,951 square feet of commercial uses on-site when compared to existing uses. The

Table 4.3-4: Consistency with GPU Goals and Policies Related to Energy

Goals and Policies	Would the Project Conflict?
	proposed residential units and open space would be located in close proximity to the retail and office uses on-site and the vicinity, which would support reduction of VMT and promote opportunities for social interaction. Therefore, the project would not conflict with this policy.
Policy LU-2.10 Smart Growth: Focus high density residential in mixed-use villages, designated planning focus areas, Downtown Santa Ana, and along major travel corridors.	**No Conflict.** The project site is located in the City's South Bristol Focus Area. The proposed project would include 1,583 residential units on the 17.2-acre site, which would equate to an overall residential density of approximately 92 dwelling units per acre. Additionally, the project site is located within a SCAG designated Transit Priority Area and High Quality Transit Area. Therefore, the project would not conflict with this policy.
Goal LU-4 Complete Communities: Support a sustainable Santa Ana through improvements to the built environment and a culture of collaboration.	
Policy LU-4.3 Sustainable Land Use Strategies: Encourage land uses and strategies that reduce energy and water consumption, waste and noise generation, soil contamination, air quality impacts, and light pollution.	**No Conflict.** As discussed throughout this Supplemental EIR, the proposed project would result in less than significant impacts related to energy, water consumption, waste, soil contamination, and light pollution, and less than significant impacts with mitigation related to air quality and noise generation. Therefore, the project would not conflict with this policy.
Policy LU-4.4 Natural Resource Capture: Encourage the use of natural processes to capture rainwater runoff, sustainable electric power, and passive climate control.	**No Conflict.** The proposed project would incorporate surface bio-filtration planters, green roofs, and localized capture and reuse throughout the project development. The proposed project would provide on-site energy generation through the use of solar photovoltaic panels. The project would also further support and promote environmental sustainability by complying with regulatory requirements and LEED-certified equivalent green building standards. These features may include but would not be limited to passive shading for indoor spaces, increased natural daylighting and ventilation; and window technologies such as low-emission coatings and insulated daylighting panels. Therefore, the project would not conflict with this policy.
Policy LU-4.5 VMT Reduction: Concentrate development along high quality transit corridors to reduce vehicle miles traveled (VMT) and transportation-related carbon emissions.	**No Conflict.** The project site has two bus stops served by the OCTA. There is one bus stop along Sunflower Avenue, approximately 10 feet south, and another bus stop along Plaza Drive located on-site. Based on the City's Traffic Impact Study Guidelines, the proposed project is located within a Transit Priority Area, defined as an area that is located less than 0.5 mile from an existing High Quality Transit Area. In addition, the proposed project is located within a Pedestrian Opportunity Zone and would develop sidewalks, pedestrian pathways, and a fitness loop to encourage pedestrian mobility to reduce overall VMT. Moreover, the proposed project would be located in an urbanized area and within walking and biking distance of existing residential and commercial uses and transit to support first/last mile strategies and reduce reliance on solo car trips to contribute to the reduction in VMT. Therefore, the project would not conflict with this policy.
Urban Design Element	
Goal UD-1 Physical Character: Improve the physical character and livability of the City to promote a sense of place, positive community image, and quality environment.	
Policy UD-1.6 Active Transportation Infrastructure: Support the creation of citywide public street and site amenities that	**No Conflict.** The project would promote bicycle use by providing 28 bicycle spaces and adding a Class I Bike Path along Bear Street and a Class II Bike Lane or Class IV Cycle Track along Sunflower

Table 4.3-4: Consistency with GPU Goals and Policies Related to Energy

Goals and Policies	Would the Project Conflict?
accommodate and promote an active transportation-friendly environment.	Avenue along the edges of the project site. In addition, the project would enhance pedestrian activity on and around the project site by including retail and restaurant uses on the ground level, which would serve to activate the streets and common spaces and promote walkability for the community. As such, the proposed site design would facilitate more active transportation and pedestrian connections throughout the project site. Therefore, the project would not conflict with this policy.
Goal UD-2 Sustainable Environment: Improve the built environment through sustainable development that is proportional and aesthetically related to its setting.	
Policy UD-2.10 Greening the Built Environment: Promote planting of shade trees and require, where feasible, preservation and site design that uses appropriate tree species to shade parking lots, streets, and other facilities, with the goal of reducing the heat island effect.	**No Conflict.** The project would include trees for shade and landscaping between the parcels and along pathways, internal streets, Bear Street, South Plaza Drive, and Sunflower Avenue. Moreover, the project would reduce the amount of surface parking/paving on the site. Therefore, the project would not conflict with this policy.

Source: City of Santa Ana, 2022, General Plan, available at: https://www.santa-ana.org/documents/general-plan-april-2022/.

As such, impacts resulting from the proposed project related to consistency with adopted energy conservation plans or state/local energy standards for renewable energy or energy efficiency would be less than significant and would be the same as the impacts disclosed in the GPU PEIR, which were also determined to be less than significant.

For the reasons aforementioned, the proposed project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be less than significant as related to consistency with adopted energy conservation plans or state/local energy standards for renewable energy or energy efficiency. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold E-2 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold E-2 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

4.3.6 CUMULATIVE IMPACTS

IMPACT ANALYSIS

Impact Due to Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources

GPU PEIR Impact Summary

According to the GPU PEIR, the extent of analysis of cumulative impacts for energy is the City and the sphere of influence boundary, which includes a portion of the Santa Ana River Drainage Channel. The GPU PEIR did not identify any significant cumulative impacts related to the consumption of energy resources.

Proposed Project Impact Analysis

The geographic context for the cumulative analysis of electricity consumption is SCE's service area, and the geographic context for the cumulative analysis of natural gas consumption is SoCalGas' service area. While the geographic context for transportation-related energy use is more difficult to define, it is meaningful to consider the project in the context of countywide consumption. Growth within these areas is anticipated to increase the demand for electricity, natural gas, and transportation energy, as well as the need for energy infrastructure, such as new or expanded energy facilities.

Buildout of the GPU, the 32 related projects identified in Table 4-1: List of Related Projects, in Chapter 4, Environmental Analysis, and additional forecasted growth, which would occur in the SCE and SoCalGas service areas, would increase electricity and natural gas consumption. Therefore, the GPU buildout and related projects would cumulatively increase the need for electrical and natural gas supplies and infrastructure capacity, potentially including new or expanded electrical and natural gas facilities. However, as concluded in the GPU PEIR, implementation of the policies in the GPU, in conjunction with and complementary to the regulatory requirements identified above, would ensure that energy demand associated with growth under the GPU would not be inefficient, wasteful, or unnecessary and that energy impacts associated with the implementation and operation of land uses accommodated under the GPU would be less than significant.

Although future developments within the SCE and SoCalGas service areas would result in the use of renewable and nonrenewable electricity and natural gas resources during construction and operation, which could limit future availability, the sizes and types of uses proposed by the GPU buildout and 32 related projects would use such resources on a relatively small scale. Additionally, future development projects building out the GPU and the related projects would be expected to incorporate energy conservation features in compliance with applicable regulations, such as the Title 24 standards, which include the CALGreen Code. Furthermore, SCE and SoCalGas implement long-range planning methods that would account for regional and local growth expectations for their respective service areas. As such, the potential cumulative impacts related to the wasteful, inefficient, and unnecessary use of electricity and natural gas from the GPU buildout and the related projects would be less than significant.

As discussed above, the proposed project's electricity demand would not significantly increase SCE's total electricity demand for its service population, and the proposed project's natural gas demand would be nominal compared to SoCalGas' total natural gas demand for its service population. Therefore, the proposed project's contribution to cumulative impacts would not be cumulatively considerable, and as such, cumulative impacts would be less than significant.

Transportation Fuel

Buildout of the GPU, the related projects, and additional forecasted growth would cumulatively increase the demand for transportation-related fuel in the State and region. However, according to the GPU PEIR, regulatory compliance (e.g., RPS and CAFE standards) would increase vehicle fuel efficiency and reduce transportation-related fuel usage and that the policies in the GPU related to land use and transportation planning and design, energy efficiency, public and active transit, and renewable energy generation would contribute to minimizing transportation-related energy demands overall and demands on nonrenewable sources of energy. In addition, as concluded in the GPU PEIR, implementation of the policies in the GPU, in conjunction with and complementary to the regulatory requirements identified above, would ensure that energy demand associated with growth under the GPU would not be inefficient, wasteful, or unnecessary and that energy impacts associated with the implementation and operation of land uses accommodated under the GPU would be less than significant.

Further, the related projects located outside of the City and sphere of influence boundary would be expected to reduce VMT by encouraging the use of alternative modes of transportation and other design features that promote VMT reductions. In addition, improving fuel efficiency standards would further improve the efficiency of use of transportation fuels from related projects. As such, potential cumulative impacts related to the wasteful, inefficient, and unnecessary use of transportation fuel from buildout of the GPU and the related projects would be less than significant.

As discussed above in Section 4.3.5 Project Impacts, proposed project transportation fuel usage would represent a small percentage of total fuel consumption within Orange County. Therefore, the proposed project's contribution to cumulative impacts related to the wasteful, inefficient, and unnecessary use of transportation fuel would not be cumulatively considerable, and as such, cumulative impacts would be less than significant.

Conflict with Applicable Plans

GPU PEIR Impact Summary

According to the GPU PEIR, the extent of analysis of cumulative impacts for energy is the City and the sphere of influence boundary, which includes a portion of the Santa Ana River Drainage Channel. The GPU PEIR did not identify any significant cumulative impacts related to conflict with state or local plans for renewable energy or energy efficiency.

Proposed Project Impact Analysis

Cumulative impacts for the GPU buildout and 32 related projects identified in Table 4-1: List of Related Projects, in Chapter 4, Environmental Analysis, would not be significant as the GPU buildout and each related project would be required to comply with the Title 24 standards, including the CALGreen Code, and with applicable energy goals and policies established by each of the cities to reduce energy demand and ensure that no new development would conflict with or obstruct implementation of State or local plans for renewable energy or energy efficiency. Therefore, the potential cumulative impacts associated with energy from GPU buildout and the related projects would be less than significant.

As discussed above in Section 4.3.5 Project Impacts, the proposed project would not cause any new or additional significant cumulative impacts related to consistency with adopted energy conservation plans or state/local energy standards for renewable energy or energy efficiency. As

such, the proposed projects contribution to cumulative impacts related to conflicting with state or local plans for renewable energy or energy efficiency would not be cumulatively considerable, and therefore, cumulative impacts would be less than significant.

MITIGATION MEASURES

Cumulative impacts related to energy would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Cumulative impacts related to energy were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

4.4 GEOLOGY AND SOILS

This section evaluates the potential impacts to geology, soils, and paleontological resources that would result from implementation of the proposed project. This section presents the regulatory setting, environmental setting, methodology for determining potential impacts, impact analysis, proposed measures to mitigate significant impacts, and an analysis of potential cumulative impacts pertaining to geology, soils, and paleontological resources. As the project pursues buildout of part of the City's GPU Land Use Plan, which was analyzed in the GPU PEIR, this section compares the project's impacts with the impacts identified in the GPU PEIR. This section is based, in part, on the Updated Geotechnical Feasibility Study (Geotechnical Feasibility Study) prepared by NMG Geotechnical, Inc. (December 30, 2022), which is included as Appendix D, and the Cultural and Paleontological Resources Identification Memorandum, prepared by Michael Baker International, Inc. (August 28, 2024), which is included as Appendix C.

4.4.1 REGULATORY FRAMEWORK

FEDERAL

Earthquake Hazards Reduction Act of 1977

The Earthquake Hazards Reduction Act established a long-term earthquake risk reduction program for the United States which focuses on creating effective measures to reduce earthquake hazards; promoting the adoption of earthquake hazard reduction activities by federal, state, and local governments; improving the public's knowledge of earthquakes by increasing the overall understanding of the effects of earthquake on humans and their surroundings; and developing and maintaining systems for advancing these causes. The National Earthquake Hazards Reduction Program designates the Federal Emergency Management Agency as the lead agency of the program with planning, coordinating, and reporting responsibilities.

Paleontological Resources Preservation Act of 2002

The Paleontological Resources Preservation Act was enacted to codify the generally accepted practice of limiting the collection of vertebrate fossils and other rare and scientifically significant fossils to qualified researchers. These researchers must obtain a permit from the appropriate state or federal agency and agree to donate any materials recovered to recognized public institutions, where they will remain accessible to the public and to other researchers.

STATE

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The act requires the State Geologist to delineate earthquake fault zones along faults that are "sufficiently active" and "well defined." The act requires that proposed developments incorporating tracts of four or more dwelling units investigate the potential for ground rupture within designated Alquist-Priolo zones. These zones serve as an official notification of the probability of ground rupture during potential earthquake events. Where such zones are designated, no building may be constructed on the line of fault, and before any construction is allowed, a geologic study must be conducted to determine the location of all active fault lines within the zone. In general, local agencies are required to regulate development proposed within such designated fault zones.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act addresses the effects of strong ground shaking, liquefaction, landslides, and other ground failures due to seismic events. Under the Seismic Hazards Mapping Act, the State Geologist is required to delineate "seismic hazard zones." Cities and counties must regulate certain development projects within these zones until the geologic and soil conditions of their project sites have been investigated and appropriate mitigation measures, if any, have been incorporated into development plans. The State Mining and Geology Board provides additional regulations and policies to assist municipalities in preparing the safety element of their general plans and to encourage the adaptation of land use management policies and regulations to reduce and mitigate seismic hazards to protect public health and safety. Under Public Resources Code (PRC) Section 2697, cities and counties must require, prior to the approval of a project located in a seismic hazard zone, submission of a geotechnical report defining and delineating any seismic hazards.

California Building Code

The California Building Code (CBC), codified in Title 24 of the California Code of Regulations (CCR), Part 2, was promulgated to safeguard public health, safety, and general welfare by establishing minimum standards related to structural strength, means of egress facilities, and general stability of buildings. The purpose of the CBC is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures within its jurisdiction. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under State law, all building standards must be centralized in Title 24, or those standards are not enforceable. The provisions of the CBC apply to the construction, alteration, movement, replacement, location, and demolition of every building, structure, or appurtenance connected or attached to such buildings or structures throughout California.

The 2022 edition of the CBC is based on the 2021 International Building Code published by the International Code Council. The code is updated triennially, and the 2022 edition of the CBC was published by the California Building Standards Commission on July 1, 2022, effective January 1, 2023. Every three years, the State adopts new codes (known collectively as the California Building Standards Code) to establish uniform standards for the construction and maintenance of buildings, electrical systems, plumbing systems, mechanical systems, and fire and life safety systems. Sections 17922, 17958 and 18941.5 of the California Health and Safety Code require that the latest edition of the California Building Standards Code apply to local construction 180 days after publication.

California Public Resources Code Section 5097.5

California PRC Section 5097.5 defines and details the unauthorized disturbance or removal of archaeological, paleontological, or historical resources located on public lands which is considered a misdemeanor violation:

> "A person shall not knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands."

California Construction General Permit

The State of California adopted a Statewide National Pollutant Discharge Elimination System (NPDES) Permit for General Construction Activity (Construction General Permit) on September 2, 2009 (Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ, 2012-0006-DWQ, and 2022-0057-DWQ). Dischargers whose projects disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity. Construction activity subject to this permit includes clearing, grading, and ground disturbance, (e.g., stockpiling or excavation) but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The main objectives of the Construction General Permit are to:

- Reduce erosion;
- Minimize or eliminate sediment in stormwater discharges;
- Prevent materials used at a construction site from contacting stormwater;
- Implement a sampling and analysis program;
- Eliminate unauthorized non-stormwater discharges from construction sites;
- Implement appropriate measures to reduce potential impacts on waterways both during and after construction of projects; and
- Establish maintenance commitments on post-construction pollution control measures.

California requires all construction activities disturbing more than one acre of land to develop and implement Stormwater Pollution Prevention Plans (SWPPP). The SWPPP documents the selection and implementation of best management practices (BMPs) for a specific construction project, delegating owners with stormwater quality management responsibilities. A construction site subject to the Construction General Permit must prepare and implement a SWPPP that meets the requirements of the Construction General Permit.

LOCAL

City of Santa Ana General Plan Update

The City's GPU includes regulatory requirements (RR), goals, and policies related to geology and soils. The following RRs and Historic Preservation Element, Safety Element, Conservation Element, Land Use Element, and Public Service Element goals and policies are applicable to the proposed project:

Regulatory Requirements

RR G-1: Every public agency enforcing building regulations must adopt the provisions of the California Building Code (CBC), which is Title 24, Part 2 of the California Code of Regulations. The most recent version is the 2019 CBC (effective January 1, 2020).[1] The CBC is updated every three years and provides minimum standards to protect property and public safety by regulating the design and construction of excavations, foundations, building frames, retaining walls, and other building elements to mitigate the effects of seismic shaking and adverse soil conditions. The CBC also contains provisions for earthquake safety based on factors including occupancy type, the types of soil and rock on-site, and the strength of ground shaking with specified probability of occurring at a site.

[1] The latest version of the California Building Code is the 2022 California Building Code, effective as of Jan 1, 2023.

RR G-2: Santa Ana Municipal Code, Chapter 8, Buildings and Structures. These codes address grading standards, excavation, and fills. This also includes compliance with regulations for unreinforced masonry structures in accordance with "Unreinforced Masonry Law," found in California Government Code §§ 8875 et seq. The City of Santa Ana Building Official may place additional requirements upon the construction of infrastructure, buildings, and other improvements based on the findings from plan check, soils testing, and geotechnical investigations.

RR G-3: Santa Ana Municipal Code Section 39-51 requires that all buildings or structures within the city that require plumbing fixtures must be connected to a public sewer.

Historic Preservation Element

Goal HP-1 Historic Areas and Resources: Preserve and enhance Santa Ana's historic areas and resources to maintain a unique sense of place.

- *Policy HP-1.4 Historic Areas and Resources*: Support land use plans and development proposals that actively protect historic and cultural resources. Preserve tribal, archaeological, and paleontological resources for their cultural importance to communities as well as their research and educational potential.

Safety Element

Goal S-1 Flood Safety: Protect life and minimize property damage, social and economic disruptions caused by flood and inundation hazards.

- *Policy S-1.6 Alternative Flood Control Methods*: Explore and encourage natural flood control infrastructure and techniques that create new open areas to capture storm water, recharge aquifers, prevent flooding, and that expand recreation opportunities.
- *Policy S-1.7 Surface Water Infiltration*: Encourage site drainage features that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events on private and public developments.
- *Policy S-3.1 Hazard Identification*: Explore opportunities to identify and encourage the upgrade of structures and facilities that are at risk from seismic hazards.

Goal S-3 Geologic and Seismic Hazards: Provide a safe environment for all Santa Ana residents and workers while minimizing risk of injury, loss of life, property damage, and social and economic impacts caused by geologic and seismic hazards.

- *Policy S-3.2 Seismic and Geotechnical Standards*: Ensure that all new development abides by the current City and state seismic and geotechnical requirements and that projects located in areas with potential for geologic or seismic hazards prepare a hazards study.
- *Policy S-3.3 Key Public Facilities and Systems*: Coordinate with relevant utility service providers to ensure that major utility systems remains resilient in the event of a major earthquake and are seismically upgraded.
- *Policy S-3.4 Multiagency Education Campaign*: Develop cooperative partnerships and strengthen communication among public agencies, residents, nonprofit organizations, and businesses to promote sharing of educational information regarding seismic and geologic hazards and safety.

Conservation Element

Goal CN-2 Natural Resources: Preserve and enhance Santa Ana's natural and environmental resources while maintaining a balance between recreation, habitat restoration, and scenic resources.

- *Policy CN-2.1 Native Wildlife Habitat Protection*: Protect and enhance natural vegetation in parks and open spaces for wildlife habitat, erosion control, and to serve as noise and scenic buffers.
- *Policy CN-2.3 Resource Management*: Efficiently manage soil and mineral resource operations to eliminate significant nuisances, hazards, or adverse environmental effects on neighboring land uses.

Land Use Element

Goal LU-4 Complete Communities: Support a sustainable Santa Ana through improvements to the built environment and a culture of collaboration.

- *Policy LU-4.4 Natural Resource Capture*: Encourage the use of natural processes to capture rainwater runoff, sustainable electric power, and passive climate control.

Public Services Element

Goal PS-2 Public Safety: Preserve a safe and secure environment for all people and property.

- *Policy PS-2.2 Code Compliance*: Require all development to comply with the provisions of the most recently adopted fire and building codes and maintain an ongoing fire inspection program to reduce fire hazards.

City of Santa Ana Municipal Code

Chapter 8, Article 2, Division 1 of the City's Municipal Code amends and adopts the CBC. This chapter regulates all building and construction projects within the City and grading activities including drainage and erosion control. The chapter implements minimum standards for building design and construction, including standards for seismic safety, excavation, foundations, retaining walls and site demolition.

Chapter 18, Article 4, Section 18-156, Control of Urban Runoff, states that all new development and significant redevelopment within the City shall be undertaken in accordance with the County Drainage Area Management Plan, including but not limited to the development project guidance; and any conditions and requirements established by City agencies related to the reduction or elimination of pollutants in storm water runoff from the project site. Prior to the issuance by the City of a grading permit, building permit or nonresidential plumbing permit for any new development or significant redevelopment, City agencies are required to review the project plans and impose terms, conditions, and requirements for the project. The owner of a new development or significant redevelopment project shall implement and adhere to the terms, conditions and requirements of the new development or significant redevelopment project.

4.4.2 ENVIRONMENTAL SETTING

REGIONAL GEOLOGIC SETTING

The City of Santa Ana is located within the Peninsular Range Province of California, in the southeast portion of the Orange County Basin on the U.S. Geological Survey 7.5-minute Newport

Beach Quadrangle.[2] The Peninsular Range Province extends approximately 900 miles from the Transverse Ranges and the Los Angeles Basin located north of the City to the southern tip of Baja California. In general, the province consists of a complex of blocks, oriented northwest-southeast and separated by similarly trending faults.

Geologic units underlying the project area have been mapped as Holocene alluvial deposits and Holocene to late Pleistocene age young axial-channel deposits. Deposits from the entire Holocene epoch (less than 11,700 years ago until present day) can contain remains of animals and plants; however, only those older than human history from the middle to early Holocene (older than about 5,000 radiocarbon years) are considered paleontological resources.[3] Holocene-age deposits may overlie older alluvium of Pleistocene age at unknown but potentially shallow depths. Pleistocene-age alluvial deposits, which may be considered scientifically important or significant, are also potentially present in the project area and have yielded scientifically important fossils elsewhere in the region, including horses, camels, reptiles, birds, marine mammals, and fish at various depths below ground surface (bgs).

The Santa Ana Mountains are located to the northeast and east of the City and the San Joaquin Hills are located to the southeast. The Santa Ana River flows to the Pacific Ocean traversing the City on the west side. Santa Ana is generally flat with a gentle slope toward the southwest.

SOIL CONDITIONS

Based on the U.S. Department of Agriculture's 1978 soil mapping, the near-surface native soils at the project site consist of the Omni Clay soil. Omni Clay soil has a high shrink/swell potential, is highly corrosive to metals, and moderately corrosive to concrete. This soil is also categorized as having a low permeability.[4] There are potentially 2 to 3 feet of imported sandy soils overlying the native deposits at the project site that were placed during previous grading activities in the early 1970s.

Prior soil studies conducted at the project site have included borings to 51 feet bgs throughout the site and Cone Penetration Testing (CPT) was performed in 2021 to 120 feet bgs.[5,6,7] The alluvium below the project site consists primarily of clay and silt in the upper 15 to 20 feet, with local thin lenses of sandy alluvium. Below 20 feet, there is considerably more sand and sandy silt layers, with local thin layers of clay. The alluvium below a depth of 50 feet in the cone penetrometers is similar to interlayered sand and silt with some clay but is generally much denser with layers of very dense stiff soil.

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2 California Division of Mines and Geology, 1980, Classification and Mapping of Quaternary Sedimentary Deposits for Purposes of Seismic Zonation, South Coastal Los Angeles Basin, Orange County California, Annual Technical Report, F.Y. Sept. 19, 1979 - Sept. 18, 1980, Open File Report 81-966 O.F. R 80-19L.A. Plate No. 1, Map Nos. 1 through 4, Authored by Davis, J. F, available at: https://pubs.usgs.gov/publication/ofr81966.

3 Society of Vertebrate Paleontology, 2010, Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources, available at: https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines.pdf.

4 United States Department of Agriculture, 1978, Soil Conservation Service and Forest Service, Soil Survey of Orange County and Western Part of Riverside County, California, available at: https://archive.org/details/usda-general-soil-map-soil-survey-of-orange-county-and-western-part-of-riverside-county-ca.

5 NMG, Geotechnical, Inc., 2000, Geotechnical Report of Observation and Testing During Demolition and Backfill of Drilled Caissons, Former Planet Hollywood Site, South Coast Plaza Village, City of Santa Ana, California, Project No. 00075-01.

6 Giles Engineering Associate, Inc., 2001, Geotechnical Engineering Exploration and Analysis, Proposed Morton's Steakhouse, Sunflower Avenue and Plaza Drive, [Santa Ana], California, Project No. 2G-012001.

7 Cone Penetration Testing is used to identify subsurface conditions in the upper 100 feet of the subsurface by pushing a "cone" into the ground.

GROUNDWATER CONDITIONS

The project site contains eight groundwater observation wells that were installed in 2021.[8] There are four sets of two groundwater wells, consisting of one shallow well (14 to 15.5 feet deep) and one deep well (25.5 to 31.5 feet deep). During drilling, groundwater was encountered in the deeper wells that penetrated the upper clay confining layer. The shallow wells generally encountered little to no free groundwater during drilling. The groundwater wells were monitored during 2020-2022. The groundwater levels remain fairly constant with little fluctuation over time, with generally less than one (1) foot of fluctuation.

SEISMICITY, FAULTING, AND SEISMIC HAZARDS

There are no known active faults located within or adjacent to the project site, and the project site is not located within an Alquist-Priolo Fault Rupture Hazard Zone. The closest major active faults to the project site are the San Joaquin Hills Blind Thrust Fault, located approximately 2.5 miles south, and the Newport-Inglewood Fault, located approximately 5.5 miles southwest of the project site.

The project site is not located within a zone of earthquake induced landslide as mapped by the State; however, the project site is mapped as having potentially liquefiable soil.[9] Tsunamis and seiches are not considered secondary seismic hazards at the project site due to the elevation and distance from the coast or other open water body.

Liquefaction

A primary seismic hazard at the project site is potential ground deformation due to liquefaction, as the site is mapped as having potentially liquefiable soil.[10] Liquefaction occurs when loosely packed, water saturated sediments at or near the ground surface lose their strength in response to strong or extended periods of seismic shaking. Liquefied sediments lose strength, in turn, causing the failure of adjacent structures. The liquefaction analysis conducted for the project site indicates the project site has low to moderate liquefaction potential. The majority of sand layers with significant liquefaction potential are located between 20 and 45 feet bgs. The risk of bearing capacity loss and ground disturbance is low due to the clay layer that caps the project site and the depth to the liquefaction prone layers.

PALEONTOLOGICAL RESOURCES

A paleontology collection records search for locality and specimen data within the project area was completed by the Natural History Museum of Los Angeles County (NHMLAC) on January 22, 2023. The records search identified six known fossil localities in the NHMLAC's collection in the project vicinity. Pleistocene-age alluvial deposits have yielded scientifically important fossils such as identifiable freshwater invertebrate fossils, including clams and Bryozoa, within 1 mile of the project site.

Additionally, a supplemental investigation was completed within 3 miles of the project area using the University of California Museum of Paleontology Locality Search, San Diego Natural History Museum Collection Database, and the Paleobiology Database. The supplemental investigation

[8] Giles Engineering Associate, Inc., 2001, Geotechnical Engineering Exploration and Analysis, Proposed Morton's Steakhouse, Sunflower Avenue and Plaza Drive, [Santa Ana], California, Project No. 2G-012001.

[9] California Division of Mines and Geology (CDMG), 1997, Seismic Hazard Zone Report for the Anaheim and Newport Beach 7.5-Minute Quadrangles, Orange County, California, Seismic Hazard Zone Report 03, available at: https://www.conservation.ca.gov/cgs/documents/publications/shzr/SHZR_003_Anaheim_Newport_Beach.pdf.

[10] Ibid.

resulted in the identification of three additional fossil localities within 3 miles of the project area. Refer to the Cultural and Paleontological Resources Identification Memorandum (Appendix C) for the complete list of the fossil localities from the records search and supplemental investigation.

SENSITIVITY ANALYSIS

The Holocene-age deposits in the project area have low sensitivity for paleontological resources, but Pleistocene-age alluvial sediments may underlie these younger sediments at a relatively shallow depth. The NHMLAC records search results indicate that potentially fossil-bearing units may underlie the project area, since Pleistocene-age deposits outside of the project area have contained fossils. Therefore, the project site is considered to have paleontological sensitivity increasing with depth.

4.4.3 THRESHOLDS OF SIGNIFICANCE

The significance thresholds used to evaluate the impacts of the proposed project related to geology and soils are based on Appendix G of the State CEQA Guidelines. A project would have a significant impact related to geology and soils if it would:

G-1 ***Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:***

- ***i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial 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.***

G-2 ***Result in substantial soil erosion or the loss of topsoil.***

G-3 ***Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.***

G-4 ***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.***

G-5 ***Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.***

G-6 ***Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.***

4.4.4 METHODOLOGY

GEOLOGY AND SOILS

The evaluation of impacts related to geology and soils was primarily based on the Geotechnical Feasibility Study prepared for the proposed project (Appendix D). The Geotechnical Feasibility Study included a review of the City of Santa Ana public archive search and acquired geotechnical reports, published and unpublished data/maps, and available online historic aerial photographs and topographic maps. The Geotechnical Feasibility Study also included site reconnaissance to observe existing conditions, a meeting with South Coast Plaza representatives, and the CPT. The Geotechnical Feasibility Study completed a site seismicity analysis, liquefaction and settlement analyses with the CPT data, and a conceptual foundation alternative analysis.

PALEONTOLOGICAL RESOURCES

The evaluation of impacts related to paleontological resources was based on the Cultural and Paleontological Resources Identification Memorandum (Appendix C) prepared for the proposed project. The memorandum included a review of geological units, results from the NHMLA records search and supplemental paleontological databases, related background reports and literature for the project area, and review of the project's Geotechnical Feasibility Study.

4.4.5 PROJECT IMPACTS

G-1(i) ***Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*** *[GPU PEIR Impact 5.6-1]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to the GPU PEIR, no active surface faults are mapped and zoned under the Alquist-Priolo Earthquake Fault Zoning Act in Santa Ana. Therefore, the GPU PEIR concluded the City would not experience surface rupture in the event of an earthquake and impacts would be less than significant.

Proposed Project Impact Analysis

According to the Geotechnical Feasibility Study prepared for the proposed project and consistent with the GPU PEIR, no known active faults are located within or adjacent to the project site. The project site is also not located within an Alquist-Priolo Fault Rupture Hazard Zone. Therefore, the potential for primary ground rupture of a known earthquake fault is considered very low at the project site. Impacts related to rupture of a known earthquake fault would be less than significant. Moreover, earthquake fault zones are existing environmental conditions and the proposed project would not exacerbate the risk of earthquake faults. Therefore, impacts resulting from the proposed project would be consistent with the impacts disclosed in the GPU PEIR, which were determined to be less than significant.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to surface rupture disclosed in the GPU PEIR,

which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold G-1(i) would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold G-1(i) were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

G-1(ii) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: strong seismic ground shaking? *[GPU PEIR Impact 5.6-1]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to the GPU PEIR, the Newport-Inglewood Fault southwest of the City is potentially capable of producing the most intense ground accelerations. The seismic design of buildings within the City is governed by the requirements of the most recent CBC, which has been accepted as the basic design standard in Santa Ana. All structures that would be constructed in accordance with the GPU would be designed to meet or exceed current design standards as found in the latest CBC. Therefore, new structures are expected to remain standing, but may suffer damage requiring closure and replacement. The GPU PEIR concluded the CBC design measures would reduce the exposure of people and structures to harm from strong ground shaking hazards such that there would not be a significant impact.

Proposed Project Impact Analysis

According to the Geotechnical Feasibility Study prepared for the proposed project, one of the primary seismic hazards at the project site is ground shaking due the project site's proximity to the San Joaquin Hills Blind Thrust Fault and the Newport-Inglewood Fault. The Geotechnical Feasibility Study states that the San Joaquin Hills Blind Thrust Fault with a moment magnitude of 7.15 is considered the controlling fault for this site. Consistent with the GPU PEIR, the proposed project would be designed and constructed to meet or exceed current design standards as found in the latest CBC and other applicable local, state, and federal codes to minimize impacts related to strong seismic ground shaking. Additionally, the City requires the Project-specific engineering design recommendations from a design-level geotechnical investigation be incorporated into grading plans and building specifications as a condition of construction permit approval. The recommendations would be anticipated to be similar to the measures identified in the Geotechnical Feasibility Study, which includes the following for building construction:

- Heavier structures (towers and multi-level parking structures) will require either deep pile foundations or mat slab foundations with ground improvement, such as rammed aggregate piers or stone columns.
- Conventional foundations, mat slabs, or shallower piles shall be considered for intermediate structures with ground improvements.

- Lighter structures shall be considered for support on stiff shallow foundations.

These recommendations have been incorporated into project-specific mitigation measures (MMs) G-1 and G-2. As part of the design-level geotechnical investigation, the project may also require additional seismic analysis based on the 2022 CBC and the proposed building periods/specifics once more specific design information is available in order to provide the necessary parameters for structural design. With adherence to the latest CBC requirements and project-specific MMs G-1 and G-2 to conduct a design-level geotechnical investigation prepared in compliance with the current CBC requirements and to the satisfaction of the City's Building and Safety Division, impacts related to strong seismic ground shaking would be less than significant. Moreover, seismic ground shaking is an existing environmental condition that the proposed project would not exacerbate. With the implementation of project-specific MMs G-1 and G-2 as well as implementation of existing regulations, impacts resulting from the proposed project would be consistent with the impacts disclosed in the GPU PEIR, which were determined to be less than significant.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to seismic ground shaking disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Project-Specific Mitigation Measures

As discussed above, project-specific MMs G-1 and G-2 would be implemented to reduce potentially significant impacts related to seismic ground shaking.

MM G-1: Incorporation of and Compliance with a Design-Level Geotechnical Investigation

A final design-level geotechnical investigation that complies with all applicable state and local code requirements shall be prepared for each project structure by a qualified, California-licensed geotechnical engineer consistent with the California Building Code and City of Santa Ana requirements applicable at the time of issuance of grading or construction permits. The final design-level geotechnical investigation shall include recommendations related to site grading and earthwork, fill materials, compaction, foundations, dewatering, and other structural elements. The report recommendations shall be included in construction specifications and permits, approved by the City's Building and Safety Division, and confirmed through on-site inspections.

MM G-2: Implementation of Geotechnical Recommendations

Project plans, grading specifications, and construction permitting shall incorporate site-specific earthwork and ground improvement requirements related to seismic ground shaking, liquefaction, settlement, collapse, subsidence, and expansive soils consistent with the California Building Code and City of Santa Ana requirements applicable at the time of issuance of grading or construction permits as stated in the final design-level geotechnical investigation and approved by the City's Building and Safety Division. This shall include recommendations related to site grading and earthwork, fill materials, compaction, foundations, dewatering, and other structural elements.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of project-specific MMs G-1 and G-2, impacts related to Threshold G-1(ii) would be less than significant.

G-1(iii) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: seismic-related ground failure, including liquefaction? *[GPU PEIR Impact 5.6-1]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to the GPU PEIR, most of the City is within an area susceptible to liquefaction. All structures constructed following the GPU would be designed in accordance with current seismic design standards as found in the CBC. Design measures would be implemented according to the most recent CBC, which would reduce the impact of liquefaction and seismic settlement, including, but not limited to, ground improvement techniques such as in-situ densification, load transfer to underlying non-liquefiable bearing layers, and over-excavation and recompaction with engineered fill. Therefore, the GPU PEIR concluded implementation of these design measures would reduce the potential exposure of people and structures to the hazard from liquefaction and seismic settlement such that impacts would be less than significant.

Proposed Project Impact Analysis

As discussed in Section 4.4.2 Environmental Setting, potential ground deformation due to liquefaction is also a primary seismic hazard at the project site, based on California Regional Geologic Maps indicating the project site as having potentially liquefiable soil. However, the liquefaction analysis performed for the proposed project indicated that the project site has low to moderate liquefaction potential due to the clay layer that caps the site and the depth to the liquefaction prone layers, which are located between 20 and 45 feet bgs. As discussed in Threshold G-1(ii), project-specific MMs G-1 and G-2 would implement the final design-level geotechnical investigation for the proposed project which would include proper foundation design measures (i.e., deep pile foundations, mat slab foundations, conventional foundations, shallow foundations, etc.) based on 2022 CBC standards to be reviewed and approved by the City's Building and Safety Division as part of the construction permit approval process. With adherence to the latest CBC requirements and project-specific MMs G-1 and G-2, impacts related to liquefaction would be less than significant. Moreover, liquefaction is an existing environmental condition that the proposed project would not exacerbate. With the implementation of project-specific MMs G-1 and G-2 as well as implementation of existing regulations, impacts resulting from the proposed project would be consistent with the impacts disclosed in the GPU PEIR, which were determined to be less than significant.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to seismic ground failure disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

As discussed above, project-specific MMs G-1 and G-2 would be implemented to reduce potential significant impacts related to liquefaction.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of project-specific MMs G-1 and G-2, impacts related to Threshold G-1(iii) would be less than significant.

G-1(iv) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: landslides? *[GPU PEIR Impact 5.6-1]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to the GPU PEIR, there are no substantial hazards in Santa Ana with respect to slope stability. As discussed in Section 4.4.2 Environmental Setting, the City is generally flat with a gentle slope toward the southwest. The GPU PEIR states that the slope failure and landslides are not a major hazard in Santa Ana because the entire city is nearly flat. Therefore, the GPU PEIR concluded impacts related to slope stability would be less than significant.

Proposed Project Impact Analysis

Similar to the GPU PEIR, the Geotechnical Feasibility Study states the project site is not located within a zone of earthquake induced landslide. Additionally, similar to the overall City topography, the project site is relatively flat; thus, there would be no hazards related to slope stability. Therefore, impacts related to landslides would be less than significant. Impacts resulting from the proposed project would be consistent with the impacts disclosed in the GPU PEIR, which were determined to be less than significant.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to landslides disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold G-1(iv) would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold G-1(iv) were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

G-2 Would the project result in substantial soil erosion or the loss of topsoil? *[GPU PEIR Impact 5.6-2]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to the GPU PEIR, the use of a SWPPP, which specifies BMPs for temporary erosion controls, reduces the potential for erosion during construction period activities. Standard erosion control measures would be implemented as part of a SWPPP for proposed projects within the

City to minimize the risk of erosion or sedimentation during construction. The SWPPP must include an erosion control plan that prescribes measures such as phasing grading, limiting areas of disturbance, designating restricted-entry zones, diverting runoff from disturbed areas, protective measures for sensitive areas, outlet protection, and provisions for revegetation or mulching. Therefore, the GPU PEIR concluded that mandatory compliance with existing regulations, including the California Construction General Permit (which requires the preparation and submittal of a SWPPP) and completion of a soil engineering evaluation, would result in less than significant impacts.

Proposed Project Impact Analysis

The proposed project's Geotechnical Feasibility Study reviewed prior studies at the project site which included borings and cone penetrometers. The prior studies and CPT revealed that the alluvium below the project site consists primarily of clay and silt, and sand and sandy silt layers at greater depths. Construction of the proposed project would result in ground surface disturbance during excavation and grading that could create the potential for erosion of such soils to occur. However, during construction, transport of sediments by stormwater runoff and wind would be prevented through BMPs, such as implementation of Rule 403 dust control measures required by the South Coast Air Quality Management District and a SWPPP for construction activities in compliance with the latest NPDES California Construction General Permit requirements for stormwater discharges. In addition, the proposed project would include open space and an immersive garden landscaping concept. The proposed landscaping throughout the project site would plant vegetation such as shrubs and trees, which would help to stabilize soil and further prevent the erosion of loose topsoil. The proposed addition of open space and expanded landscaping would result in less impervious area compared to existing conditions, reducing the potential for runoff and soil erosion. Therefore, with implementation of a project-specific SWPPP, associated BMPs during construction, and installation of landscaping and open space to stabilize soils throughout the project site, the proposed project would not result in substantial soil erosion or the loss of topsoil and impacts would be less than significant. Impacts resulting from the proposed project would be consistent with the impacts disclosed in the GPU PEIR, which were determined to be less than significant.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to erosion disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold G-2 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold G-2 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

G-3 Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? *[GPU PEIR Impact 5.6-2]*

IMPACT ANALYSIS

As discussed in Threshold G-1(iv), slope failure and landslides are not a major hazard in Santa Ana because the entire city is nearly flat. Lateral spreading is a type of liquefaction-induced ground failure on mildly sloping ground; refer to Threshold G-1(iii) for impacts related to liquefaction. As discussed in Thresholds G-1(iv) and G-1(iii), the project would not result in new significant impacts and no substantial increase in the severity of previously identified impacts related to landslides or liquefaction, including lateral spreading, as disclosed in the GPU PEIR.

Settlement and Collapse

GPU PEIR Impact Summary

According to the GPU PEIR, the risk of settlement and collapse are likely to exist in areas with alluvial soils. Areas of large settlement can damage, or in extreme cases, destroy structures. The presence of compressible soils in Santa Ana represents a hazard to structures and people. The CBC design code has been adopted by the City and requires that structures be designed to mitigate compressible soils. Methods that could be used to reduce the impact of compressible soils include in-situ densification, transferring the load to underlying non-compressible layers with piles, and over-excavation of compressible soil, and recompaction with engineered fill. Therefore, the GPU PEIR concluded that implementation of these design measures, or a combination of them, would reduce the impact of compressible soils to less than significant.

Proposed Project Impact Analysis

The project site is underlain by moderately compressible soils as well as soil with low to moderate potential for seismically induced settlements. The proposed project's Geotechnical Feasibility Study modeled a preliminary settlement analysis for a conceptual 25-story residential tower using the CPT data to estimate consolidation characteristics of the on-site soils. The analysis resulted in 1 to 2 inches of total settlement below a mat slab foundation. As discussed in Threshold G-1(ii), as part of the construction permit approval process by the City's Building and Safety Division, the project would be required to implement project-specific MMs G-1 and G-2 to prepare a detailed geotechnical investigation in support of the final design plans and apply the recommendations which include measures related to foundation specifications for heavier, intermediate, and lighter structures, such as use of pile or pier foundations, mat/raft foundations, stone columns, injection grouting, or deep soil mixing, to reduce impacts related to settlement and collapse. Therefore, with adherence to project-specific MMs G-1 and G-2, the project would result in less than significant impacts related to settlement and collapse. Moreover, settlement and collapse are existing environmental conditions that the proposed project would not exacerbate. Impacts resulting from the proposed project would be slightly greater than the impacts disclosed in the GPU PEIR, which were determined to be less than significant with implementation of existing regulations. However, with the implementation of project-specific MMs G-1 and G2, impacts resulting from the proposed project would be consistent with the impacts described in the GPU PEIR.

Subsidence

GPU PEIR Impact Summary

Subsidence is the lowering of surface elevation due to the extraction of subsurface fluids, such as groundwater. When groundwater is extracted from aquifers at a rate that exceeds the rate of replenishment, overdraft occurs, which can lead to subsidence.

The GPU PEIR states that subsidence has been historically documented in Santa Ana and is considered a potential hazard. However, historical subsidence in Santa Ana does not show a pattern of widespread, irreversible, and permanent lowering of the ground surface. The probability of subsidence impacts is generally low in the majority of Santa Ana, with the most susceptible areas along the margins of the Santa Ana River and Santiago Creek. Groundwater storage by the Orange County Water District (OCWD) and statutory commitments to sustainable groundwater management practices reduce the potential for future land subsidence, and ongoing surveying of the ground surface by the OCWD provides a way to verify that its efforts in preventing subsidence are effective. Therefore, the GPU PEIR concluded with adherence to the statutorily required sustainable groundwater management practices of OCWD, impacts related to subsidence would be less than significant.

Proposed Project Impact Analysis

According to the proposed project's Geotechnical Feasibility Study, the project site has relatively shallow groundwater conditions. Direct groundwater extraction would not occur as part of the proposed project. However, excavations deeper than approximately 10 to 15 feet are likely to encounter groundwater seepage, and excavations deeper than 15 feet may encounter artesian conditions. Therefore, local dewatering and inflow control for excavations deeper than approximately 15 to 20 feet (which may vary across the project site) would be required for construction activities. Such measures may include gravel filled cut-off trenches around excavations for the subterranean parking structures with sump pumps. For larger and deeper excavations, some type of in-situ cutoff walls, such as sheet piling, jet grouting, or mixed in-place slurry or soil cement walls, may be implemented if pumping and discharge of large volumes of groundwater to local storm drain or sewer system is infeasible. Additionally, construction dewatering discharges would comply with the requirements of the Santa Ana RWQCB's Groundwater Discharge Permit, which requires sampling and treatment measures as necessary to ensure groundwater discharges would not contain high levels of pollutants. These recommendations have been incorporated into project-specific MMs G-1 and G-2 to prepare a detailed geotechnical investigation in support of the final design plans. As such, the project's impacts related to subsidence would be less than significant. Moreover, subsidence is an existing environmental condition that the proposed project would not exacerbate. With the implementation of project-specific MMs G-1 and G-2 as well as implementation of existing regulations, impacts resulting from the proposed project would be consistent with the impacts disclosed in the GPU PEIR, which were determined to be less than significant.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to settlement, collapse, and subsidence disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

As discussed above, project-specific MMs G-1 and G-2 would be implemented to reduce potential significant impacts related to settlement, collapse, and subsidence.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of project-specific MMs G-1 and G-2, impacts related to Threshold G-3 would be less than significant.

G-4 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? *[GPU PEIR Impact 5.6-2]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

Expansive soils are clay-based soils that tend to expand (increase in volume) as they absorb water and shrink (lessen in volume) as water is drawn away. If soils consist of expansive clays, foundation movement and/or damage can occur.

According to the GPU PEIR, based on the presence of alluvial materials in the City, there is some potential for expansive soils throughout Santa Ana. The CBC design code has been adopted by the City and requires that structures be designed to mitigate expansive soils. Methods that could be used to reduce the impact of expansive soils include drainage control devices to limit water infiltration near foundations, over-excavation, and recompaction of engineered fill, or support of the foundation with piles. The GPU PEIR found that these project design measures, or a combination of them, would reduce the impact of expansive soils to a less than significant level.

Proposed Project Impact Analysis

As discussed in Section 4.4.2 Environmental Setting, the project site contains alluvium which consists primarily of clay and silt in the upper 15 to 20 feet, with local thin lenses of sandy alluvium. Below 20 feet, there is considerably more sand and sandy silt layers, with local thin layers of clay. As clay-based soils are susceptible to expansion, the project would adhere to the CBC requirements and would implement project-specific MMs G-1 and G-2 which include preparation of a final design-level geotechnical investigation. The geotechnical investigation would also include recommendations or measures for preventing expansive soils such as the use of extra stiff post-tensioned slabs-on-grade, ribbed (waffle-type) slabs-on-grade, or the removal of three to five feet of the clay soil and replacement with granular soils having very low expansion potential for lightly loaded structures. For large areas, lime treatment of the upper 4 feet of soil may be used to reduce the potential of expansive soil. With implementation of the CBC requirements and project-specific MMs G-1 and G-2 to be implemented as part of the conditions of the construction permit, the project's impacts related to expansive soils would be less than significant. Moreover, expansive soil is an existing environmental condition that the proposed project would not exacerbate. Impacts resulting from the proposed project would be slightly greater than the impacts disclosed in the GPU PEIR, which were determined to be less than significant with implementation of existing regulations. However, with the implementation of project-specific MMs G-1 and G2, impacts resulting from the proposed project would be consistent with the impacts described in the GPU PEIR.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to expansive soils disclosed in the GPU PEIR,

which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures. The project-specific mitigation measures would be implemented pursuant to the CBC requirements for review and approval by the City's Building and Safety Division as part of the construction permit approval process and are not required due to the project proposing new or more severe impacts to expansive soils.

MITIGATION MEASURES

As discussed above, project-specific MMs G-1 and G-2 would be implemented to reduce potential significant impacts related to expansive soils.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of project-specific MMs G-1 and G-2, impacts related to Threshold G-4 would be less than significant.

G-5 Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? *[GPU PEIR Impact 5.6-3]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to the GPU PEIR, the City of Santa Ana does not allow for the installation of septic tanks. Therefore, the GPU PEIR concluded impacts would be less than significant.

Proposed Project Impact Analysis

Similar to the GPU PEIR, the proposed project would not use septic tanks or alternative wastewater disposal systems. Sanitary wastewater at the project site is handled through connections to the existing sanitary sewer system. No impact would occur. Impacts resulting from the proposed project would be less than the impacts disclosed in the GPU PEIR, which were determined to be less than significant.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to septic tanks or alternative wastewater disposal systems disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

No impacts related to Threshold G-5 would occur. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

The level of significance after mitigation is not applicable, as no impacts related to Threshold G-5 would occur and no mitigation measures are required or included.

G-6 Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? *[GPU PEIR Impact 5.6-4]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to the GPU PEIR, long-term implementation of the GPU land use plan could allow development (e.g., infill development, redevelopment, and revitalization/restoration), including grading, of known and unknown sensitive areas for paleontological resources. Grading and construction activities of undeveloped areas or redevelopment that require more intensive soil excavation than in the past could potentially disturb paleontological resources. Therefore, future development under the GPU could potentially unearth previously unrecorded resources. Fossil localities have been found in the vicinity of the City, although not in Santa Ana itself. The GPU PEIR concluded with implementation of GPU PEIR MM GEO-1 through MM GEO-3, which would prescribe requirements for monitoring based on site sensitivity for paleontological resources (GPU PEIR MM GEO-1 for high sensitivity, MM GEO-2 for low-to-high sensitivity, and MM GEO-3 for all projects), impacts would be reduced to less than significant.

Proposed Project Impact Analysis

According to the Cultural and Paleontological Resources Identification Memorandum prepared for the proposed project, while the disturbed urban soils at the project site containing Holocene-age deposits have low sensitivity, Pleistocene-age alluvial sediments may underlie these younger sediments at a relatively shallow depth. The NHMLAC records search results indicate that potentially fossil-bearing units may underlie the project area, since Pleistocene-age deposits within one mile of the project area have contained fossils. Therefore, sediments in the project area are considered to have paleontological sensitivity increasing with depth.

No significant fossils have been previously recovered from the project area, but several vertebrate and invertebrate fossils have been recovered from nearby (i.e., within one mile of the project area) exposures of rock formations anticipated to underlie the project area. The geology of the project area may include Pleistocene-age deposits at unknown depths, suggesting that project-related ground-disturbing activities, such as for the proposed subsurface parking garage that would require a maximum excavation depth of 52 feet, have the potential to destroy or otherwise adversely impact significant paleontological resources below young Holocene-age soils at unknown depths within the project area. Therefore, the proposed project would implement GPU PEIR MMs GEO-2 and GEO-3. GPU MM GEO-2 requires consultation with a geologist or paleontologist to confirm whether the grading would occur at depths that could encounter highly sensitive sediments for paleontological resources. As the Cultural and Paleontological Resources Identification Memorandum determined that grading could encounter sensitive sediments, construction activity for the proposed project would be monitored by a qualified paleontologist in compliance with GPU PEIR MM GEO-2. GPU MM GEO-3 would require work be halted in the event of a fossil discovery. Additionally, project-specific MM G-3 is proposed for implementation to provide procedures for paleontological monitoring. With implementation of GPU PEIR MMs GEO-2 and GEO-3 and project-specific MM G-3, impacts to paleontological resources would be reduced to less than significant levels. Impacts resulting from the proposed project would be consistent with the impacts disclosed in the GPU PEIR, which were determined to be less than significant with mitigation incorporated.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to paleontological resources disclosed in the GPU

PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

As discussed above, GPU PEIR MMs GEO-2 and GEO-3 and project-specific MM G-3 would be implemented to reduce potential significant impacts related to paleontological resources. These mitigation measures are provided in verbatim below. GPU PEIR MM GEO-1 is not applicable to the project, as it specifically only applies to projects involving ground disturbances in previously undisturbed areas mapped as having high paleontological sensitivity, which the project site is not.

GPU PEIR MM GEO-2:

> **Low-To-High Sensitivity.** Prior to issuance of a grading permit for projects involving ground disturbance in previously undisturbed areas mapped with "low-to-high" paleontological sensitivity, the project applicant shall consult with a geologist or paleontologist to confirm whether the grading would occur at depths that could encounter highly sensitive sediments for paleontological resources. If confirmed that underlying sediments may have high sensitivity, construction activity shall be monitored by a qualified paleontologist. The paleontologist shall have the authority to halt construction during construction activity as outlined in Mitigation Measure GEO-3.

GPU PEIR MM GEO-3:

> **All Projects.** In the event of any fossil discovery, regardless of depth or geologic formation, construction work shall halt within a 50-foot radius of the find until its significance can be determined by a qualified paleontologist. Significant fossils shall be recovered, prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and deposited in a designated paleontological curation facility in accordance with the standards of the Society of Vertebrate Paleontology (2010). The most likely repository is the Natural History Museum of Los Angeles County. The repository shall be identified and a curatorial arrangement shall be signed prior to collection of the fossils.

Project-Specific Mitigation Measure

The following project-specific mitigation measure would be required to reduce potentially significant impacts during project construction.

MM G-3:

> The project applicant shall retain a qualified professional paleontologist to monitor or supervise full-time monitoring should excavation occur into native Pleistocene-age soil and bedrock greater than 4 feet in depth. Ground disturbance refers to activities that would impact subsurface geologic deposits, such as grading, excavation, boring, etc. Activities taking place in current topsoil or within previously disturbed fill sediments, e.g., clearing, grubbing, pavement rehabilitation, do not require paleontological monitoring. Bedrock can occur at varying depths depending on the portion of the project area.
>
> If no significant fossils have been recovered after 50 percent of excavation has been completed, full-time monitoring may be modified to weekly spot-check monitoring at the discretion of the qualified professional paleontologist. If the qualified professional paleontologist determines during the course of excavations that project excavations are

located within fill or disturbed soils, or that the sensitivity for significant paleontological resources is otherwise low, then monitoring may be reduced or suspended at the qualified professional paleontologist's discretion. The determination to reduce or discontinue paleontological monitoring in the project area shall be based on the professional opinion of the qualified professional paleontologist regarding the potential for fossils to be present after a reasonable extent of the geology and stratigraphy has been evaluated.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of GPU PEIR MMs GEO-2 and GEO-3 and project-specific MM G-3, impacts related to Threshold G-6 would be less than significant.

4.4.6 CUMULATIVE IMPACTS

IMPACT ANALYSIS

Geology and Soils

GPU PEIR Impact Summary

According to the GPU PEIR, the extent of analysis of cumulative impacts for geology and soils is contiguous with the City and the sphere of influence boundary, which includes a portion of the Santa Ana River Drainage Channel. The GPU PEIR did not identify any significant cumulative impacts related to geology and soils.

Proposed Project Impact Analysis

Due to the site-specific nature of geological conditions (e.g., soils, geological features, subsurface features, seismic features), geological impacts are typically limited to individual projects and their project sites, and do not contribute to cumulative impacts. As a result, whether a project would indirectly or directly cause substantial adverse effects, including risk of loss involving the rupture from a known earthquake fault, seismic ground shaking, liquefaction, soil hazards, or landslides depends on the soil and geological conditions of the individual development site as opposed to cumulative conditions from past, present, or probable future projects. The GPU buildout and all projects on the related project lists would be subject to their own project-specific impact analysis and would be required to incorporate feasible mitigation measures to reduce any potentially significant impacts to a less than significant level. Therefore, the cumulative impacts associated with GPU buildout and the related projects are considered less than significant. As described above, the project would also implement mitigation measures (i.e., project-specific MM G-1 and MM G-2) to reduce impacts to a less than significant level. As a result, the project's incremental effects would not cause the combined cumulative impacts to become significant and thus, are not cumulatively considerable.

Paleontological Resources

GPU PEIR Impact Summary

The GPU PEIR did not identify significant cumulative impacts related to paleontological resources. However, at the GPU project level (i.e., citywide buildout), MM GEO-1 through MM GEO-3 were included in the GPU PEIR to protect previously unrecorded paleontological resources during grading activities.

Proposed Project Impact Analysis

The cumulative scenario for the proposed project includes buildout of the GPU and the 32 related projects.[11] The GPU PEIR identified a significant but mitigable impact on previously unrecorded paleontological resources, to which the related projects could incrementally contribute. As a result, the combined cumulative impact on paleontological resources is potentially significant. Such cumulative impacts from grading activities for projects within the City of Santa Ana would be reduced with the implementation of GPU PEIR MM GEO-1 through MM GEO-3. Additionally, all related projects (including those within Costa Mesa and Irvine) would adhere to their respective General Plan policies and/or mitigation measures to protect paleontological resources (e.g., Policies HCR-3.A through HCR-3.C from the Costa Mesa 2015-2035 General Plan and Mitigation Measure GEO-1 from the City of Irvine 2045 GPU PEIR).[12,13] Given that the GPU buildout and all projects on the related project lists would be subject to their own project-specific impact analysis and would be required to incorporate feasible mitigation measures to reduce any potentially significant impacts to a less than significant level, the cumulative impacts on paleontological resources associated with GPU buildout and the related projects are considered less than significant.

As discussed in the analysis for Threshold G-6, the excavation required for the proposed subsurface parking garage could encounter sensitive sediments for paleontological resources. If paleontological resources are encountered during construction, the project has the potential to contribute to cumulative impacts. However, the proposed project would implement GPU PEIR MMs GEO-2 and GEO-3 and project-specific MM G-3, which would protect any discovered paleontological resources. With implementation of the mitigation measures, the proposed project's contribution to cumulative impacts on paleontological resources would not be cumulatively considerable, and therefore, would be less than significant.

MITIGATION MEASURES

Cumulative impacts related to geologic hazards and soils would be less than significant with implementation of project-specific MMs G-1 and G-2, GPU PEIR MM GEO-2, GPU PEIR MM GEO-3, and project-specific MM G-3, as provided above, would be implemented by the project to reduce potential cumulative impacts to paleontological resources.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Cumulative impacts related to geologic hazards and soils were determined to be less than significant after implementation of project-specific MMs G-1 and G-2. Cumulative impacts related to paleontological resources would be less than significant after implementation of GPU PEIR MM-GEO-2, GPU PEIR MM-GEO-3, and project-specific MM G-3.

[11] Twenty of the 32 related projects are located within the City of Santa Ana, and thus, are included as part of the GPU buildout.

[12] City of Irvine, 2024, General Plan Update Program Environmental Impact Report, available at: https://www.cityofirvine.org/community-development/current-general-plan.

[13] City of Costa Mesa, 2016, 2015-2035 General Plan Environmental Impact Report, available at: https://www.costamesaca.gov/government/departments-and-divisions/economic-and-development-services/planning/general-plan/2015-2035-general-plan-eir.

4.5 GREENHOUSE GAS EMISSIONS

This section evaluates the potential impacts related to the greenhouse gas (GHG) emissions associated with the proposed project and the project's compliance with applicable regulations. As the project pursues buildout of part of the City's GPU Land Use Plan, which was analyzed in the GPU PEIR, this section compares the project's impacts with the impacts identified in the GPU PEIR. Consideration of the project's consistency with applicable plans, policies, and regulations, as well as the introduction of new sources of GHGs, is included in this section. GHG technical data is included in the Air Quality, Greenhouse Gas Emissions, Construction Health Risk Assessment, and Energy Modeling Outputs (Air Quality and GHG Modeling Outputs), included as Appendix B.

4.5.1 REGULATORY FRAMEWORK

FEDERAL

Federal Clean Air Act and Vehicle Standards

The U.S. Supreme Court in *Massachusetts et al. v. Environmental Protection Agency et al*. (549 U.S. 05-1120 [2007]) held that the U.S. Environmental Protection Agency (USEPA) has the authority to regulate motor vehicle GHG emissions under the federal Clean Air Act (CAA) and make a determination whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably endanger public health or welfare. In response to the ruling, the George W. Bush Administration issued Executive Order 13432 in 2007 directing the EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines.

In December 2009, the USEPA issued an endangerment finding for GHG emissions under the CAA, which set the stage for future regulations as the finding did not impose any emission reduction requirements. Accordingly, in response to the endangerment finding, the USEPA issued a Final Rule for mandatory reporting of GHG emissions in October 2009 and established the foundation for federal regulation of GHGs from new motor vehicles as air pollutants under Section 202(a) of the Clean Air Act (42 USC § 7401). This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and vehicle engines and requires facilities that emit 25,000 metric tons of carbon dioxide equivalent ($MTCO_2e$) or more per year to submit an annual report.

Corporate Average Fuel Economy (CAFE) Standards

Established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) Standards (49 Code of Federal Regulations [CFR] Parts 531 and 533) set fuel economy standards for all new passenger cars and light trucks sold in the United States. The NHTSA and the USEPA jointly administer the CAFE standards, which become more stringent each year.

In August 2016, the USEPA and NHTSA announced the adoption of phase two programs related to the fuel economy and GHG emissions standards for medium- and heavy-duty trucks. The phase two program applied to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards were expected to lower carbon dioxide (CO_2) emissions by approximately 1.1 billion$MTCO_2$ and reduce oil consumption by up to two billion barrels over the lifetime of the vehicles sold under the program. The NHTSA and the USEPA jointly published the "Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National

Program" (SAFE I Rule) in September 2019 and issued the Final SAFE Rule (i.e., SAFE Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks) in April 2020. The SAFE I Rule relaxed federal CAFE vehicle standards and revoked California's authority to set its own vehicle standards. On December 29, 2021, the NHTSA issued the final rule to repeal the SAFE I Rule, effective January 28, 2022, which removes the restrictions placed on states and local governments from developing innovative policies to address their specific environmental and public health challenges.[1] The USEPA also issued a decision on March 14, 2022, that rescinded its 2019 withdrawal of California's authority to set its own vehicle standards, which restored California's authority to implement its own GHG emission standards and zero-emission vehicle sales mandate under the Clean Air Act.[2]

STATE

Executive Order S-03-05

Executive Order S-03-05, signed by Governor Schwarzenegger in June 2005, set the following GHG reduction targets for the State:

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

Assembly Bill 1493

Assembly Bill (AB) 1493, also known as the Pavley Bill, requires that the California Air Resource Board (CARB) develop and adopt by January 1, 2005, regulations that achieve "the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." On June 30, 2009, the USEPA granted the waiver of CAA preemption to California for its GHG emissions standards for motor vehicles beginning with the 2009 model year. Pavley I regulated model years from 2009 to 2016, and Pavley II, which is now referred to as "Low Emission Vehicle III GHG Program," regulates model years from 2017 to 2025. The Advanced Clean Cars program coordinates the goals of the Low Emission Vehicle, Zero Emissions Vehicles, and Clean Fuels Outlet programs, which should provide major reductions in GHG emissions. By 2025, when the rules will be fully implemented, new automobiles will emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions from their model year 2016 levels.

Assembly Bill 32 - California Global Warming Solutions Act of 2006, Senate Bill 32 - California Global Warming Solutions Act of 2016, and Climate Change Scoping Plans

California's major initiative for reducing GHG emissions is outlined in AB 32, the California Global Warming Solutions Act of 2006, which was signed into law in 2006. AB 32 codifies the Statewide goal of reducing GHG emissions to 1990 levels by 2020 and required CARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 required CARB to adopt regulations to require reporting and verification of Statewide GHG emissions. Based on this guidance, CARB approved a 1990 Statewide GHG level and 2020 limit of 427 $MMTCO_2e$. To implement AB 32, the first Climate Change Scoping Plan (Scoping Plan) was approved by CARB on December 11, 2008, and included measures to address GHG emissions reduction strategies related to energy efficiency, water use, and

[1] Office of the Federal Register, Federal Register, Vol. 86, No. 247, December 29, 2021, available at: https://www.govinfo.gov/content/pkg/FR-2021-12-29/pdf/2021-28115.pdf.

[2] Office of the Federal Register, Federal Register, Vol. 87, No. 49, March 14, 2022, available at: https://www.govinfo.gov/content/pkg/FR-2022-03-14/pdf/2022-05080.pdf.

recycling and solid waste, among other measures. Many of the GHG emissions reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard [LCFS], Advanced Clean Car [ACC] standards, and Cap-and-Trade Program) have been adopted since approval of the Scoping Plan.

In May 2014, CARB approved the first update to the 2008 Scoping Plan, which defined CARB's climate change priorities for the next five years and set the groundwork to reach post-2020 Statewide goals. The update highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan and evaluated how to align the State's longer-term GHG emissions reduction strategies with other State policy priorities, including those for water, waste, natural resources, clean energy, transportation, and land use.

Senate Bill (SB) 32, signed into law on September 8, 2016, extended AB 32 by requiring the State to further reduce GHGs to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remained unchanged). In December 2017, CARB adopted the 2017 Scoping Plan, which provided a framework for achieving the 2030 target. The 2017 Scoping Plan relied on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, as well as implementation of then recently adopted policies, such as SB 350 and SB 1383. The 2017 Scoping Plan also put an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan, the 2017 Scoping Plan did not provide project-level thresholds for land use development. Instead, it recommended that local governments adopt policies and locally appropriate quantitative thresholds consistent with Statewide per capita goals of no more than 6 $MTCO_2e$ by 2030 and 2 $MTCO_2e$ by 2050.

AB 1279 (also known as the California Climate Crisis Act), declares the state's policy to achieve net zero GHG emissions as soon as possible, but no later than 2045. The act also aims to achieve and maintain net negative GHG emissions thereafter. By 2045, statewide GHG emissions are to be reduced to at least 85 percent below the 1990 levels. In response to the passage of AB 1279 and the identification of the 2045 GHG emissions reduction target, CARB adopted the 2022 Climate Change Scoping Plan (2022 Scoping Plan) in December 2022. The 2022 Scoping Plan builds upon the framework established by the 2008 Climate Change Scoping Plan and previous updates while identifying a new, technologically feasible, cost-effective, and equity-focused path to achieve California's climate target. The 2022 Scoping Plan includes policies to achieve a significant reduction in fossil fuel combustion, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon.

The 2022 Scoping Plan assesses the progress California is making towards reducing its GHG emissions by at least 40 percent below 1990 levels by 2030, as called for in SB 32 and laid out in the 2017 Scoping Plan; addresses recent legislation and direction from Governor Newsom; extends and expands upon these earlier plans; and implements a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045, as well as taking an additional step of adding carbon neutrality as a science-based guide for California's climate work. As stated in the 2022 Scoping Plan, "the plan outlines how carbon neutrality can be achieved by taking bold steps to reduce GHGs to meet the anthropogenic emissions target and by expanding actions to capture and store carbon through the State's natural and working lands and using a variety of mechanical approaches." Specifically, the 2022 Scoping Plan achieves the following:

- Identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030.

- Identifies a technologically feasible, cost-effective path to achieve carbon neutrality by 2045 and a reduction in anthropogenic emissions by 85 percent below 1990 levels.
- Focuses on strategies for reducing California's dependency on petroleum to provide consumers with clean energy options that address climate change, improve air quality, and support economic growth and clean sector jobs.
- Integrates equity and protecting California's most impacted communities as driving principles throughout the document.
- Incorporates the contribution of natural and working lands to the State's GHG emissions, as well as their role in achieving carbon neutrality.
- Relies on the most up-to-date science, including the need to deploy all viable tools to address the existential threat that climate change presents, including carbon capture and sequestration, as well as direct air capture.
- Evaluates the substantial health and economic benefits of taking action.
- Identifies key implementation actions to ensure success.

In addition to reducing emissions from transportation, energy, and industrial sectors, the 2022 Scoping Plan includes emissions and carbon sequestration in natural and working lands and explores how they contribute to long-term climate goals. Under the Scoping Plan Scenario, California's 2030 emissions are anticipated to be 48 percent below 1990 levels, representing an acceleration of the current SB 32 target. The Cap-and-Trade Program continues to play a large factor in the reduction of near-term emissions for meeting the accelerated 2030 reduction target. Every sector of the economy will need to begin to transition in this decade to meet these GHG emissions reduction goals and achieve carbon neutrality no later than 2045. The 2022 Scoping Plan approaches decarbonization from two perspectives, managing a phasedown of existing energy sources and technologies, as well as increasing, developing, and deploying alternative clean energy sources and technology.

Senate Bill 375 - 2008 Sustainable Communities and Climate Protection Act

SB 375, signed in August 2008, enhances the State's ability to reach AB 32 goals by directing CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. Additionally, SB 375 directs each of the State's 18 major metropolitan planning organizations to prepare a "sustainable communities strategy" (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plan (RTP). On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. The Southern California Association of Governments (SCAG) was assigned targets of an 8-percent reduction in GHGs from transportation sources by 2020 and a 19-percent reduction in GHGs from transportation sources by 2035. In the SCAG region, SB 375 also provides the option for the coordinated development of subregional plans by the subregional councils of governments and the county transportation commissions to meet SB 375 requirements.

Senate Bill 100 - California Renewables Portfolio Standard Program

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the State's Renewables Portfolio Standard (RPS) Program, which had been last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

Executive Order B-55-18 to Achieve Carbon Neutrality

On September 10, 2018, Governor Brown issued Executive Order B-55-18, which established a new Statewide goal of achieving carbon neutrality by 2045 and maintaining net negative emissions thereafter. This goal is in addition to the existing Statewide GHG emissions reduction targets established by SB 375, SB 32, SB 1383, and SB 100.

California Building Standards Code

California Code of Regulations Title 24 is referred to as the California Building Standards Code. It consists of a compilation of several distinct standards and codes related to building construction, including plumbing, electrical, interior acoustics, energy efficiency, and accessibility for persons with physical and sensory disabilities. These standards are updated every three years. The most recent update, the 2022 California Building Standards, went into effect on January 1, 2023.

Part 6 – Building Energy Efficiency Standards/Energy Code

California Code of Regulations Title 24, Part 6, is the Building Energy Efficiency Standards, also referred to as the California Energy Code. This code, originally enacted in 1978, establishes energy-efficiency standards for residential and nonresidential buildings to reduce California's energy demand. New construction and major renovations must demonstrate their compliance with the current Energy Code through submittal and approval of a Title 24 Compliance Report to the local building permit review authority and the California Energy Commission. The 2022 Energy Code continues to improve upon the previous 2019 Title 24 standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2022 Energy Code is anticipated to reduce GHG emissions by 10 $MMTCO_2e$ over the next 30 years and result in approximately $1.5 billion in consumer savings. Compliance with Title 24 is enforced through the building permit process.

Part 11 – California Green Building Standards

Title 24, Part 11, is referred to as the California Green Building Standards (CALGreen) Code and was developed to help the State achieve its GHG emissions reduction goals under AB 32 by codifying standards for reducing building-related energy, water, and resource demand, which in turn reduces GHG emissions from energy, water, and resource demand. The CALGreen Code establishes mandatory measures, which include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality, for new residential and nonresidential buildings.

REGIONAL

South Coast Air Quality Management District Interim CEQA GHG Significance Threshold for Stationary Sources, Rules, and Plans

Subsequent to the adoption of AB 32, the South Coast Air Quality Management District (SCAQMD) established the GHG CEQA Significance Threshold Working Group (Working Group) to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. The Working Group is comprised of a variety of stakeholders including state agencies, the Governor's Office of Planning and Research, CARB, and the Attorney General's Office, local agencies, city and county planning departments and utilities, etc.[3] As of the last

[3] South Coast Air Quality Management District, 2008, Board Letter – Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans, available at: https://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf.

Working Group meeting (Meeting No.15) held in September 2010, the Working Group identified a "bright-line" screening-level threshold of 3,000 $MTCO_2e$ annually for all land use types.[4] However, the proposed threshold was based on the State's GHG emissions reduction goal identified in AB 32 for the year 2020, which has been outdated, and SCAQMD never adopted the threshold.

SCAG Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 and 2024-2050)

SCAG formally adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), referred to as Connect SoCal, on September 3, 2020, to provide a roadmap for sensible ways to expand transportation options, improve air quality, and bolster Southern California's long-term economic viability. The Connect SoCal builds upon the progress made through implementation of the 2016-2040 RTP/SCS and includes ten goals focused on promoting economic prosperity, improving mobility, protecting the environment, and supporting healthy/complete communities. These performance goals were adopted to help focus future investments on the best-performing projects, as well as different strategies to preserve, maintain, and optimize the performance of the existing transportation system. Connect SoCal is forecast to help California reach its GHG reduction goals by reducing GHG emissions from passenger cars by 8 percent below 2005 levels by 2020 and 19 percent by 2035 in accordance with the most recent CARB targets adopted in March 2018. The SCS implementation strategies include focusing growth near destinations and mobility options, promoting diverse housing choices, leveraging technology innovations, and supporting implementation of sustainability policies. The SCS establishes a land use vision of center-focused placemaking, concentrating growth in and near Priority Growth Areas, transferring of development rights, urban greening, creating greenbelts and community separators, and implementing regional advance mitigation to help the region meet its regional VMT and GHG reduction goals, as required by the State.

The most recent 2024-2050 RTP/SCS (Connect SoCal 2024) was adopted by SCAG's Regional Council in April 2024. Connect SoCal 2024 outlines a vision for a more resilient and equitable future, with investment, policies, and strategies for achieving the region's shared goals through 2050. Connect SoCal 2024 sets forth a forecasted regional development pattern which, when integrated with the transportation network, measures, and policies, will reduce GHG emissions from automobiles and light-duty trucks and achieve the GHG emissions reduction target for the region set by the CARB. In addition, Connect SoCal 2024 is supported by a combination of transportation and land use strategies that outline how the region can achieve California's GHG-emission-reduction goals and federal Clean Air Act requirements. These are articulated in a set of Regional Strategic Investments, Regional Planning Policies, and Implementation Strategies. The Regional Planning Policies are a resource for County Transportation Commissions and local jurisdictions, who can refer to specific policies to demonstrate alignment with Connect SoCal 2024 when seeking resources from State or federal programs. The Implementation Strategies articulate priorities for SCAG efforts in fulfilling or going beyond the Regional Planning Policies.[5]

[4] South Coast Air Quality Management District, 2010, Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15, available at: https://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf.

[5] Southern California Association of Governments, 2024, Connect SoCal: A Plan for Navigating to a Brighter Future (2024-2050 Regional Transportation Plan/Sustainable Communities Strategy), available at: https://scag.ca.gov/sites/main/files/file-attachments/23-2987-connect-socal-2024-final-complete-040424.pdf?1714175547.

While SCAG has adopted Connect SoCal 2024, CARB has not yet certified it or approved SCAG's GHG emissions reduction calculations. Furthermore, the GPU PEIR analyzed consistency with the Connect SoCal. As such, to be consistent with the GPU PEIR, this Supplemental EIR analyzes the project's consistency with the 2020-2045 RTP/SCS. Nevertheless, the project is located in a High Quality Transit Area (HQTA) and supports alternative transportation methods and electric vehicles by providing supporting infrastructure and facilities on-site, which would ensure the project's consistency with the strategies in Connect SoCal. These strategies include enhancing the availability, access, and efficiency of different modes of mobility such as transit, walking, bicycling to better serve people in their communities and integrating alternative fuel technology systems to help minimize negative environmental impacts associated with vehicle use.[6]

LOCAL

City of Santa Ana General Plan Update

The City's GPU includes RRs, goals, and policies related to GHG emissions, including the following:

Regulatory Requirement

RR GHG-1: New buildings are required to achieve the current California Building Energy Efficiency Standards (Title 24, Part 6) and California Green Building Standards (CALGreen) Code (Title 24, Part 11). The 2019 Building Energy Efficiency Standards became effective January 1, 2020. The Building and Energy Efficiency Standards and CALGreen are updated tri-annually.

RR GHG-2: Construction activities are required to adhere to California Code of Regulations, Title 13, Section 2449, which restricts the nonessential idling of construction equipment to five minutes or less.

RR GHG-3: New buildings are required to adhere to the California Green Building Standards Code and Water Efficient Landscape Ordinance requirements to increase water efficiency and reduce urban per capita water demand.

RR GHG-7: The California Green Building Standards Code (CALGreen) requires the recycling and/or salvaging for reuse at minimum of 65 percent of the nonhazardous construction and demolition waste generated during most "new construction" projects (CALGreen Code §§ 4.408 and 5.408). Construction contractors are required to submit a construction waste management plan that identifies the construction and demolition waste materials to be diverted from disposal by recycling, reuse on the project, or salvaged for future use or sale and the amount (by weight or volume).

Conservation Element

Goal CN-1 Air Quality and Climate: Protect air resources, improve regional and local air quality, and minimize the impacts of climate change.

- *Policy CN-1.2 Climate Action Plan*: Consistency with emission reduction goals highlighted in the Climate Action Plan shall be considered in all major decisions on land use and investments in public infrastructure.

[6] Southern California Association of Governments, 2024, Connect SoCal: A Plan for Navigating to a Brighter Future (2024-2050 Regional Transportation Plan/Sustainable Communities Strategy), available at: https://scag.ca.gov/sites/main/files/file-attachments/23-2987-connect-socal-2024-final-complete-040424.pdf?1714175547.

- *Policy CN-1.4 Development Standards*: Support new development that meets or exceeds standards for energy-efficient building design and site planning.
- *Policy CN-1.6 New and Infill Residential Development*: Promote development that is mixed-use, pedestrian-friendly, transit oriented, and clustered around activity centers.
- *Policy CN-1.7 Housing and Employment Opportunities*: Improve the City's jobs/housing balance ratio by supporting development that provides housing and employment opportunities to enable people to live and work in Santa Ana.
- *Policy CN-1.8 Promote Alternative Transportation*: Promote use of alternate modes of transportation in the City of Santa Ana, including pedestrian, bicycling, public transportation, car sharing programs and emerging technologies.
- *Policy CN-1.12 Sustainable Infrastructure*: Encourage the use of low or zero emission vehicles, bicycles, non-motorized vehicles, and car-sharing programs by supporting new and existing development that includes sustainable infrastructure and strategies such as vehicle charging stations, drop-off areas for ridesharing services, secure bicycle parking, and transportation demand management programs.
- *Policy CN-1.17 Indoor Recreation*: Encourage new development to provide indoor recreation space when located in areas with high levels of localized air pollution or if site is adjacent to freeways or heavy industrial uses.
- *Policy CN-1.18 Public Investment in Parks*: Coordinate with park renovation and new development to address air quality and climate impacts by reducing the heat island affect by providing green infrastructure and shade, and reducing air pollution by providing vegetation that removes pollutants and air particles.

Goal CN-3 Energy Resources: Reduce consumption of and reliance on nonrenewable energy, and support the development and use of renewable energy sources.

- *Policy CN-3.3 Development Patterns*: Promote energy-efficient development patterns by clustering mixed use developments and compatible uses adjacent to public transportation.
- *Policy CN-3.4 Site Design*: Encourage site planning and subdivision design that incorporates the use of renewable energy systems.
- *Policy CN-3.5 Landscaping*: Promote and encourage the planting of native and diverse tree species to improve air quality, reduce heat island effect, reduce energy consumption, and contribute to carbon mitigation with special focus in environmental justice areas.
- *Policy CN-3.7 Energy Conservation Design and Construction*: Incorporate energy conservation features in the design of new construction and rehabilitation projects.

Goal CN-4 Water Resources: Conserve and replenish existing and future water resources.

- *Policy CN-4.1 Water Use*: Encourage and educate residents, business owners, and operators of public facilities to use water wisely and efficiently.
- *Policy CN-4.2 Landscaping*: Encourage public and private property owners to plant native or drought-tolerant vegetation.
- *Policy CN-4.4 Irrigation Systems*: Promote irrigation and rainwater capture systems that conserve water to support a sustainable community.

Mobility Element

Goal M-1 Comprehensive Circulation: A comprehensive and multimodal circulation system that facilitates the safe and efficient movement of people, enhances commerce, and promotes a sustainable community.

- *Policy M-1.7 Proactive Mitigation:* Proactively mitigate existing and new potential air quality, noise, congestion, safety, and other impacts from the transportation network on residents and business, especially in environmental justice communities.
- *Policy M-1.8 Environmental Sustainability:* Consider air and water quality, noise, reduction, neighborhood character, and street-level aesthetics when making improvements to travelways.

Goal M-5 Sustainable Transportation Design: A transportation system that is attractive, safe, state-of-the-art, and supports community, environmental, and conservation goals.

- *Policy M-5.6 Clean Fuels and Vehicles:* Encourage the use of alternative fuel vehicles and mobility technologies through the installation of supporting infrastructure.

City of Santa Ana Climate Action Plan

The Santa Ana Climate Action Plan (CAP) was adopted in December 2015. The CAP outlines the City's efforts to reduce carbon pollution and energy use from City operations and the community. The CAP recommends GHG emissions targets that are consistent with the reduction targets of the State of California and presents several strategies and measures that will make it possible for the City to meet the recommended targets. The CAP includes community-wide measures that are collectively estimated to reduce emissions by 47,909 $MTCO_2e$ per year by 2035. The reduction strategies are organized in five sectors: transportation and land use, energy, solid waste, water, and wastewater. The reduction measures for community-wide reductions were projected to reach the 30-percent reduction goal for 2035. Measures affecting municipal operations are projected to meet 40-percent reduction goal by 2035. Measures from the CAP that are applicable to the proposed project are as follows:

Transportation and Land Use Measures

- Development of Local Retail Service Nodes
- Local Residential Nodes near Retail and Employment
- Local Employment Nodes near Residential and Retail Areas
- End-of-trip Facilities in New Projects
- Design Guidelines for External Bike/Pedestrian/Transit Connectivity
- Design Guidelines for Internal Bike/Pedestrian/Transit Connectivity
- Adjust Parking Ratios

Community-wide Measures

- Property Assessed Clean Energy (PACE) Financing for Commercial Properties
- Property Assessed Clean Energy Financing for Residential Properties
- Solar Photovoltaic Systems – New Private Installs

- Southern California Edison and Southern California Gas Company Residential Programs
- Title 24 Energy Efficiency Standards – Commercial
- Title 24 Energy Efficiency Standards – Residential

Solid Waste, Water, and Wastewater Measures

- AB 341 Commercial and Multifamily Recycling
- Food Waste Digestion
- Rainwater Harvesting
- Turf Removal

4.5.2 ENVIRONMENTAL SETTING

GLOBAL CLIMATE CHANGE

Climate change is the observed increase in the average temperature of Earth's atmosphere and oceans over an extended period. The term "climate change" is often used interchangeably with "global warming," but climate change is preferred because it conveys changes are happening in addition to rising temperatures (such as changing wind patterns, precipitation, and storms). The baseline against which these changes are measured originates from historical records that identify temperature changes that occurred in the past, such as during previous ice ages. The global climate is changing continuously, as evidenced in the geologic record which indicates repeated episodes of substantial warming and cooling, typically at an incremental rate over the course of thousands of years. However, scientists have observed acceleration in the rate of warming over the past 150 years.

The United Nations' Intergovernmental Panel on Climate Change expressed that the rise and continued growth of atmospheric CO_2 concentrations is unequivocally due to human activities, which has led the climate to warm at an unprecedented rate in the last 2,000 years. Since the late 1700s, estimated concentrations of CO_2, methane (CH_4), and nitrous oxide (N_2O) in the atmosphere have increased by over 43 percent, 156 percent, and 17 percent, respectively, primarily due to human activity. Emissions resulting from human activities are thereby contributing to an average increase in Earth's temperature.

Greenhouse Gases

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the atmosphere from space. A portion of the radiation is absorbed by the earth's surface, and a smaller portion of this radiation is reflected toward space. The natural process through which heat is retained in the troposphere is called the "greenhouse effect."[7] The greenhouse effect traps heat in the troposphere through a threefold process as follows: Short wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long wave radiation; and GHGs in the upper atmosphere absorb this long wave radiation and emit this long wave radiation into space and toward the Earth. This "trapping" of the long wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect.

[7] The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth's surface to 10 to 12 kilometers.

GHGs absorb and re-emit infrared radiation in the atmosphere by natural processes and human activities. The gases that are widely seen as the principal contributors to human-induced climate change include CO_2, CH_4, N_2O, fluorinated gases, such as hydrofluorocarbons and perfluorocarbons, and sulfur hexafluoride (SF_6) as described in detail below. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. CO_2 emissions are usually by-products of fossil fuel combustion, and CH_4 emissions result from off-gassing associated with agricultural practices and landfills. Human-made GHGs, many of which have greater heat-absorption potential than CO_2, include fluorinated gases and SF_6. Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere, and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a timescale of generally 100 years. Because GHGs absorb different amounts of heat, CO_2 is used as a common reference gas to relate the amount of heat absorbed to the amount of the gas emitted. This relationship is referred to as a "carbon dioxide equivalent" (CO_2e), which is the amount of GHG emitted multiplied by its GWP. CO_2 has a 100-year GWP of one. By contrast, CH_4 has a GWP of 28, meaning its global warming effect is 30 times greater than CO_2 on a molecule per molecule basis.

Carbon Dioxide (CO_2). Carbon dioxide is primarily generated by fossil fuel combustion in stationary and mobile sources. Due to the emergence of industrial facilities and mobile sources in the past 250 years, CO_2 emissions from fossil fuel combustion increased by a total of 1.8 percent between 1990 and 2019.[8] Between 2019 and 2020, the decrease in total GHG emissions was driven largely by a 10.5 percent decrease in CO_2 emissions from fossil fuel combustion, including a 13.3 percent decrease in transportation sector emissions from less travel due to the COVID-19 pandemic and a 10.4 percent decrease in emissions in the electric power sector.[9] CO_2 is the most widely emitted GHG and is the reference gas (GWP of 1) for determining GWPs for other GHGs.

Methane (CH_4). Methane is emitted from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. The top three CH_4 sources in the nation are landfills, natural gas systems, and enteric fermentation. CH_4 is the primary component of natural gas, used for space and water heating, steam production, and power generation. The GWP of CH_4 used in California Emissions Estimator Model (CalEEMod), version 2022.1 is based on Intergovernmental Panel on Climate Change 's *Fourth Assessment Report* and is 25.

Nitrous Oxide (N_2O). Nitrous oxide is produced by both natural and human related sources. Primary human related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. The GWP of N_2O used in CalEEMod is also based on Intergovernmental Panel on Climate Change 's *Fourth Assessment Report* and is 298.

Hydrofluorocarbons (HFCs). Typically used as refrigerants for both stationary refrigeration and mobile air conditioning, use of HFCs for cooling and foam blowing is increasing, as the continued phase out of chlorofluorocarbons (CFCs) and HFCs gains momentum. In 2022, California banned

[8] United States Environmental Protection Agency, 2021, Inventory of United States Greenhouse Gas Emissions and Sinks 1990 to 2019, available at: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2019.

[9] Ibid.

the sale of new bulk HFCs and only allows the use of reclaimed HFCs. The GWP of HFCs range from 4.84 for HFC-161 to 14,600 for HFC-23.

Perfluorocarbons (PFCs). PFCs are compounds consisting of carbon and fluorine and are primarily created as a byproduct of aluminum production and semiconductor manufacturing. PFCs are potent GHGs with a GWP several thousand times that of CO_2, depending on the specific PFC. Another area of concern regarding PFCs is their long atmospheric lifetime (up to 50,000 years). The GWP of PFCs range from 7,380 to 12,400.

Sulfur hexafluoride (SF_6). SF_6 is a colorless, odorless, nontoxic, nonflammable gas. SF_6 is the most potent GHG that has been evaluated by the Intergovernmental Panel on Climate Change with a GWP of 25,200. However, its global warming contribution is not as high as the GWP would indicate due to its low mixing ratio compared to CO_2 (4 parts per trillion in 1990 versus 365 parts per million, respectively).

Water Vapor (H_2O). Although H_2O has not received the scrutiny of other GHGs, it is the primary contributor to the greenhouse effect. Natural processes, such as evaporation from oceans and rivers, and transpiration from plants, contribute 90 percent and 10 percent of the water vapor in our atmosphere, respectively. The primary human related source of H_2O comes from fuel combustion in motor vehicles; however, it does not contribute a significant amount (less than one percent) to atmospheric concentrations of H_2O. The Intergovernmental Panel on Climate Change has not determined a GWP for H_2O.

In addition to the six major GHGs discussed above (excluding H_2O), many other compounds have the potential to contribute to the greenhouse effect. Some of these substances are identified as stratospheric ozone (O_3) depleting substances which degrade under intense ultraviolet light in the stratosphere. When they break down, they release chlorine or bromine atoms, which then deplete the O_3.[10] As such, the gradual phase out for their use and consumption is currently in effect. The following is a listing of these compounds:

Hydrochlorofluorocarbons (HCFCs). HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, all developed countries that adhere to the Montreal Protocol are subject to a consumption cap and gradual phase out of HCFCs. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The GWP of HCFCs range from 56.4 for HCFC-122 to 2,300 for HCFC-142b.

1,1,1 trichloroethane. 1,1,1 trichloroethane or methyl chloroform is a solvent and degreasing agent commonly used by manufacturers. The GWP of methyl chloroform is 161 times that of CO_2.

Chlorofluorocarbons (CFCs). CFCs are used as refrigerants, cleaning solvents, and aerosols spray propellants. CFCs were also part of the EPA's Final Rule (57 Federal Register 3374) for the phase out of O_3 depleting substances. Currently, CFCs have been replaced by HFCs in cooling systems and a variety of alternatives for cleaning solvents. Nevertheless, CFCs remain suspended in the atmosphere contributing to the greenhouse effect. CFCs are potent GHGs with GWPs ranging from 3,550 for CFC-11 to 16,200 for CFC-13.

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without the natural heat-trapping effect of GHGs, the earth's surface would be about 33 degrees Celsius (°C) cooler. GHG emissions from human activities, particularly the consumption of fossil fuels for

[10] United States Environmental Protection Agency, Ozone-Depleting Substances, https://www.epa.gov/ozone-layer-protection/ozone-depleting-substances, accessed May 2024.

electricity production and transportation, are believed to have elevated the concentration of these gases in the atmosphere beyond the level of concentrations that occur naturally.

Climate Change Impacts

Globally, climate change can affect environmental resources through impacts related to future temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. Long-term trends have found that each of the past three decades has been warmer than all the previous decades in the instrumental record, and the decade from 2000 through 2010 has been the warmest. Due to past and current activities, anthropogenic GHG emissions are increasing the global mean surface temperature at a rate of 0.2°C per decade. In addition to these findings, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades.

CLIMATE CHANGE IN CALIFORNIA

Greenhouse Gases

Based on the CARB California Greenhouse Gas Inventory for 2000-2021, California produced 381.3 million metric tons of CO_2e ($MMTCO_2e$) in 2021, which is 12.6 $MMTCO_2e$ higher than 2020 levels.[11] The decrease in emissions during 2020 is likely due to the COVID-19 pandemic. The major source of GHG emissions in California is the transportation sector, which comprises 38.2 percent of the State's total GHG emissions. The industrial sector is the second largest source, comprising 19.4 percent of the State's GHG emissions, while electric power accounts for approximately 16.4 percent. The magnitude of California's total GHG emissions is due in part to its large size and population compared to other states. However, a factor that reduces California's per capita fuel use and GHG emissions as compared to other states is its relatively mild climate. In 2016, the State of California achieved its 2020 GHG emissions reduction target of reducing emissions to 1990 levels as emissions fell below 431 $MMTCO_2e$. The annual 2030 Statewide target emissions level is 260 $MMTCO_2e$.

Climate Change Impacts

Potential impacts of climate change in California may include loss in water supply from reduced snowpack; sea level rise; and an increase in extreme heat days per year, large forest fires, and drought years. Below is a summary of some of the potential effects that could be experienced in California due to climate change.

Air Quality

Scientists project that the annual average maximum daily temperatures in California could rise by 2.4 to 3.2°C in the next 50 years and by 3.1 to 4.9°C in the next century. Higher temperatures are conducive to air pollution formation, and rising temperatures could lead to worsened air quality in California. As temperatures have increased in recent years, the area burned by wildfires throughout the State has increased, and wildfires have occurred at higher elevations in the Sierra Nevada Mountains. Severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks.

[11] California Air Resource Board, 2023, California Greenhouse Gas Emissions from 2000 to 2021: Trends of Emissions and Other Indicators, available: https://ww2.arb.ca.gov/sites/default/files/2023-12/2000_2021_ghg_inventory_trends.pdf.

Water Supply

The average early spring snowpack in the western United States, including the Sierra Nevada Mountains, decreased by about 10 percent during the last century. During the same period, sea levels rose over 0.15 meter along the Central and Southern California coasts. The Sierra snowpack provides most of California's water supply as snow that accumulates during wet winters is released slowly during the dry months of spring and summer. A warmer climate is predicted to reduce the fraction of precipitation that falls as snow and the amount of snowfall at lower elevations, thereby reducing the total snowpack. Year-to-year variability in Statewide precipitation levels has increased since 1980, meaning that wet and dry precipitation extremes have become more common. The overall impact of climate change on future precipitation trends and water supplies in California is uncertain, although projections indicate that the average spring snowpack in the Sierra Nevada and other mountain catchments in Central and Northern California will decline by approximately 66 percent from its historical average by 2050.

Hydrology and Sea Level Rise

Climate change could affect the intensity and frequency of storms and flooding and induce substantial sea level rise in the coming century. The rate of increase of global mean sea levels between 1993 to 2020, observed by satellites, is approximately 3.3 millimeters per year, double the 20th century trend of 1.6 millimeters per year. A rise in sea levels could erode 31 to 67 percent of Southern California beaches and cause flooding of approximately 370 miles of coastal highways during 100-year storm events. This would also jeopardize California's water supply due to saltwater intrusion and induce groundwater flooding and/or exposure of buried infrastructure. Furthermore, increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

Agriculture

California's agricultural industry produces over a third of the country's vegetables and two-thirds of the country's fruits and nuts. Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, certain regions of agricultural production could experience water shortages of up to 16 percent, which would increase water demand as hotter conditions lead to the loss of soil moisture. In addition, crop yield could be threatened by water-induced stress and extreme heat waves, and plants may be susceptible to new and changing pest and disease outbreaks. Temperature increases could also change the time of year that certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality.

Ecosystems and Wildlife

The annual average maximum daily temperatures in California could rise by 4.4 to 5.8 degrees Fahrenheit in the next 50 years and by 5.6 to 8.8 degrees Fahrenheit in the next century. Rising temperatures resulting from climate change could have four major impacts on plants and animals related to (1) timing of ecological events; (2) geographic distribution and range; (3) species' composition and the incidence of non-native species within communities; and (4) ecosystem processes, such as carbon cycling and storage. Increases in wildfire would further remove sensitive habitat, increased severity in droughts would potentially starve plants and animals of water, and sea level rise would affect sensitive coastal ecosystems.

EXISTING ON-SITE GREENHOUSE GAS EMISSIONS

For informational purpose, annual operational emissions from existing land uses (i.e., commercial and retail uses) are summarized in Table 4.5-1: Existing Operational Greenhouse Gas Emissions. The most recent version of the CalEEMod, version 2022.1 was used to calculate these GHG emissions. The GPU PEIR determined that the existing City's GHG emission (2020) is approximately 460,686 $MTCO_2e$. In addition, the GPU PEIR determined that the existing City's GHG emission (2020) per service population is approximately 4.8 $MTCO_2e$ per capita.

Table 4.5-1: Existing Operational Greenhouse Gas Emissions

Source	CO2	CH4	N2O	Refrigerants	CO2e
	Metric Tons/year [a]				
Direct Emissions					
Area Source	3.64	<0.01	<0.01	-	3.65
Mobile Source	7,713.00	0.42	0.34	14.0	7,838.00
Refrigerants	-	-	-	11.2	11.20
Total Direct Emissions[b]	7,716.64	0.42	0.34	25.20	7,852.85
Indirect Emissions					
Energy	1,125.00	0.08	0.01	-	1,129.00
Solid Waste	70.50	7.04	0.00	-	247.00
Water Demand	62.60	1.03	0.02	-	95.80
Total Indirect Emissions[b]	1,258.10	8.15	0.03	0.00	1,471.80
Total Existing Emissions ($MTCO_2e$)[b]	**9,324.65**				

Notes:

[a] Emissions calculated using California Emissions Estimator Model Version 2022.1 (CalEEMod) computer model.

[b] Totals may be slightly off due to rounding.

Source: Refer to the Air Quality and GHG Modeling Outputs (Appendix B) for assumptions used in this analysis.

4.5.3 THRESHOLDS OF SIGNIFICANCE

The significance thresholds used to evaluate the impacts of the proposed project on air quality are based on Appendix G of the State CEQA Guidelines. A project would have a significant impact related to greenhouse gas emissions if it would:

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

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

4.5.4 METHODOLOGY

The baseline against which to compare potential impacts of the project includes the natural and anthropogenic drivers of global climate change, including worldwide GHG emissions from human

activities that have increased by about 90 percent since 1970.[12] As a result, the study area for climate change and the analysis of GHG emissions is broad. However, the study area is also limited by State CEQA Guidelines Section 15064.4(b), which directs lead agencies to consider an "indirect physical change" only if that change is a reasonably foreseeable impact, which may be caused by the project.

State CEQA Guidelines Section 15064.4 gives lead agencies the discretion to assess GHG emissions of projects quantitatively or qualitatively, while also considering several other factors that may be used in the determination of significance of GHG emissions from a project, including the extent to which the project may increase or reduce GHG emissions, whether a project exceeds an applicable significance threshold, and the extent to which the project complies with regulations or requirements adopted to implement a plan for the reduction or mitigation of GHG emissions.

However, State CEQA Guidelines Section 15064.4 does not establish a threshold of significance. State CEQA Guidelines Section 15064.6 provides lead agencies the discretion to establish significance thresholds for their respective jurisdictions, and in establishing those thresholds, a lead agency may appropriately look to thresholds developed by other public agencies or suggested by other experts, if any threshold chosen is supported by substantial evidence. The City of Santa Ana has adopted a CAP; however, the CAP does not contain a numerical significance threshold for assessing impacts related to GHG emissions. Similarly, SCAQMD, Governor's Office of Planning and Research, CARB, California Air Pollution Control Officers Association, or any other State or applicable regional agency has yet to adopt a numerical significance threshold for assessing GHG emissions that is applicable to the project. As previously discussed, the SCAQMD formed a Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents and was proposing to adopt a tiered approach for evaluating GHG emissions for development projects where SCAQMD is the lead agency. As of the last Working Group meeting held in September 2010, the Working Group identified a "bright-line" screening-level threshold of 3,000 $MTCO_2e$ annually for all land use types.[13,14] However, the proposed threshold was based on the State's GHG emissions reduction goal identified in AB 32 for the year 2020, which has been outdated, and SCAQMD never adopted the threshold.

Impacts of climate change are experienced on a global scale regardless of the location of GHG emission sources, and therefore, a numerical significance threshold for individual development projects is speculative. Throughout the State, air districts are moving from numerical significance thresholds to qualitative significance thresholds that focus on project features to reduce GHG emissions or consistency with GHG reduction plans. For example, in the Bay Area Air Quality Management District's 2022 CEQA Guidelines, the GHG thresholds of significance are either whether land use projects include certain project design elements related to buildings and transportation or whether the project is consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b). This is a major update to Bay Area Air Quality Management District's 2017 CEQA Guidelines, where a numerical significance threshold was required. To reduce GHG emissions impact, it is more effective for development

[12] United States Environmental Protection Agency, Global Greenhouse Gas Emissions Data, available at: https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data, accessed February 2024.

[13] South Coast Air Quality Management District, 2008, Board Letter – Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans, available at: https://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf.

[14] South Coast Air Quality Management District, September 2010, Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15, available at: https://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf.

projects to include project features that directly or indirectly reduce GHG emissions, than relying on a numerical significance threshold, which highly depends on the type and size of the development.

Therefore, the significance of the project's potential impacts regarding GHG emissions and climate change will be assessed solely on its consistency with plans and policies adopted for the purposes of reducing GHG emissions and mitigating the effects of climate change and the project's ability to incorporate sustainable features and strategies in its design to reduce GHG emissions. The analysis has also quantified the project's GHG emissions for informational purposes. Project construction would primarily generate GHG emissions from construction equipment operation on-site, construction worker vehicle trips to and from the project site, and from construction material deliveries to and from the project site. Construction input data for CalEEMod include, but are not limited to, (1) the anticipated start and finish dates of construction activity; (2) inventories of construction equipment to be used; and (3) areas to be excavated and graded. The CalEEMod construction assumptions assume the proposed project would be constructed in five phases over approximately 20 years, beginning in January 2026. Table 4.1-6: Construction Assumptions, in Section 4.1 Air Quality, summarizes the proposed construction schedule, the total construction area of each phase, and the estimated soil export volume of each phase.

Operation of the proposed project would generate direct GHG emissions associated with area sources (such as landscape maintenance), mobile sources, and refrigerants. Indirect emissions from the proposed project would include emissions from energy consumption, water demand, and solid waste generation. As with the calculation of existing emissions, the most recent version of CalEEMod was used to calculate project-related GHG emissions. The project-specific trip generations (provided by Linscott, Law, and Greenspan Engineers) are discussed in detail in Section 4.13, Transportation, of this Supplemental EIR. Operational emissions were modeled at the completion year of each phase. Phase 1 would be completed in 2030, Phase 2 would be completed in 2033, Phase 3 would be completed in 2036, Phase 4 would be completed in 2040, and project buildout would be in 2044. The total existing (2024 baseline) emissions, shown in Table 4.5-1: Existing Operational Greenhouse Gas Emissions were deducted from the total project emissions to determine the net project-generated emissions. It should be noted that individual projects do not generate sufficient GHG emissions to directly influence climate change. However, physical changes caused by a project can contribute incrementally to significant cumulative effects, even if individual changes resulting from a project are limited. As a result, the issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. According to State CEQA Guidelines Section 15064(h)(1), "cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects. Per State CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements that would avoid or substantially lessen the cumulative problem in the geographic area of the project. To qualify, such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans, and plans or regulations for the reduction of GHG emissions. Therefore, a lead agency can make a finding of less than significant for GHG emissions if a project

complies with adopted programs, plans, policies, and/or other regulatory strategies to reduce GHG emissions.

4.5.5 PROJECT IMPACTS

GHG-1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? *[GPU PEIR Impact 5.7-1]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

The significance determination for Impact 5.7-1 of the GPU PEIR focused on whether buildout of the GPU would meet the long-term GHG reduction goal under Executive Order S-03-05, which does not fully align with the analysis of Threshold GHG-1 presented herein.

According to the analysis of Impact 5.7-1 of the GPU PEIR, if project GHG emissions are below the SCAQMD Working Group's draft annual 3,000-$MTCO_2e$ bright-line screening threshold, GHG emissions impacts would be considered less than significant. The GPU PEIR determined that buildout of the GPU would result in a net decrease of 255,878 $MTCO_2e$ of GHG emissions (12 percent decrease in GHG emissions) from existing conditions and would not exceed the annual 3,000-$MTCO_2e$ SCAQMD bright-line screening threshold. In addition, the GPU PEIR determined that buildout of the GPU would decrease GHG emissions per service population from 4.8 $MTCO_2e$ per capita for the existing baseline year to 3.5 $MTCO_2e$ per capita in horizon year 2045, despite an increase in population and employment in the City; this reduction in GHG emissions is attributed to regulations adopted to reduce GHG emissions and turnover of California's on-road vehicle fleets.

However, Impact 5.7-1 of the GPU PEIR also analyzed the potential for conflict with the GHG reduction goals established under Executive Order S-03-05, which required a Statewide GHG emissions reduction from existing conditions to achieve a 40-percent reduction by 2030 and an 80-percent reduction by 2050. For the buildout year of the GPU of 2045, the goal would be a 70-percent reduction compared to 2020 levels. Accordingly, the GPU PEIR determined that, even though implementation of the GPU would result in a decrease in GHG emissions in 2045 from existing baseline year, the reduction would only be 12 percent and would not meet the long-term GHG reduction goal of 70 percent under Executive Order S-03-05. The GPU PEIR included GPU PEIR Mitigation Measure GHG-1, which requires the City to update the Climate Action Plan every 5 years to ensure that the City is tracking and monitoring its GHG emissions to chart a trajectory to achieve the long-term year 2050 GHG reduction goal set by Executive Order S-03-05. Nonetheless, because the City has not established a plan past 2030 that identifies major advancement in technology to allow the City to meet the goal of the executive order, the GPU PEIR concluded that impacts would be significant and unavoidable. The GPU PEIR also acknowledged that GPU PEIR Mitigation Measure GHG-1 is not a project-specific mitigation measure or directly related to development projects.

Proposed Project Impact Analysis

As discussed above, the proposed project's GHG emissions are quantified for informational purposes only as neither the City nor any other public agency has an applicable numeric threshold for GHG emissions. CalEEMod was used to calculate project-related GHG emissions. The existing commercial retail structures on-site are currently in operation, and, as such, the analysis

below presents the proposed project's net increase in GHG emissions from existing conditions.[15]

Construction

The proposed project would involve the demolition of existing commercial retail uses and the construction of a mix of residential and commercial uses. Construction of the proposed project would generate temporary GHG emissions primarily from construction equipment, construction worker trips to and from the project site, and heavy trucks to transport demolition debris, excavated soil, and building materials. Construction GHG emissions are typically summed and amortized over the lifetime of a project (conservatively assumed to be 30 years) and then added to the operational emissions.

The proposed project would be constructed over five phases in approximately 20 years, beginning in January 2026. For the GHG emission analysis, the modeling assumed no overlap between each construction phase would occur. Table 4.5-2: Construction Greenhouse Gas Emissions, summarizes the total GHG emissions from each phase and the amortized GHG emissions. As shown below, the construction of the proposed project would result in approximately 18,196.40 $MTCO_2e$ of GHG emissions. Amortized over a 30-year period per the SCAQMD guidance, the proposed project would generate 606.55 $MTCO_2e$ per year of GHG emissions.

Table 4.5-2: Construction Greenhouse Gas Emissions ($MTCO_2e$)

Construction Year	CO_2	CH_4	N_2O	Refrigerants	Total $MTCO_2e$
Phase 1					
2026	2,767	0.18	0.38	2.15	2,886
2027	1,022	0.04	0.07	0.85	1,046
2028	871	0.03	0.04	0.40	885
2029	792	0.02	0.04	0.57	805
2030	15.2	<0.01	<0.01	0.01	15.3
Phase 1 Total	5,467.2	0.27	0.53	3.98	5,637.3
Phase 1 Amortized	182.24	0.01	0.02	0.13	187.91
Phase 2					
2030	1,712	0.09	0.20	1.09	1,774
2031	967	0.03	0.03	0.60	977
2032	816	0.02	0.02	0.45	824
2033	18.4	<0.01	<0.01	0.01	18.5
Phase 2 Total	3,513.4	0.14	0.25	2.15	3,593.5
Phase 2 Amortized	117.11	<0.01	0.01	0.07	119.78
Phase 3					
2033	659	0.03	0.06	0.27	677
2034	436	0.01	0.01	0.14	439
2035	432	0.01	0.01	0.12	436
2036	48.3	<0.01	<0.01	0.01	48.6
Phase 3 Total	1,575.3	0.05	0.08	0.54	1,600.6
Phase 3 Amortized	52.51	<0.01	<0.01	0.02	53.35
Phase 4					
2036	1,637	0.07	0.23	0.57	1,707
2037	857	0.02	0.04	0.22	868
2038	847	0.02	0.03	0.19	857

[15] While some of the tenant spaces on-site are currently vacant, such spaces have a history of being in operation and could be reoccupied and become operational without discretionary approval.

Table 4.5-2: Construction Greenhouse Gas Emissions ($MTCO_2e$)

Construction Year	CO_2	CH_4	N_2O	Refrigerants	Total $MTCO_2e$
2039	839	0.02	0.03	0.16	849
2040	251	0.01	0.01	0.04	254
Phase 4 Total	4,431	0.14	0.34	1.18	4,535
Phase 4 Amortized	147.7	<0.01	0.01	0.04	151.17
Phase 5					
2040	497	0.02	0.07	0.11	517
2041	841	0.03	0.07	0.13	864
2042	519	0.01	0.01	0.06	523
2043	516	0.01	0.01	0.05	521
2044	402	0.01	0.01	0.03	405
Phase 5 Total	2775.00	0.08	0.17	0.38	2830.00
Phase 5 Amortized	92.50	<0.01	<0.01	0.01	94.33
Total Phase 1 Through Phase 5 Construction Emissions	**17,761.9**	**0.68**	**1.37**	**8.23**	**18,196.4**
Total Phase 1 Through Phase 5 Amortized Emissions	**592.06**	**0.02**	**0.05**	**0.27**	**606.55**

Notes: $MTCO_2e$ = metric tons of carbon dioxide equivalent.
Source: Refer to the Air Quality and GHG Modeling Outputs (Appendix B).

Operation

Annual operational emissions and amortized construction emissions for each phase of the proposed project are presented in Table 4.5-3: Project Operational Greenhouse Gas Emissions.

Table 4.5-3: Project Operational Greenhouse Gas Emissions

Source	CO_2	CH_4	N_2O	Refrigerants	CO_2e
	Metric Tons/year[a]				
Phase 1					
Direct Emissions					
Construction (amortized over 30 years)	182.24	0.01	0.02	0.13	187.91
Area Source[b]	352	0.01	<0.01	-	352
Mobile Source	4,629	0.22	0.19	4.58	4,697
Refrigerants	-	-	-	0.57	0.57
Total Direct Emissions	5,163.24	0.24	0.21	5.28	5,237.48
Indirect Emissions					
Energy	944	0.06	0.01	-	947
Solid Waste	30.6	3.06	0	-	107
Water Demand	37.6	0.62	0.01	-	57.5
Total Indirect Emissions	1,012.2	3.74	0.02	0.0	1,111.5
Total Phase 1 Emissions	**6,348.98 $MTCO_2e$/year**				
Phases 1 through 2					
Direct Emissions					
Construction (amortized over 30 years)	117.11	<0.01	0.01	0.07	119.78
Area Source[b]	364	0.01	<0.01	-	365
Mobile Source	6,197	0.28	0.25	4.19	6,284

Table 4.5-3: Project Operational Greenhouse Gas Emissions

Source	CO_2	CH_4	N_2O	Refrigerants	CO_2e
	Metric Tons/year[a]				
Refrigerants	-	-	-	0.57	0.57
Total Direct Emissions	6,678.11	0.29	0.26	4.83	6,769.35
Indirect Emissions					
Energy	1733	0.12	0.01	-	1739
Solid Waste	64.5	6.44	0	-	226
Water Demand	75.7	1.25	0.03	-	116
Total Indirect Emissions	1,873.2	7.81	0.04	0.0	2,081.0
Total Phases 1 Through 2 Emissions	**8,850.35 $MTCO_2e$/year**				
Phases 1 through 3					
Direct Emissions					
Construction (amortized over 30 years)	52.51	<0.01	<0.01	0.02	53.35
Area Source[b]	368	0.01	<0.01	-	369
Mobile Source	6,167	0.26	0.25	2.7	6,250
Refrigerants	-	-	-	1.53	1.53
Total Direct Emissions	6,587.51	0.27	0.25	4.25	6,673.88
Indirect Emissions					
Energy	2,035	0.14	0.01	-	2,042
Solid Waste	76.2	7.61	0	-	266
Water Demand	88.8	1.46	0.04	-	136
Total Indirect Emissions	2,200	9.21	0.05	0.0	2,444
Total Phases 1 Through 3 Emissions	**9,117.88 $MTCO_2e$/year**				
Phases 1 through 4					
Direct Emissions					
Construction (amortized over 30 years)	147.7	<0.01	0.01	0.04	151.17
Area Source[b]	386	0.01	<0.01	-	386
Mobile Source	8326	0.33	0.33	1.94	8434
Refrigerants	-	-	-	2.02	2.02
Total Direct Emissions	8,859.7	0.34	0.34	4.0	8,973.19
Indirect Emissions					
Energy	4,349	0.3	0.03	-	4,365
Solid Waste	119	11.9	0	-	417
Water Demand	214	3.54	0.09	-	328
Total Indirect Emissions	4,682	15.74	0.12	0.0	5,110.0
Total Phases 1 Through 4 Emissions	**14,083.19 $MTCO_2e$/year**				
Phase 1 through 5 (Full Buildout)					
Direct Emissions					
Construction (amortized over 30 years)	592.06	0.02	0.05	0.27	606.55
Area Source[b]	391	0.01	<0.01	-	392
Mobile Source	8,633	0.32	0.34	0.94	8,743
Refrigerants	-	-	-	2.4	2.4
Total Direct Emissions	9,616.06	0.35	0.39	3.61	9,743.95
Indirect Emissions					
Energy	4,782	0.33	0.03	-	4,799
Solid Waste	137	13.7	0	-	479
Water Demand	238	3.87	0.09	-	362
Total Indirect Emissions	5,157	17.9	0.12	0.0	5,640
Total Project-Related Emissions	**15,383.95 $MTCO_2e$/year**				

Table 4.5-3: Project Operational Greenhouse Gas Emissions

Source	CO_2	CH_4	N_2O	Refrigerants	CO_2e
	Metric Tons/year[a]				
Net Increase from Existing Conditions[c]	**6,059.30 $MTCO_2e$/year**				
City of Santa Ana GPU Horizon Year 2045 GHG Emission per Service Population	**3.5 $MTCO_2e$/year**				
Net Increase in Emissions from Existing Conditions Per Service Population[d]	**1.40 $MTCO_2e$/year**				

Notes:

[a] Emissions calculated using California Emissions Estimator Model Version 2022.1 (CalEEMod) computer model; totals may be slightly off due to rounding.

[b] Per project-specific Mitigation Measure MM AQ-1, the proposed project would utilize at least 50 percent electric landscaping equipment (e.g., lawnmowers, leaf blowers, hedge trimmers). However, as a conservative analysis, area source emissions do not account for this mitigation measure.

[c] Net increase is calculated by total project-related emissions (full buildout) minus existing conditions; refer to Table 4.5-1: Existing Operational Greenhouse Gas Emissions.

[d] The project's service population is calculated by adding 3,659 residents and approximately 657 net new jobs, resulting in a total of 4,316 people. Net Increase in emissions is calculated as net increase in emissions from existing conditions divided by service population.

Source: Refer to the Air Quality and GHG Modeling Outputs (Appendix B) for assumptions used in this analysis.

As shown in Table 4.5-3: Project Operational Greenhouse Gas Emissions, at full buildout, the total amount of project-related GHG emissions from direct and indirect sources combined would result in a net increase of 6,059.30 $MTCO_2e$ per year from existing conditions. The net increase in emissions from the proposed project compared to existing conditions is 1.40 $MTCO_2e$ per year. Compared to the GPU horizon year emissions per service population of 3.5 $MTCO_2e$ per year, the proposed project would result in a less severe impact.

As demonstrated in the analysis of Impact GHG-2, the proposed project would be consistent with the 2022 Scoping Plan, 2020-2045 RTP/SCS, City of Santa Ana General Plan, and the City's CAP. As the proposed project is consistent with these GHG reduction plans, the proposed project would also be consistent with the State's long-term goal to achieve statewide carbon neutrality (zero-net emissions). Specifically, the proposed project would be consistent with several GPU goals and policies that may reduce GHG emissions, including goals and policies from the Conservation Element related to air quality and climate, energy resources, and water resources, and those from the Mobility Element related to sustainable transportation design, as shown in Table 4.5-6, Consistency with the Santa Ana General Plan Update. For example, the proposed project would be consistent with policies CN-1.6 and CN-3.3 related to development patterns near transit as the proposed project would construct a mixed-use development near several bus stops. The project would also be consistent with policies CN-1.8, CN-1.12, M-5.6 related to alternative transportation and sustainable transportation by providing short- and long-term bicycle parking, installing EV charging stations, and developing sidewalks and pedestrian pathways. Related to landscaping and open space, the proposed project would be consistent with policies CN-1.18, CN-3.5, CN-4.1, CN-4.2, and CN-4.4 by constructing open spaces (i.e., pocket parks, gathering areas, and fitness loop), incorporating immersive garden landscaping throughout the project site, and incorporating features that would reduce water usage such as water efficient irrigation, native trees, and drought-tolerant plants.

Accordingly, impacts related to GHG emissions resulting from the proposed project would be less than significant and would be less when compared to the impacts disclosed in the GPU PEIR, which were determined to be significant and unavoidable even with implementation of mitigation.

For the reasons aforementioned, the proposed project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be significant and unavoidable. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis, or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold GHG-1 would be less than significant. Therefore, no mitigation measures are required. Nonetheless, project-specific Mitigation Measure MM AQ-1 (related to the use of electric landscaping equipment) in Section 4.1, Air Quality, of this Supplemental EIR, is required to reduce potentially significant impacts to air quality during proposed project operation; this mitigation measure would also reduce GHG emissions, as electric landscaping equipment would not generate any GHG emissions at the point of use.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold GHG-1 would be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

GHG-2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? *[GPU PEIR Impact 5.7-2]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

The analysis of Impact 5.7-2 of the GPU PEIR acknowledged that the GPU includes goals and policies that were adopted for the purpose of reducing GHG emissions, including those that (1) would help reduce GHG emissions and achieve GHG reduction goals, (2) target transportation management and land use planning that would result in VMT reduction throughout the City, and (3) support sustainable practices that would encourage the use of renewable energy sources and reduction in energy consumption. Accordingly, the GPU PEIR concluded that the GPU would not obstruct implementation of the CARB Scoping Plan, SCAG Connect SoCal, the City's CAP, and, as such, impacts would be less than significant.

Proposed Project Impact Analysis

Since the certification of the GPU Final PEIR, CARB has adopted the 2022 Scoping Plan. As discussed above, although SCAG has adopted Connect SoCal 2024, CARB has not certified it, and the GPU PEIR analyzed consistency with SCAG's Connect SoCal. Accordingly, the proposed project is evaluated for consistency with the CARB 2022 Scoping Plan, SCAG's Connect SoCal, and the City's GPU and CAP, as presented below.

Consistency with the 2022 Scoping Plan

The 2022 Scoping Plan identifies reduction measures necessary to achieve the goal of carbon neutrality by 2045 or earlier. Actions that reduce GHG emissions are identified for each AB 32 inventory sector. Provided in Table 4.5-4: Consistency with the 2022 Scoping Plan: AB 32 Inventory Sectors is an evaluation of applicable reduction actions/strategies by emissions source category to determine how the proposed project would be consistent with or exceed reduction actions/strategies outlined in the 2022 Scoping Plan.

Table 4.5-4: Consistency with the 2022 Scoping Plan: AB 32 Inventory Sectors

Actions and Strategies	Project Consistency Analysis
Smart Growth / Vehicles Miles Traveled (VMT)	
Reduce VMT per capita to 25 percent below 2019 levels by 2030, and 30 percent below 2019 levels by 2045	**Consistent**. The proposed project would install short- and long-term bicycle parking stalls and electric vehicle (EV) charging stations in accordance with Title 24 standards. Furthermore, the project site has two bus stops served by the Orange County Transportation Authority (OCTA). There is one bus stop along Sunflower Avenue, approximately 10 feet south, and another bus stop along Plaza Drive located on-site. Based on the City's Traffic Impact Study Guidelines, the proposed project is located within a Transit Priority Area (TPA), defined as an area that is located less than 0.5 mile from an existing High Quality Transit Area (HQTA). In addition, the proposed project is located within a Pedestrian Opportunity Zone and would develop sidewalks, pedestrian pathways, and a fitness loop to encourage pedestrian mobility to reduce overall VMT. Additionally, the land uses proposed by the project are consistent with the 2020-2045 RTP/SCS vision of an urban, mixed used development, which would reduce overall VMT, as analyzed further in Table 4.5-5: Consistency with Connect SoCal, below. As such, the proposed project would encourage alternative modes of transportation and would include land uses that would reduce total VMT. Thus, the proposed project would be consistent with the action.
New Residential and Commercial Buildings	
All electric appliances beginning 2026 (residential) and 2029 (commercial), contributing to 6 million heat pumps installed Statewide by 2030	**Consistent.** The City of Santa Ana has not adopted an ordinance or program requiring the use of all electric appliances in new developments. Additionally, the City also does not have any regulation that requires an all-electric development. However, the proposed project would not be operational until approximately 2029, and thus, if regulations related to all electric development are adopted in the future (i.e., 2026 for residential and 2029 for commercial), the proposed project would comply with such regulations. Furthermore, the proposed project would comply with Title 24 standards to reduce energy consumption. As such, the proposed project would be consistent with this action.
Construction Equipment	
Achieve 25 percent of energy demand electrified by 2030 and 75 percent electrified by 2045	**Consistent.** The City of Santa Ana has not adopted an ordinance or program requiring electricity-powered construction equipment. However, the proposed project would be required to use construction equipment that are registered by CARB and that meet CARB's standards. As CARB sets its standards to be in line with the goal of reducing energy demand by 25 percent in 2030 and 75 percent by 2045, the proposed project would be consistent with this action.
Non-Combustion Methane Emissions	
Divert 75 percent of organic waste from landfills by 2025	**Consistent**. SB 1383 establishes targets to achieve a 50-percent reduction in the level of Statewide organic waste disposal from 2014 levels by 2020 and a 75-percent reduction by 2025. The law establishes an additional target that not less than 20 percent of currently disposed edible food is recovered for human consumption by 2025. The proposed project would comply with local and regional regulations and recycle or compost 75 percent of waste by 2025 pursuant to SB 1383. As such, the proposed project would be consistent with this action.

Source: California Air Resources Board, 2022, 2022 Scoping Plan, available at: https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf.

2022 Scoping Plan Appendix D, Local Actions

The 2022 Scoping Plan includes a set of Local Actions set forth in Appendix D to the 2022 Scoping Plan, which aim at providing local jurisdictions with tools to reduce GHG emissions in order to assist the State in reaching the reduction targets set forth in the 2022 Scoping Plan. Appendix D to the 2022 Scoping Plan includes a section for evaluating plan-level and project-level alignment with the State's Climate Goals within CEQA GHG analysis. Within this section, CARB identifies multiple recommendations and strategies that should be considered for new development in order to demonstrate consistency with the 2022 Scoping Plan. Specifically, this section is focused on strategies for residential and mixed-use projects. The document is organized into two categories: examples of plan-level GHG reduction actions that could be implemented by local governments and examples of onsite project design features and mitigation measures that could be applied to individual projects under CEQA.

Appendix D notes that residential and mixed-use projects that meet the following three priority areas are clearly consistent with the State's goals and would accommodate growth in a manner which is consistent with the State's GHG reduction and equity prioritization goals.

Transportation Electrification. Table 3 in Appendix D to the 2022 Scoping Plan notes that to be consistent with the State's goals, projects should provide EV charging infrastructure that, at a minimum, meets the most ambitious voluntary standard in the CALGreen code. As previously noted, the proposed project would provide EV charging stations in accordance with Title 24 standards and CALGreen code. Therefore, the project is consistent with this strategy.

VMT Reduction. The 2022 Scoping Plan notes that to be consistent with the VMT reduction strategy, projects should be located on infill sites that are surrounded by existing urban uses and reuses or redevelops previously undeveloped or underutilized land that is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer); do not result in the loss or conversion of natural and working lands; and consist of transit-supportive densities (a minimum of 20 residential dwelling units per acre). The proposed project would construct a mix of residential and commercial uses with a density of approximately 92 dwelling units per acre and a floor area ratio of approximately 2.98 (approximately 1,850,000 square feet of residential building space, 80,000 square feet of retail space, and 300,000 square feet of office space on a 17.2-acre site). The project site is also surrounded by commercial and multi-family residential uses, and the project, which proposes a mixed-use community that would include mixed-use commercial and residential, residential only, and commercial only buildings, would connect the surrounding properties through the proposed pedestrian, bicycle, and vehicular network. Additionally, the proposed project would not introduce any new roadways that would bisect existing communities or neighborhoods. Therefore, the proposed project would not physically divide an established community and would be consistent with this strategy.

Building Decarbonization. Building decarbonization involves maximizing energy efficiency and eliminating the use of fossil fuel consumption. The proposed project would be required to comply with the most current and applicable Title 24 standards and CALGreen Code, including providing on-site energy generation through the use of solar photovoltaic panels, which would help reduce the demand for electricity produced by Southern California Edison and reduce GHG emissions. Further, the proposed project would also implement energy conservation strategies including those related to the installation of high efficiency lighting, water efficient landscaping, and low-flow water fixtures. Therefore, the proposed project would be developed in a manner that promotes energy efficiency and minimizes the reliance on fossil fuels.

As such, the proposed project would implement key residential and mixed-use project attributes included in Appendix D and would be consistent with the actions and strategies set forth in Appendix D of the 2022 Scoping Plan. Therefore, the proposed project would be consistent with the 2022 Scoping Plan and the State's GHG reduction goals.

Consistency with the SCAG 2020-2045 RTP/SCS

Table 4.5-5: Consistency with Connect SoCal provides a consistency analysis of the proposed project with the five key SCS strategies identified in the regulatory framework discussion above. As shown therein, the proposed project would be consistent with the GHG emission reduction strategies contained in Connect SoCal.

Table 4.5-5: Consistency with Connect SoCal

Reduction Strategy	Applicable Land Use Tools	Project Consistency Analysis
Focus Growth Near Destinations and Mobility Options		
• Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations • Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets • Plan for growth near transit investments and support implementation of first/last mile strategies • Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses • Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods • Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations) • Identify ways to "right size" parking requirements and promote alternative parking strategies (e.g., shared parking or smart parking)	Center Focused Placemaking, Priority Growth Areas (PGA), Job Centers, High Quality Transit Areas (HQTAs), Transit Priority Areas (TPA), Neighborhood Mobility Areas (NMAs), Livable Corridors, Spheres of Influence, Green Region, Urban Greening.	**Consistent.** Transit Priority Areas (TPAs) are defined in the 0.5-mile radius around an existing or planned major transit stop or an existing stop in a HQTA. A HQTA is defined as an area with fixed route bus service frequency of 15 minutes (or less) during peak commute hours. The project site is located within an HQTA.[a] There are two bus stops served by the OCTA that are located in and immediately adjacent to the project site. There is one bus stop along Sunflower Avenue, approximately 10 feet south of the project site, and another bus stop is along Plaza Drive located on-site. The proposed project would provide jobs in proximity to housing to improve the jobs/housing balance and reduce commute times and distances. The proposed project would be located in an urbanized area and within walking and biking distance of existing residential and commercial uses and transit to support first/last mile strategies and reduce reliance on solo car trips to contribute to the reduction in VMT and associated GHG emissions. In addition, the proposed project would be located within a Pedestrian Opportunity Zone and would develop sidewalks, pedestrian pathways, and a fitness loop to encourage pedestrian mobility. The proposed project would also provide bicycle parking spaces and EV charging stations in accordance with the CALGreen Code. Additionally, the project proposes to construct a mixed-use development to revitalize the existing underperforming commercial uses on-site. Therefore, the proposed project would focus growth near destinations and mobility options. Thus, the proposed project would be consistent with this reduction strategy.

Table 4.5-5: Consistency with Connect SoCal

Reduction Strategy	Applicable Land Use Tools	Project Consistency Analysis
Promote Diverse Housing Choices		
• Preserve and rehabilitate affordable housing and prevent displacement • Identify funding opportunities for new workforce and affordable housing development • Create incentives and reduce regulatory barriers for building context sensitive accessory dwelling units to increase housing supply • Provide support to local jurisdictions to streamline and lessen barriers to housing development that supports reduction of greenhouse gas emissions	PGA, Job Centers, HQTAs, NMA, TPAs, Livable Corridors, Green Region, Urban Greening.	**Consistent.** The project site is currently developed with commercial retail uses. Therefore, the proposed project would not displace any residential uses and would create a balance of residential and commercial uses on-site allowing for new employment opportunities. Thus, the proposed project would increase housing supply in the City by constructing new residential units on-site. As such, the proposed project would be consistent with this reduction strategy.
Leverage Technology Innovations		
• Promote low emission technologies such as neighborhood electric vehicles, shared rides hailing, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedicated lanes, charging and parking/drop-off space • Improve access to services through technology—such as telework and telemedicine as well as other incentives such as a "mobility wallet," an app-based system for storing transit and other multi-modal payments • Identify ways to incorporate "micro-power grids" in communities, for example solar energy, hydrogen fuel cell power storage and power generation	HQTA, TPAs, NMA, Livable Corridors.	**Consistent.** The proposed project would install EV charging stations and bicycle parking spaces in accordance with the most current and applicable Title 24 standards, including the requirements of the CALGreen Code. The proposed project would also include on-site energy generation through the use of solar photovoltaic panels. Therefore, the proposed project would leverage technology innovations to promote the use of alternative modes of transportation, as well as contribute to the power grid to help the City, County, and State meet their GHG reduction goals. Therefore, the proposed project would be consistent with this reduction strategy.
Support Implementation of Sustainability Policies		
• Pursue funding opportunities to support local sustainable development implementation projects that reduce greenhouse gas emissions • Support statewide legislation that reduces barriers to new construction and that incentivizes development near transit corridors and stations • Support local jurisdictions in the establishment of Enhanced Infrastructure Financing Districts (EIFDs), Community Revitalization	Center Focused Placemaking, PGA, Job Centers, HQTAs, TPA, NMAs, Livable Corridors, Spheres of Influence, Green Region, Urban Greening.	**Consistent.** As previously discussed, the proposed project would install EV charging stations and provide bicycle parking spaces to promote alternative modes of transportation. Further, the proposed project would comply with the requirements of the most current and applicable Title 24 standards and California Building Codes, including those related to the installation of high efficiency lighting, water efficient landscaping, and low-flow water fixtures. In addition, the proposed project would be consistent with the vision of the GPU as relates to the South Bristol Street Focus Area and, as such, would support the City's long-range

Table 4.5-5: Consistency with Connect SoCal

Reduction Strategy	Applicable Land Use Tools	Project Consistency Analysis
and Investment Authorities (CRIAs), or other tax increment or value capture tools to finance sustainable infrastructure and development projects, including parks and open space • Work with local jurisdictions/communities to identify opportunities and assess barriers to implement sustainability strategies • Enhance partnerships with other planning organizations to promote resources and best practices in the SCAG region • Continue to support long range planning efforts by local jurisdictions • Provide educational opportunities to local decisions makers and staff on new tools, best practices and policies related to implementing the Sustainable Communities Strategy		planning efforts. Thus, the proposed project would be consistent with sustainability strategy.
Promote a Green Region		
• Support development of local climate adaptation and hazard mitigation plans, as well as project implementation that improves community resiliency to climate change and natural hazards • Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration • Integrate local food production into the regional landscape • Promote more resource efficient development focused on conservation, recycling and reclamation • Preserve, enhance and restore regional wildlife connectivity • Reduce consumption of resource areas, including agricultural land • Identify ways to improve access to public park space	Green Region, Urban Greening, Greenbelts and Community Separators.	**Consistent.** The proposed project involves an infill mixed-use development that would create a balance between residential and commercial uses in an urbanized area and would not interfere with regional wildlife connectivity or affect any agricultural land. The proposed project would be required to comply with the most current and applicable Title 24 standards and California Building Code, including providing on-site energy generation through the use of solar photovoltaic panels, which would help reduce the demand for electricity produced by Southern California Edison and reduce GHG emissions. In addition, the proposed project would include areas of active and passive open space to provide future residents, visitors, and employees of The Village access to new park space and gathering areas. Thus, the proposed project would support a resource efficient development that reduces energy consumption and GHG emissions. The proposed project would be consistent with this reduction strategy.

Note:

[a] Southern California Association of Governments, High Quality Transit Areas (HQTA) 2045 – SCAG Region, available at: https://rdp.scag.ca.gov/portal/home/item.html?id=9a84ba5df63e45a1bb904dc76bf59863, accessed February 2024.

Source: Southern California Association of Governments, 2020, 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy – Connect SoCal, available at: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176.

Consistency with the City of Santa Ana General Plan Update

The Conservation and Mobility Elements of the City's GPU contain various goals and policies aimed at reducing the health hazards from air pollution and VMT, reducing overall GHG emissions in the City, and minimizing the impacts of climate change. Table 4.5-6: Consistency with the Santa Ana General Plan Update provides a consistency analysis of the proposed project with applicable goals and policies. As shown therein, the proposed project would be consistent with the GHG emission reduction goals and policies contained in the City's GPU.

Table 4.5-6: Consistency with the Santa Ana General Plan Update

Goals and Policies	Project Consistency Analysis
Conservation Element	
Goal CN-1: Air Quality and Climate. Protect air resources, improve regional and local air quality, and minimize the impacts of climate change.	
Policy CN-1.2 Climate Action Plan. Consistency with emission reduction goals highlighted in the Climate Action Plan shall be considered in all major decisions on land use and investments in public infrastructure.	**Consistent**. The proposed project would be consistent with the goals listed in the Climate Action Plan; refer to the discussion below. As such, the proposed project is consistent with this policy.
Policy CN-1.4 Development Standards. Support new development that meets or exceeds standards for energy-efficient building design and site planning.	**Consistent.** The proposed project would meet or exceed the requirements of the most current and applicable Title 24 standards and California Building Code, including, but not limited to, those related to energy conservation, use of renewable energy, and the installation of EV charging stations. As such, the proposed project would be consistent with this policy.
Policy CN-1.6 New and Infill Residential Development. Promote development that is mixed-use, pedestrian- friendly, transit oriented, and clustered around activity centers.	**Consistent.** The proposed project would construct a mixed-use development that includes residential and commercial uses. The project proposes up to 1,583 residential dwelling units, commercial uses (restaurants, groceries, brewery, and other retail uses), and office space. The project site is located near the South Coast Plaza, which is an activity center, and other commercial uses that would encourage pedestrian activities. Additionally, two bus stops served by the OCTA are located on or immediately adjacent to the project site. As such, the proposed project would be consistent with this policy.
Policy CN-1.7 Housing and Employment Opportunities. Improve the City's jobs/housing balance ratio by supporting development that provides housing and employment opportunities to enable people to live and work in Santa Ana.	**Consistent.** The proposed project would involve the construction of a mixed-use development that would include up to 1,583 residential dwelling units and commercial uses that would introduce employment opportunities in the City. Accordingly, the proposed project would contribute to the improvement of the City's jobs/housing balance, enabling people to live and work in the City. As such, the proposed project would be consistent with this policy.
Policy CN-1.8 Promote Alternative Transportation. Promote use of alternate modes of transportation in the City of Santa Ana, including pedestrian, bicycling, public transportation, car sharing programs and emerging technologies.	**Consistent.** The proposed project would provide short- and long-term bicycle parking and would install EV charging stations in accordance with the requirements of the most current and applicable Title 24 standards and California Building Code. In addition, the proposed project is located within a Pedestrian Opportunity Zone and would develop sidewalks, pedestrian pathways, and a fitness loop to encourage pedestrian mobility. As previously discussed, two bus stops served by OCTA are located on or immediately adjacent to the project site, which would encourage the use of alternate modes of transportation. As such, the proposed project is consistent with this policy.
Policy CN-1.12 Sustainable Infrastructure. Encourage the use of	**Consistent.** The proposed project would incorporate features that would encourage the use of sustainable forms of transportation. As previously

Table 4.5-6: Consistency with the Santa Ana General Plan Update

Goals and Policies	Project Consistency Analysis
low or zero emission vehicles, bicycles, non- motorized vehicles, and car-sharing programs by supporting new and existing development that includes sustainable infrastructure and strategies such as vehicle charging stations, drop-off areas for ridesharing services, secure bicycle parking, and transportation demand management programs.	discussed, the project would provide short- and long-term bicycle parking spaces and EV charging stations. As such, the proposed project would be consistent with this policy.
Policy CN-1.17 Indoor Recreation. Encourage new development to provide indoor recreation space when located in areas with high levels of localized air pollution or if site is adjacent to freeways or heavy industrial uses.	**Consistent.** The proposed project is not located immediately adjacent to freeways or heavy industrial uses. Regardless, in addition to the open spaces (i.e., pocket parks, gathering areas, and fitness loop) and immersive garden landscaping proposed throughout the project site, the proposed project would provide indoor amenities, such as indoor fitness areas, coworking spaces, active spaces, and private rooms. As such, the project would provide indoor recreation space and would be consistent with this policy.
Policy CN-1.18 Public Investment in Parks. Coordinate with park renovation and new development to address air quality and climate impacts by reducing the heat island affect by providing green infrastructure and shade, and reducing air pollution by providing vegetation that removes pollutants and air particles.	**Consistent.** The proposed project would construct open spaces (i.e., pocket parks, gathering areas, and fitness loop) and incorporate immersive garden landscaping throughout the project site. In addition, the project would include trees for shade and landscaping between the parcels and along pathways, internal streets, Bear Street, South Plaza Drive, and Sunflower Avenue. Moreover, the project would reduce the amount of surface parking/paving on the site, and thus, reduce the heat island affect. As such, the proposed project would be consistent with this policy.
Goal CN-3: Energy Resources. Reduce consumption of and reliance on nonrenewable energy, and support the development and use of renewable energy sources.	
Policy CN-3.3 Development Patterns. Promote energy-efficient development patterns by clustering mixed use developments and compatible uses adjacent to public transportation.	**Consistent.** The project site is located within a Transit Priority Area (i.e., within 0.5-mile of existing or planned major transit stops). The project site is located in the GPU's designated Transit Opportunity Corridor. The OCTA provides public transit service to and from the project area, and operates one bus stop along the project site frontage on Sunflower Avenue, and another stop along South Plaza Drive, which bisects the site. Multiple bus stops are available within the vicinity of the project site that offer consistent headway to destinations throughout Orange County and beyond, including the following routes: Local Routes 55, 57, 76, 86; Community Route 150; and Bravo Limited Stop Service 553. Bus stops would continue to be provided but may be relocated along the project frontages as a part of the project in collaboration with OCTA. Therefore, the project's mixed use development would be clustered adjacent to public transportation, and the project would be consistent with this policy.
Policy CN-3.4 Site Design. Encourage site planning and subdivision design that incorporates the use of renewable energy systems.	**Consistent.** As discussed above, the proposed project would provide on-site energy generation through the use of solar photovoltaic panels. As such, the proposed project would incorporate the use of a renewable energy system and would be consistent with this policy.
Policy CN-3.5 Landscaping. Promote and encourage the planting of native and diverse tree species to improve air quality, reduce heat island effect, reduce energy consumption, and contribute to carbon mitigation with	**Consistent.** The proposed project would construct open spaces (i.e., pocket parks, gathering areas, and fitness loop) and incorporate immersive garden landscaping throughout the project site. Specifically, the project would have numerous planting zones that would use a variety of native trees, drought-tolerant plants, and shrubs. As such, the project would be consistent with this policy.

Table 4.5-6: Consistency with the Santa Ana General Plan Update

Goals and Policies	Project Consistency Analysis
special focus in environmental justice areas.	
Policy CN-3.7 Energy Conservation Design and Construction. Incorporate energy conservation features in the design of new construction and rehabilitation projects.	**Consistent.** The proposed project would meet or exceed the requirements of the most current and applicable Title 24 standards and California Building Code, including, but not limited to, those related to energy conservation, use of renewable energy, and the installation of EV charging stations. As such, the proposed project would be consistent with this policy.
Goal CN-4: Water Resources. Conserve and replenish existing and future water resources.	
Policy CN-4.1 Water Use. Encourage and educate residents, business owners, and operators of public facilities to use water wisely and efficiently.	**Consistent.** The proposed project would incorporate features that would reduce water usage. Specifically, the proposed project would include low-flow fixtures that would reduce excessive use of water throughout the project site, water efficient irrigation, native trees, and drought-tolerant plants. In addition, as discussed in Section 4.7, Hydrology and Water Quality, of this Supplemental EIR, the proposed project would incorporate bio-filtration boxes/planters or green roofs to capture and re-use rainwater for irrigation to conserve water. As such, the proposed project would be consistent with these policies.
Policy CN-4.2 Landscaping. Encourage public and private property owners to plant native or drought-tolerant vegetation.	
Policy CN-4.4 Irrigation Systems. Promote irrigation and rainwater capture systems that conserve water to support a sustainable community.	
Mobility Element	
Goal M-5: Sustainable Transportation Design. A transportation system that is attractive, safe, state-of-the-art, and supports community, environmental, and conservation goals.	
Policy M-5.6 Clean Fuels and Vehicles. Encourage the use of alternative fuel vehicles and mobility technologies through the installation of supporting infrastructure.	**Consistent.** The proposed project would install EV charging stations in accordance with the requirements of the most current and applicable Title 24 standards and California Building Code. As such, the proposed project would be consistent with this policy.

Source: City of Santa Ana, 2022, Santa Ana General Plan Update, available at: https://general-plan-santa-ana-ca.proudcity.com/.

Consistency with the City of Santa Ana Climate Action Plan

As identified in the regulatory framework discussion above, the City's CAP recommends several measures that would achieve GHG reductions, including installation of solar photovoltaic systems and compliance with Title 24 energy efficiency standards. Table 4.5-7: Consistency with the Santa Ana Climate Action Plan provides a consistency analysis of the proposed project with applicable goals of the City's CAP. As shown therein, the proposed project would be consistent with the GHG emission reduction goals contained in the City's CAP.

Table 4.5-7: Consistency with the Santa Ana Climate Action Plan

Measures	Project Consistency Analysis
Transportation and Land Use Measures	
Development of Local Retail Service Nodes	**Consistent**. According to the City's CAP, development that provides a mix of housing, commercial space, services, and job opportunities near public

Table 4.5-7: Consistency with the Santa Ana Climate Action Plan

Measures	Project Consistency Analysis
Local Residential Nodes near Retail and Employment	transit would reduce dependency on automotive travel. The proposed project would redevelop an approximately 17.2-acre site with a mix of mixed-use commercial and residential, commercial only, and residential only uses. As previously discussed, two bus stops served by the OCTA are located on or immediately adjacent to the project site. Additionally, the proposed project is located within a Pedestrian Opportunity Zone and would construct a Fitness Loop that would promote pedestrian travel. The project would also construct a network of bikeways to and from the project site. As such, the proposed project would construct a variety of commercial and retail uses (i.e., offices, restaurants, groceries, brewery, and other retail uses) near housing. Therefore, the proposed project would develop local retail service and residential uses near retail and employment and provide local employment near residential and retail areas and, thus, be consistent with these goals.
Local Employment Nodes near Residential and Retail Areas	
End-of-trip Facilities in New Projects	**Consistent.** According to the City's CAP, end-of-trip facilities include bike lockers, showers and changing rooms that would be used by cyclists. Installation of these end-of-trip facilities would encourage the use of bicycles as a form of transportation. The proposed project would construct a network of bikeways that provides access to and from the project site and for internal circulation. In addition, the proposed project would consist of a mix of mixed-use commercial and residential, commercial only, and residential only uses, all of which would have bicycle parking in accordance with the most current and applicable CALGreen Code requirements. As stated in the City's CAP, the City will amend its Municipal Code to require the placement of end-of-trip facilities in new office and larger retail buildings; following the City's amendment, the proposed project would implement end-of-trip facilities, as required. As such, the proposed project would be consistent with this goal.
Design Guidelines for External Bike/Pedestrian/Transit Connectivity	**Consistent.** The proposed project would redevelop an approximately 17.2-acre site with a mix of land uses and would be constructed to promote internal and external connectivity for pedestrians, cyclists, and automotive travel. As previously discussed, the proposed project is located in a Pedestrian Opportunity Zone that promotes the use of pedestrian travel as a form of mobility. The proposed development would contain sidewalks, which would provide external and internal access to the project site. Additionally, the proposed project would construct pedestrian paths for internal connectivity, which would lead to the central commercial area. Lastly, the proposed project would construct a Fitness Loop that would function as a recreational amenity and as a functional pedestrian path for internal and external connectivity. In additional to pedestrian travel, the proposed project would construct a network of bikeways that provides access to and from the project site and for internal circulation. For automotive travel, the proposed project would connect with existing public roadways and construct a new internal network of private streets. As such, the proposed project would be consistent with these goals.
Design Guidelines for Internal Bike/Pedestrian/Transit Connectivity	
Adjust Parking Ratios	**Consistent.** The proposed project would provide approximately 3,278 parking spaces in the tower and podium buildings and in subterranean parking levels. The proposed project would provide parking in accordance with The Village Santa Ana Specific Plan. Future developments within the Specific Plan could include shared, joint, or reciprocal parking between uses or buildings if approved by the Planning Manager. As such, the proposed project would be consistent with this goal.

Table 4.5-7: Consistency with the Santa Ana Climate Action Plan

Measures	Project Consistency Analysis
Community-wide Energy Measures	
Property Assessed Clean Energy (PACE) Financing for Commercial Properties	**Consistent.** As discussed in the City's CAP, PACE is an energy efficiency financing program that promotes the implementation of energy efficient features and renewable energy generation by providing financing opportunities for commercial property owners. The proposed project would meet or exceed the requirements of the most current and applicable Title 24 standards, which include energy efficiency standards. As such, development of the proposed project could utilize PACE financing to help implement the energy efficiency standards as required in the most current and applicable Title 24 standards. Therefore, the proposed project would be consistent with this goal.
Property Assessed Clean Energy Financing for Residential Properties	
Solar Photovoltaic Systems – New Private Installs	**Consistent.** As discussed above, the proposed project would provide on-site energy generation through the use of solar photovoltaic panels. As such, the proposed project would be consistent with this goal.
Southern California Edison and Southern California Gas Company Residential Programs	**Consistent.** As discussed in the City's CAP, these programs would promote the installation of energy efficient appliances by providing rebate opportunities for residential customers. Rebate opportunities provide an incentive for residents in the Village Santa Ana Specific Plan area to install energy efficient appliances, reducing energy usage. As such, the proposed project would be consistent with this goal.
Title 24 Energy Efficiency Standards – Commercial	**Consistent.** The proposed project would redevelop an approximately 17.2-acre site with a mix of commercial and residential, commercial only, and residential only uses. As previously discussed, the proposed development would meet or exceed the requirements of the most current and applicable Title 24 standards. As such, the proposed project would be consistent with this goal.
Title 24 Energy Efficiency Standards – Residential	
Solid Waste, Water, and Wastewater Measures	
AB 341 Commercial and Multifamily Recycling	**Consistent.** The proposed project would implement a recycling system in accordance with State and local regulations, including the mandatory commercial recycling under AB 341. Additionally, the proposed project would comply with SB 1383, which aims to recycle or compost 75 percent of waste by 2025. As such, the proposed project would be consistent with this goal.
Food Waste Digestion	**Consistent.** As discussed in Table 4.5-4: Consistency with the 2022 Scoping Plan: AB 32 Inventory Sectors, SB 1383 establishes targets to achieve a 50-percent reduction in the level of Statewide organic waste disposal from 2014 levels by 2020 and a 75-percent reduction by 2025. The law establishes an additional target that not less than 20 percent of currently disposed edible food is recovered for human consumption by 2025. The proposed project would comply with local and regional regulations and recycle or compost 75 percent of waste by 2025 pursuant to SB 1383. As such, the proposed project would be consistent with this goal.
Rainwater Harvesting	**Consistent.** As previously discussed, the proposed project would incorporate bio-filtration boxes/planters or green roofs to capture and re-use rainwater for irrigation to conserve water. As such, the proposed project would be consistent with this goal.
Turf Removal	**Consistent.** As discussed in the City's CAP, natural turf is one of the most water-intensive features of landscaping. The removal of natural turf would help reduce overall water consumption in the City. As discussed, the proposed project would incorporate water efficient irrigation, native trees,

Table 4.5-7: Consistency with the Santa Ana Climate Action Plan

Measures	Project Consistency Analysis
	and drought-tolerant plants in their landscaping plans. As such, the proposed project would be consistent with this goal.

Source: City of Santa Ana, 2015, Santa Ana Climate Action Plan, available at: https://storage.googleapis.com/proudcity/santaanaca/uploads/2022/03/Climate-Action-Plan.pdf.

Conclusion

In summary, the proposed project's characteristics render it consistent with Statewide, regional, and local climate change mandates, plans, policies, and recommendations. More specifically, the GHG plan consistency analysis provided above demonstrates that the proposed project would comply with the regulations and GHG reduction goals, policies, actions, and strategies outlined in the 2022 Scoping Plan, 2020-2045 RTP/SCS, and the City's GPU and CAP. Consistency with these plans would reduce the impact of the proposed project's incremental contribution to GHG emissions. Accordingly, the proposed project would not conflict with any applicable plan, policy, regulation, or recommendation adopted for the purpose of reducing GHG emissions.

Further, the project would redevelop the underutilized and currently vehicle-centric site by introducing a mixed-use development within a Pedestrian Opportunity Zone and would develop sidewalks, pedestrian pathways, and a fitness loop to encourage pedestrian mobility to reduce overall VMT compared to the existing conditions. The project would also feature vehicle parking spaces equipped with EV charging stations in accordance with Title 24 and City requirements.

As with the GPU PEIR, impacts related to GHG emissions resulting from the proposed project would be the same as the impacts disclosed for the buildout of the GPU, which were determined to be less than significant.

For the reasons aforementioned, the proposed project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis, or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold GHG-2 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold GHG-2 would be less than significant. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

4.5.6 CUMULATIVE IMPACTS

IMPACT ANALYSIS

GPU PEIR Impact Summary

The GPU PEIR states because no single plan is large enough to result in a measurable increase in global concentrations of GHGs, climate change impacts are considered on a cumulative basis. According to the GPU PEIR, the extent of analysis of cumulative impacts for GHGs is based on

the sectors in the Scoping Plan emissions in California. As no additional statewide measures are currently available to meet the state's 2050 GHG reduction goal, the GPU PEIR concluded impacts related to the generation of GHGs would be significant and unavoidable. Regarding consistency with an applicable GHG plan, the GPU PEIR concluded impacts would be less than significant.

Proposed Project Impact Analysis

The cumulative scenario for climate change impacts is not defined by a geographical boundary (e.g., project site, city, or air basin), but by a global context because of the global nature of GHGs. However, as CEQA only applies to the State of California, the geographical area for analysis of cumulative GHG emissions impacts is California.

As discussed in Section 4.5.1, Regulatory Framework, above, AB 32 recognizes that California is the source of substantial amounts of GHG emissions. AB 32 states the following:

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

As such, AB 32 recognizes the significance of the Statewide cumulative impact of GHG emissions from sources throughout the State and sets a performance standard for mitigation of the cumulative impact.

As noted above in Section 4.5.4 Methodology, individual projects do not generate sufficient GHG emissions to directly influence climate change and, thus, the analysis of a project's GHG emission impacts is inherently a cumulative impact analysis—i.e., whether the project would have a cumulatively considerable contribution to global GHG emissions impacts. State CEQA Guidelines Section 15183.5(b) states that compliance with GHG related plans can support a determination that a project's cumulative effect is not cumulatively considerable. As concluded in Section 4.5.5 Project Impacts, above, the project would be consistent with the 2022 Scoping Plan, the 2020-2045 RTP/SCS, the City of Santa Ana General Plan, and the City's CAP. As the proposed project is consistent with these GHG reduction plans, the proposed project would also be consistent with the State's long-term goal to achieve carbon neutrality (zero-net emissions). Impacts related to the generation of GHGs and consistency with an applicable GHG plan would be less than significant. Therefore, the proposed project's contribution to cumulative impacts related to GHGs would not be cumulatively considerable, and therefore, would be less than significant.

MITIGATION MEASURES

Cumulative impacts related to GHG emissions would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Cumulative impacts related to GHG emissions were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

4.6 HAZARDS AND HAZARDOUS MATERIALS

This section analyzes the project's potential hazards and hazardous materials impacts that could occur during the project's construction and operation and identifies the ways that hazardous materials and other types of hazards could expose people and the environment to various health and safety risks during project implementation. As the project pursues buildout of part of the City's GPU Land Use Plan, which was analyzed in the GPU PEIR, this section compares the project's impacts with the impacts identified in the GPU PEIR. The analysis is based, in part, on the Phase I Environmental Site Assessment (Phase I ESA) prepared for the project by TRC Environmental Corporation (TRC) (February 25, 2022), which is included as Appendix E.

4.6.1 REGULATORY FRAMEWORK

FEDERAL

Resource Conservation and Recovery Act

Federal hazardous waste regulations are generally promulgated under the Resource Conservation and Recovery Act (RCRA) (42 U.S.C. § 6901 et seq.). Pursuant to RCRA, the United States Environmental Protection Agency (USEPA) regulates the generation, transportation, treatment, storage, and disposal of hazardous waste in a "cradle to grave" manner. RCRA was designed to protect human health and the environment, reduce/eliminate the generation of hazardous waste, and conserve energy and natural resources.

The Hazardous and Solid Waste Amendments of 1984 both expanded the scope of RCRA and increased the level of detail in many of its provisions, reaffirming the regulation from generation to disposal and to prohibiting the use of certain techniques for hazardous waste disposal. The USEPA has largely delegated responsibility for implementing the RCRA program in California to the State, which implements this program through the California Hazardous Waste Control Law.

RCRA regulates landfill siting, design, operation, and closure (including identifying liner and capping requirements) for licensed landfills. In California, RCRA landfill requirements are delegated to the California Department of Resources Recycling and Recovery, which is discussed in detail below. RCRA allows the USEPA to oversee the closure and post-closure of landfills.

RCRA also allows the USEPA to control risk to human health at contaminated sites. Vapor intrusion may present significant risk to human populations overlying contaminated soil and groundwater and is considered when conducting human health risk assessments and developing Remedial Action Objectives.

Occupational Safety and Health Act of 1970

Federal and state occupational health and safety regulations also contain provisions regarding hazardous waste management through the Occupational Safety and Health Act of 1970 (amended), which is implemented by Occupational Safety and Health Administration (OSHA). As set forth in Title 29 of the Code of Federal Regulations (CFR) Section 1910, et. seq., requires special training of handlers of hazardous materials; notification to employees who work in the vicinity of hazardous materials; acquisition from the manufacturer of material safety data sheets, which describe the proper use of hazardous materials; and training of employees to remediate any hazardous material accidental releases.

OSHA also establishes standards regarding safe exposure limits for chemicals to which construction workers may be exposed. Safety and Health Regulations for Construction (29 CFR Part 1926.65 Appendix C) contains requirements for construction activities, which include

occupational health and environmental controls to protect worker health and safety. The guidelines describe the health and safety plan(s) that must be developed and implemented during construction, including associated training, protective equipment, evacuation plans, chains of command, and emergency response procedures.

Adherence to applicable hazard-specific OSHA standards is required to maintain worker safety. For example, methane is regulated by OSHA under 29 CFR Part 1910.146 with regard to worker exposure to a "hazardous atmosphere" within confined spaces where the presence of flammable gas vapor or mist is in excess of 10 percent of the lower explosive limit. Title 49 of the CFR governs the manufacture of packaging and transport containers, packing and repacking, labeling, and the marking of hazardous material transport. Title 42, Part 82 governs solid waste disposal and resource recovery.

Hazardous Materials Transportation Act

The transportation of hazardous materials is regulated by the Hazardous Materials Transportation Act, which is administered by the Research and Special Programs Administration (RSPA) of the U.S. Department of Transportation (USDOT). As set forth in 49 USC Section 5101, et seq., the Hazardous Materials Transportation Act provides USDOT with a broad mandate to regulate the transport of hazardous materials, with the purpose of adequately protecting the nation against risk to life and property, which is inherent in the commercial transportation of hazardous materials. The Hazardous Materials Transportation Act governs the safe transportation of hazardous materials by all modes, excluding bulk transportation by water. The RSPA carries out these responsibilities by prescribing regulations and managing a user-funded grant program for planning and training grants for states and Indian tribes. USDOT regulations that govern the transportation of hazardous materials are applicable to any person who transports, ships, causes to be transported or shipped, or are involved in any way with the manufacture or testing of hazardous materials packaging or containers. USDOT regulations pertaining to the actual movement govern every aspect of the movement, including packaging, handling, labeling, marking, placarding, operational standards, and highway routing. Additionally, USDOT is responsible for developing curriculum to train for emergency response and administers grants to states and Indian tribes for ensuring the proper training of emergency responders. Hazardous Materials Transportation Act was enacted in 1975 and was amended and reauthorized in 1990, 1994, and 2005.

Title 49 of the Code of Federal Regulations, Part 77

The Federal Aviation Agency (FAA) is the federal agency that identifies potential impacts related to air traffic and related safety hazards. Title 49 of the CFR Part 77 establishes standards and notification requirements for objects affecting navigable airspace. This notification serves as the basis for:

- Evaluating the effect of the proposed construction or alteration on operating procedures,
- Determining the potential hazardous effect of the proposed construction on air navigation,
- Identifying mitigating measures to enhance safe air navigation, and
- Charting of new obstructions.

FAA Federal Aviation Regulations (FAR) Part 77 includes the establishment of imaginary surfaces (airspace that provides clearance from obstacles for runway operations) that allows the FAA to identify potential aeronautical hazards, and prevent or minimize adverse impacts to the safe and efficient use of navigable airspace. Objects that are 200 feet above ground level or that may penetrate the imaginary surface surrounding SNA require notification to FAA via the submission

of a Form 7460-1 Notice of Proposed Construction or Alteration so that the FAA can conduct an aeronautical study. Through its aeronautical study, the FAA will determine if an object is considered an obstruction or a hazard to air navigation and may recommend lighting or other mitigating factors.

STATE

Hazardous Materials Management and Waste Handling

In the regulation of hazardous waste management, California law often mirrors or is more stringent than federal law. The California Environmental Protection Agency (CalEPA) and California Occupational Safety and Health Administration (CalOSHA) are the primary state agencies responsible for hazardous materials management. Additionally, the California Emergency Management Agency administers the California Accidental Release Prevention program. The California Department of Toxic Substances Control (DTSC), which is a branch of CalEPA, regulates the generation, transportation, treatment, storage, and disposal hazardous waste, as well as the investigation and remediation of hazardous waste sites. The California DTSC program incorporates the provisions of both federal (RCRA) and state hazardous waste laws.

Excavated soil containing hazardous substances and hazardous building materials would be classified as a hazardous waste if they exhibit the characteristics of ignitability, corrosivity, reactivity, or toxicity (California Code of Regulations [CCR], Title 22, Division 4.5, Chapter 11, Article 3). State and federal laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and in the event that such materials are accidentally released, to prevent or to mitigate injury to health or the environment. These laws and regulations are overseen by a variety of state and local agencies. The California Integrated Waste Management Board and the State Water Resources Control Board (SWRCB) specifically address management of hazardous materials and waste handling in their adopted regulations (CCR, Title 14 and CCR, Title 27).

In Orange County (including the City of Santa Ana), the Orange County Health Care Agency Environmental Health Division is designated as the Certified Unified Program Agency responsible for implementing the following program elements:

- Hazardous Materials Disclosure Programs;
- Business Emergency Plans;
- Underground Storage Tanks;
- Hazardous Materials Release Response Plans and Inventory Program (Hazardous Materials Disclosure or “Community-Right-to Know”);
- California Accidental Release Prevention Program; and
- Uniform Fire Code Plans and Inventory Requirements.

The laws and regulations that established these programs require that businesses that use or store certain quantities of hazardous materials submit a Hazardous Materials Business Plan (HMBP) that describes the hazardous materials usage, storage, and disposal to the local oversight agency Certified Unified Program Agency.

Hazardous Waste Control Act

The Hazardous Waste Control Act was passed in 1972 and established the California Hazardous Waste Control Program within the Department of Health Services. California’s hazardous waste

regulatory effort became the model for the Federal Resource Conservation and Recovery Act (RCRA). California's program, however, was broader and more comprehensive than the federal system, regulating wastes and activities not covered by the federal program. California's Hazardous Waste Control Law was followed by emergency regulations in 1973 that clarified and defined the hazardous waste program, as follows (22 CCR Division 4.5):

- Included definitions of what was a waste and what was hazardous as well as what was necessary for appropriate handling, processing, and disposal of hazardous and extremely hazardous waste in a manner that would protect the public, livestock, and wildlife from hazards to health and safety.
- The early regulations also established a tracking system for the handling and transportation of hazardous waste from the point of waste generation to the point of ultimate disposition, as well as a system of fees to cover the costs of operating the hazardous waste management program.
- Advancing the newly developing awareness of hazardous waste management issues, the program established a technical reference center for public and private use dealing with all aspects of hazardous waste management.

California Government Code Section 65962.5 (a), Cortese List

The Hazardous Waste and Substance Sites List (Cortese List) is a planning document used by the state, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to develop at least annually an updated Cortese List. The Department of Toxic Substances Control is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information for the Cortese List.

Title 22 of the California Code of Regulations and Hazardous Waste Control Law, Chapter 6.5

The Department of Toxic Substances Control regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under RCRA and the California Hazardous Waste Control Law. Both laws impose "cradle-to-grave" regulatory systems for handling hazardous waste in a manner that protects human health and the environment. CalEPA has delegated some of its authority under the Hazardous Waste Control Law to county health departments and other Certified Unified Program Agencies.

Title 23, Division 3, Chapter 16 of the California Code of Regulations, Underground Storage Tank Regulations

The Title 23, Division 3, Chapter 16 regulations are intended to protect waters of the state from discharges of hazardous substances from underground storage tanks. These regulations establish construction requirements for new underground storage tanks; establish separate monitoring requirements for new and existing underground storage tanks; establish uniform requirements for unauthorized release reporting, and for repair, upgrade, and closure of underground storage tanks.

Title 27 of the California Code of Regulations, Solid Waste

Title 27 of the California Code of Regulations contains a waste classification system that applies to solid wastes that cannot be discharged directly or indirectly to waters of the state and which

therefore must be discharged to waste management sites for treatment, storage, or disposal. California Department of Resources Recycling and Recovery and its certified Local Enforcement Agency regulate the operation, inspection, permitting, and oversight of maintenance activities at active and closed solid waste management sites and operations.

California Human Health Screening Levels

The California Human Health Screening Levels (CHHSLs or "Chisels") are concentrations of 54 hazardous chemicals in soil or soil gas that CalEPA considers to be below thresholds of concern for risks to human health. The CHHSLs were developed by the Office of Environmental Health Hazard Assessment on behalf of CalEPA. The CHHSLs were developed using standard exposure assumptions and chemical toxicity values published by the USEPA and CalEPA. The CHHSLs can be used to screen sites for potential human health concerns where releases of hazardous chemicals to soils have occurred. Under most circumstances, the presence of a chemical in soil, soil gas, or indoor air at concentrations below the corresponding CHHSL can be assumed to not pose a significant health risk to people who may live or work at the site. There are separate CHHSLs for residential and commercial/industrial sites.

Occupational Safety: Title 8 – California Occupational Safety and Health Administration

CalOSHA administers federal occupational safety requirements and additional state requirements in accordance with California Code of Regulations Title 8. CalOSHA requires preparation of an Injury and Illness Prevention Program, which is an employee safety program of inspections, procedures to correct unsafe conditions, employee training, and occupational safety communication. This program is administered via inspections by the local CalOSHA enforcement unit.

CalOSHA regulates asbestos exposure during construction activities under CCR Title 8, Section 1529, which establishes the rules and procedures for conducting demolition and construction activities such that worker exposure to asbestos is assessed, monitored, minimized or avoided.

CalOSHA regulates lead exposure during construction activities under CCR Title 8, Section 1532.1, which establishes the rules and procedures for conducting demolition and construction activities such that worker exposure to lead contamination is minimized or avoided.

Compliance with CalOSHA regulations and associated programs would be required for the proposed Project due to the potential hazards posed by onsite construction activities and contamination from former uses.

Hazardous Materials Business Plans

Article 1 of Chapter 6.95 of the California Health and Safety Code (Sections 25500–25520) requires that any business that handles, stores, or disposes of a hazardous substance at a given threshold quantity must prepare a hazardous materials business plan (HMBP). HMBPs are intended to minimize hazards to human health and the environment from fires, explosions, or an unplanned release of hazardous substances into air, soil, or surface water. The HMBP must be carried out immediately whenever a fire, explosion, or unplanned chemical release occurs.

An HMBP includes three sections: (1) an inventory of hazardous materials, including a site map that details their location; (2) an emergency response plan; and (3) an employee-training program. HMBPs serve as an aid to employers and employees in managing emergencies at a given facility. They also help better prepare emergency response personnel for handling a wide range of emergencies that might occur at the facility.

Emergency Response to Hazardous Materials Incidents

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local government, and private agencies. The plan is administered by the California Emergency Management Agency and includes response to hazardous materials incidents. The California Emergency Management Agency coordinates the response of other agencies, including CalEPA, California Highway Patrol, California Department of Fish and Wildlife, Regional Water Quality Control Board, South Coast Air Quality Management District, County Fire Department, and the County Health Department.

California Emergency Services Act

The California Emergency Services Act (Government Code Section 8550 et seq.) was adopted to establish the State's roles and responsibilities during human-made or natural emergencies that result in conditions of disaster and/or extreme peril to life, property, or the resources of the State. This act is intended to protect health and safety by preserving the lives and property of the people of the State.

LOCAL

South Coast Air Quality Management District Rule 1403

SCAQMD Rule 1403 governs the demolition of buildings containing asbestos materials. Rule 1403 specifies work practices to minimize asbestos emissions during building demolition and renovation activities, including the removal and associated disturbance of asbestos containing materials. The requirements for demolition and renovation activities include asbestos surveying, notification, asbestos containing materials removal procedures and time schedules, handling and cleanup procedures, storage, and disposal requirements for asbestos containing waste materials.

Emergency Response

The City of Santa Ana has its own Police Department and contracts with the Orange County Fire Authority, Orange County Emergency Management Division, Santa Ana Unified School District, the American Red Cross, and other county departments and agencies and surrounding cities for coordination of emergency response to the City. The Standardized Emergency Management System is required under Government Code Section 8607(a) for managing responses to multiagency and multi-jurisdiction emergencies in the State. The Standardized Emergency Management System was established to standardize key elements of the emergency management system, so that mobilization, deployment, utilization, tracking, and demobilization of mutual aid resources are implemented effectively. Mutual aid is voluntary aid and assistance by the provision of services and facilities, including fire, sheriff, medical, health, communication, transportation, and utilities.

The City's Emergency Operations Center (EOC) is the facility where representatives of all City departments and key external agencies collaborate to coordinate and manage the City' s response to a large-scale emergency or disaster event. The EOC is operated by the Director of Emergency Services/EOC Director, emergency management staff, and all departments and organizations with emergency responsibilities. The EOC serves as a central location of authority and information, allowing for direct coordination between staff for emergency decision making and the facilitation of emergency response actions.[1]

[1] City of Santa Ana, 2024, Emergency Operations Plan – Part I Basic Plan, available at: https://publicdocs.santa-ana.org/WebLink/DocView.aspx?dbid=1&id=144886&page=20&cr=1.

California Public Utilities Code, Section 21676, Airport Land Use Commission and Airport Environs Land Use Plan for John Wayne Airport

As set forth in California Public Utilities Code, Section 21670, the purposes of airport land use commissions are to promote the overall goals and objectives of the California airport noise standards adopted pursuant to Section 21669 and to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses. Every county that has an airport served by a scheduled airline is required to establish an airport land use commission (ALUC). Each ALUC is required to prepare and adopt an Airport Land Use Plan for each of its airports within its jurisdiction and review the plans, regulations, and other actions of local agencies, land use developers, and airport operators.

Prior to the amendment of a general plan or specific plan, or the adoption or approval of a zoning ordinance or building regulation within the planning boundary established by the ALUC, the local agency first refers the proposed action to the ALUC. If the ALUC determines that the proposed action is inconsistent with the Airport Land Use Plan, the referring agency is notified. The local agency may, after a public hearing, propose to overrule the ALUC by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes described above.

At least 45 days prior to the decision to overrule the ALUC, the local agency governing body must provide the ALUC a copy of the proposed decision and findings. The ALUC may provide comments to the local agency governing body within 30 days of receiving the proposed decision and findings. If the ALUC's comments are not available within this time limit, the local agency governing body may act without them. The comments by the ALUC are advisory to the local agency governing body. The local agency governing body shall include comments from the ALUC in the public record of any final decision to overrule the ALUC, which may only be adopted by a two-thirds vote of the governing body.

John Wayne Airport (SNA) is within the oversight of the Orange County ALUC. As required, the ALUC has prepared the Airport Environs Land Use Plan (AELUP) for SNA (amended April 17, 2008). The AELUP intends "to safeguard the general welfare of the inhabitants within the vicinity of the airport and to ensure the continued operation of the airport. Specifically, the plan seeks to protect the public from the adverse effects of aircraft noise, to ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and to ensure that no structures or activities adversely affect navigable airspace."

Land uses within the AELUP planning area boundaries are required to conform to safety, noise, and height restrictions. Public Utilities Code Section 21675(c) requires establishing an airport influence area (AIA) as the planning area boundary affected by aircraft operations, within which proposed land use projects are to be referred to the ALUC for review. Generally, the furthest extent of the AIA encompasses the 60 community noise equivalent level (CNEL) contour and the FAR Part 77 Imaginary Obstruction Surfaces for the airport.

Building Height Restrictions: The FAA is responsible for protecting and preserving airspace from hazards to air navigation. FAR Part 77 defines the regulations and process for providing these protections and the standards used to determine obstructions to air navigation that may affect the safe and efficient use of navigable airspace. Generally, the regulation requires that notice be given to the FAA if there is a proposal to construct a structure that would exceed the 100:1 slope of an imaginary surface extending outward for 20,000 feet from the nearest runway at SNA or for any project that will be more than 200 feet in height above the ground level.

Airport Environs Land Use Plan Policies: The following policies in the ALUC AELUP are relevant to the proposed project:

Policy 3.2.1: Within the boundaries of the AIA, any land use may be found to be inconsistent with the AELUP which:

1. Places people so that they are affected adversely by aircraft noise,

2. Concentrates people in areas susceptible to aircraft accidents,

3. Permits structures of excessive height in areas which would affect adversely the continued operation of the airport, or

4. Permits activities or facilities that would affect adversely aeronautical operations.

Policy 3.2.6: Height Restriction Zone. Any object, which by reason of its height or location would interfere with the established, or planned, airport flight procedures, patterns, or navigational systems, is unacceptable. This will ensure the stability of local air transportation, as well as promote land uses that are compatible with the airport environs. Additionally, any object which rises above the height of surrounding development, or which is located in proximity to any of the various flight paths, must be clearly visible (marked or lighted according to FAA standards) during hours of twilight or darkness and must not threaten, endanger, or interfere with aeronautical operations.

Policy 3.2.7: Airspace/Airport Inconsistency. Any structure, either within or outside of the planning area, is inconsistent with this AELUP if it:

1. Is determined to be a "Hazard" by the FAA;

2. Would raise the ceiling or visibility minimums at an airport for an existing or planned instrument procedure (i.e., a procedure consistent with the FAA approved airport layout plan or a proposed procedure formally on file with the FAA);

3. Would result in a loss in airport utility, e.g., in a diminution of the established operational efficiency and capacity of the airport, such as by causing the usable length of the runway (s) to be reduced; or

4. Would conflict with the visual flight rules airspace used for the airport traffic pattern or enroute navigation to and from the airport.

Policy 3.3.6: A condition which may serve to mitigate a project/action and thus may permit the ALUC to make a finding of consistency includes written notification for occupants of residential and other noise sensitive land uses that states:

> “Notice of Airport in Vicinity. This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.”

City of Santa Ana General Plan Update

The City's GPU includes regulatory requirements (RR), goals, and policies related to hazards and hazardous materials. The following RRs and Community Element, Public Services Element, Noise Element and Safety Element goals and policies are applicable to the proposed project:

Regulatory Requirements

RR HAZ-1: Hazardous materials and hazardous wastes will be transported to and/or from projects developed under the General Plan Update in compliance with any applicable state and federal requirements, including the U.S. Department of Transportation regulations listed in the Code of Federal Regulations (Title 49, Hazardous Materials Transportation Act); California Department of Transportation standards; and the California Occupational Safety and Health Administration standards.

RR HAZ-2: Hazardous waste generation, transportation, treatment, storage, and disposal will be conducted in compliance with Subtitle C of the Resource Conservation and Recovery Act (Code of Federal Regulations, Title 40, Part 263), including the management of nonhazardous solid wastes and underground tanks storing petroleum and other hazardous substances. The projects developed under the General Plan Update will be designed and constructed in accordance with the regulations of the Orange County Health Care Agency, Environmental Health Division, which serves as the designated Certified Unified Program Agency.

RR HAZ-4: Demolition activities that have the potential to expose construction workers and/or the public to asbestos-containing materials or lead-based paint will be conducted in accordance with applicable regulations, including, but not limited to:

- South Coast Air Quality Management District's Rule 1403
- California Health and Safety Code (Section 39650 et seq.)
- California Code of Regulations (Title 8, Section 1529)
- California Occupational Safety and Health Administration regulations (California Code of Regulations, Title 8, Section 1529 [Asbestos] and Section 1532.1 [Lead])
- Code of Federal Regulations (Title 40, Part 61 [asbestos], Title 40, Part 763 [asbestos], and Title 29, Part 1926 [asbestos and lead])

RR HAZ-5: The removal of hazardous materials, such as polychlorinated biphenyls (PCBs), mercury-containing light ballast, and mold, will be completed in accordance with applicable regulations pursuant to 40 CFR 761 (PCBs), 40 CFR 273 (mercury-containing light ballast), and 29 CFR 1926 (molds) by workers with the hazardous waste operations and emergency response (HAZWOPER) training, as outlined in 29 CFR 1910.120 and 8 CCR 5192.

RR HAZ-6: New construction, excavations, and/or new utility lines within 10 feet or crossing existing high-pressure pipelines, natural gas/petroleum pipelines, or electrical lines greater than 60,000 volts will be designed and constructed in accordance with the California Code of Regulations (Title 8, Section 1541).

RR HAZ-7: Development will be designed and constructed in accordance with the airport environs land use plan for John Wayne Airport. Building height restrictions, as specified in the airport environs land use plan, would apply in the city.

Community Element

Goal CM-3 Active Living and Well-Being: Promote the health and wellness of all Santa Ana residents.

- *Policy CM-3.2 Healthy Neighborhoods:* Continue to support the creation of healthy neighborhoods by addressing public safety, land use conflicts, hazardous soil contamination, incompatible uses, and maintaining building code standards.

Public Services Element

Goal PS-2 Public Safety: Preserve a safe and secure environment for all people and property.

- *Policy PS-2.2 Code Compliance:* Require all development to comply with the provisions of the most recently adopted fire and building codes and maintain an ongoing fire inspection program to reduce fire hazards.

Noise Element

Goal N-3 Airport and Land Use Environs: Protect sensitive land uses from airport related noise impacts.

- *Policy N-3.1 Residential Development:* Residential development within the John Wayne Airport (SNA) 65 dB(A) CNEL Noise Contour or greater is not supported.
- *Policy N-3.2 Flight Paths:* Advocate that future flight path selection be directed away from existing noise sensitive land uses.
- *Policy N-3.3 Residential Mitigation:* Require all residential land uses in 60 dB(A) CNEL or 65 dB(A) CNEL Noise Contours to be sufficiently mitigated so as not to exceed an interior standard of 45 dB(A) CNEL.

Safety Element

Goal S-2 Hazardous Materials: Protect residents and environmental resources from contaminated hazardous material sites and minimize risks associated with the use, production, storage, transport, and disposal of hazardous materials.

- *Policy S-2.4 Planning and Remediation:* Determine the presence of hazardous materials and/or waste contamination prior to approval of new uses and require that appropriate measures be taken to protect the health and safety of site users and the community.
- *Policy S-3.2 Seismic and Geotechnical Standards:* Ensure that all new development abides by the current City and state seismic and geotechnical requirements and that projects located in areas with potential for geologic or seismic hazards prepare a hazards study.

Goal S-4 Aircraft Hazards: Protect the safety of the general public from aircraft hazards.

- *Policy S-4.1 Structures Above 200 Feet:* For development projects that include structures higher than 200 feet above existing grade, the City shall inform the ALUC and submit materials to the ALUC for review. Proposed projects that would exceed a height of 200 feet above existing grade shall be required to file Form 7460-1 with the Federal Aviation Administration.
- *Policy S-4.2 Federal Aviation Regulation Part 77:* Do not approve buildings and structures that would penetrate FAR Part 77 Imaginary Obstruction Surfaces, unless consistent with the California Public Utilities Code Section 21240, such building or structure is determined by FAA to pose “no hazard” to air aviation. Additionally, under this policy, applicants proposing buildings or structures that penetrate the 100:1 Notification Surface will be required to file a Form 7460-1 Notice of Proposed Construction or Alteration with FAA and provide a copy of the FAA determination to the City and the ALUC.

- *Policy S-4.3 Light, Glare, and Other Interference:* Minimize hazards to aeronautical operations by ensuring land uses do not emit excessive glare, light, steam, smoke, dust, or electronic interference in compliance with FAA regulations and the John Wayne Airport Environs Land Use Plan.
- *Policy S-4.5 Referral to ALUC:* Prior to the amendment of the City's general plan or a specific plan, or the adoption or approval of a zoning ordinance or building regulation within the planning boundary established by the ALUC, and pursuant to Public Utilities Code Section 21676, the City shall first refer the proposed action to the ALUC.
- *Policy S-4.6 Deed Disclosure Notice:* Provide notice of airport in the vicinity where residential development is being proposed within the 60 dBA CNEL noise contours for the John Wayne Airport.

4.6.2 ENVIRONMENTAL SETTING

CURRENT AND HISTORICAL USES ON THE PROJECT SITE

The current and past land uses within the project site were identified as part of the Phase I ESA to assess their potential to present concerns relative to the presence of hazards within the project site. These concerns are classified as Recognized Environmental Conditions (RECs), which are defined in Section 1.1.1 of the American Society for Testing and Materials Standard Practice as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. The American Society for Testing and Materials defines a Controlled Recognized Environmental Condition (CREC) as a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

Currently, the 17.2-acre project site is fully developed with South Coast Plaza Village, which is a shopping center occupied by seven buildings comprising approximately 164,049 square feet of retail/restaurant uses, offices, and a cinema building, constructed beginning in the early 1970s. The property also provides surface parking, a variety of trees and a half-acre lawn area. South Plaza Drive bisects the eastern and western portions of the project site.

As described in the project site's Phase I ESA, prior to development, the project site was utilized as undeveloped and/or agricultural land with no structures present until the mid-1960s. Given that no storage structures or spills were historically identified on the project site related to herbicides and pesticides, the Phase I ESA presumed that the amount of these substances administered on the site would have been at "application" concentrations, if any.

In the northwestern corner of the project site, a commercial building was constructed in 1965 until demolition in the early 1990s. This portion of the project was subsequently redeveloped into additional surface parking. In the central-eastern portion of the project site, east of South Plaza Drive, a commercial building was constructed in 1981. This building opened in 1981 and was utilized as an office building prior to being demolished in 2013. This portion of the site currently remains vacant land with grass landscaping.

The existing seven retail, restaurant and movie theater buildings associated with the South Coast Plaza Village were constructed on the project site between 1971 and 1973. Various retail, restaurant, entertainment, artistic, beauty, business, financial, and medical tenants have operated at the site from 1971 to the present.

The Phase I ESA revealed no evidence of RECs and/or CRECs in connection with the project site; however, the assessment revealed evidence of the following *de minimis* condition[2] in connection with the Antonello Ristorante tenant space. Specifically, during site reconnaissance, a gasoline odor was noted upon entrance to the electrical room of this space and dissipated as the door stayed open. No gasoline storage or spills were observed in this area. Based on the lack of evidence regarding a release, the Phase I ESA considers this odor a *de minimis* condition.

HAZARDOUS MATERIALS DATABASE SEARCH

The Phase I ESA (Appendix E) included a database search of the project site and up to a one-mile radius based on various federal, state, and local databases (refer to Appendix E of the Phase I ESA).

Project Site

The database search showed that Corner Bakery located at 1621 W. Sunflower Avenue, Suite D50, in the southern portion of the project site was listed by the California Environmental Reporting System Hazardous Waste Sites database for having a Chemical Storage Facility program with one reported compliance violation. On May 22, 2017, this facility received a compliance violation for failure to annually review and certify that the business plan is complete and accurate with disclosure of carbon dioxide storage. This facility returned to compliance by August 10, 2017. No other violations were noted during subsequent evaluations of the facility, including during the most recent evaluation on January 30, 2020.

The Bayley Construction business located at 1631 W. Sunflower Avenue, Suite D50, in the central portion of the project site was listed by the Hazardous Waste Manifest Data database as having a hazardous waste manifest for recycling unspecified organic liquid mixture in 2000. The listing includes an inactive date of June 11, 2001. No compliance issues or releases were reported in association with this listing. Based on this information, this listing would not be considered an environmental concern to the project site.

The Reuben's business located at 1641 W. Sunflower Avenue, Suite D50, was listed by the Toxic Pollutant Emissions Facilities database for having air emissions in 1990. No other details regarding the air emissions were reported in this listing. Based on this information, the lack of ongoing air emissions, and the lack of reported hazardous materials releases, this listing is not considered an environmental concern to the project site.

No compliance violations or hazardous chemicals were identified for 1561 Sunflower Avenue; 1621 Sunflower Avenue, Suite D50; 1631 Sunflower Avenue, Suites C4, C41 and C35; 1641 Sunflower Avenue; 1661 Sunflower Avenue, Suites A1 and A2; and 3851 Bear Street, Suites 17, B20 and 21.

Adjoining and Surrounding Properties

The Phase I ESA also reviewed adjoining and surrounding properties to evaluate the potential for contaminant migration to the project site.

The Cost Plus Inc. tenant space located at 1313 Sunflower Avenue approximately 0.03 mile east of the project site was listed in the Resource Conservation & Recovery Act—Non-Generators (RCRA NON GEN) database as a non-generator of hazardous waste with no reported compliance violations as of November 2021. The California Environmental Reporting System Hazardous

[2] De minimis conditions are defined as conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis are not RECs nor CRECs.

Waste Sites database listed this facility as having a Hazardous Waste Generator program with no reported violations. The Orange County—Hazardous Waste Facilities database also listed this facility as a hazardous waste facility. However, no other information was reported in this listing. Based on this information and the down-gradient location of this facility, these listings would not be considered an environmental concern to the project site.

854 Bear Creek located 0.03 mile west of the project site was listed in the RCRA NON GEN database as a non-generator of hazardous waste with no reported compliance violations as of November 2021. 3446 Meadow Brook located approximately 0.03 mile west of the project site is listed in the RCRA NON-CORRACTS Treatment, Storage, and Disposal and RCRA NON GEN databases as a treatment, storage, and/or disposal facility, and a non-generator of hazardous waste with no reported compliance violations as of November 2021. A multi-family residential complex at 3653 Bear Street #C, 3643 Bear Street #G, and 3671 S. Bear Street is located approximately 0.11 mile north of the project site. Multiple tenants and addresses within the complex are listed in the RCRA NON-CORRACTS Treatment, Storage, and Disposal and RCRA NON GEN databases with no reported compliance violations as of November 2021. Based on this information, these listings would not be considered an environmental concern to the project site.

The South Coast Plaza Shopping Mall and various retail tenants at 3333 Bristol Street are located approximately 0.11 mile southeast of the project site. As detailed in the Phase I ESA, TRC reviewed the 92 database listings for this facility and limited the discussion of listings to those below based on the type of database and whether the presence of contamination is known. The Historical Hazardous Substance Storage Container Information Facility Summary database listed Sears Roebuck and Co as historically having seven on-site tanks installed in 1965 and 1966 and last used in 1985, including: one 1,000-gallon waste oil tank; two 2,000-gallon tanks with unreported contents; one unreported capacity tank with unreported contents; and three 1,000-gallon tanks with unreported contents. The Delisted County Records listed the Sears facility as a storage tank facility that was removed from the CalEPA Regulated Site Portal with a record date of November 29, 2018, and an aboveground petroleum storage tank listing removed from the database with a record date of May 1, 2019. Sears Roebuck and Co was listed on the Aboveground Storage Tanks database for having a 1,320-gallon aboveground storage tank. Sears Roebuck and Co was listed on the Leaking Underground Storage Tank database for a petroleum release from a storage tank that was discovered during tank closure and reported on January 5, 1988. Following tank removal and remediation, the status of the case was reported as completed, and the case was closed with a No Further Action letter on December 20, 2004. Based on the current regulatory statuses, cross-gradient location and resolution of the release case, the Phase I ESA concluded that these listings would not be considered an environmental concern to the project site.

A facility at 3767 S. Plaza Drive located 0.07 mile northeast of the project site was listed in the DRYCLEANERS database as a registered dry-cleaning facility since June 13, 2000, and in the RCRA NON GEN database as a non-generator of hazardous waste with no reported compliance violations, as of November 2021. The Orange County—Hazardous Waste Facilities database listed this facility as a hazardous waste facility with no other information reported. Based on this information, the down-gradient location of this facility, and lack of reported releases, these listings would not be considered an environmental concern to the project site.

HAZARDOUS SUBSTANCES

During the site visit documented in the Phase I ESA, one 5-gallon container of Maverick Oil was observed in the elevator room located within the Orange County Museum of Art tenant space.

One 7.5-gallon metal safety can of gasoline and one 10-gallon metal safety can of diesel were observed in the exterior trash collection area. Two 100-liter tanks of liquid carbon dioxide and two 24-ounce cylinders of compressed carbon dioxide were observed in restaurant spaces. Approximately 25 1-gallon paint containers were observed in a retail store. These containers listed above appeared to be in good condition with no evidence of leakage. Various retail-sized cleaning products typical of existing uses were observed in good condition throughout the project site.

POLYCHLORINATED BIPHENYLS

Typical sources of polychlorinated biphenyls (PCBs) include electrical transformer cooling oils, fluorescent light fixture ballasts, and hydraulic oil. In 1976, the USEPA banned the manufacture and sale of PCB-containing transformers. Prior to this date, transformers were frequently filled with a dielectric fluid containing PCB-laden oil. Due to their hazardous properties, all aspects of PCBs are strictly regulated by the USEPA under the Toxic Substances Control Act. These regulations ban the manufacture of PCBs although the continued use of existing PCB-containing equipment is allowed. Transformer oil containing PCBs at a concentration exceeding five parts per million is the California-regulated concentration for hazardous waste though PCBs in transformer oil at a concentration up to 50 parts per million are currently allowed in transformers in California. The Toxic Substances Control Act also contains provisions controlling the continued use and disposal of existing PCB-containing equipment.

According to the Phase I ESA, two pad-mounted transformers were observed at the western edge of the project site adjacent to Bear Street, and at the southern portion of the Site near Morton's Restaurant. The PCB-content of these transformers is unknown; however, there was no evidence of leakage. Hydraulic elevator equipment was also observed at the Orange County Museum of Art tenant space onsite, where equipment was observed in good condition with no evidence of leakage. A hydraulic trash compactor and cardboard baler were also observed in the outdoor trash collection area, and no evidence of staining or leakage was observed.

ASBESTOS-CONTAINING MATERIALS

Asbestos is a naturally occurring mineral made up of microscopic fibers. Asbestos has unique qualities that include its strength, fire resistance, resistance to chemical corrosion, poor conduction of heat, noise, and electricity, and low cost. Asbestos was widely used in the building industry starting in the late 1800s and up until the late 1970s for a variety of uses, including acoustic and thermal insulation and fireproofing, and is often found in ceiling and floor tiles, linoleum, pipes, structural beams, and asphalt. Despite its useful qualities, asbestos becomes a hazard if the fibers separate and become airborne. Inhalation of airborne asbestos fibers could cause lung diseases. As the existing buildings were constructed on the project site between 1971 and 1973, it is considered likely that the building materials contain asbestos-containing materials.

LEAD-BASED PAINT

Lead is a naturally occurring element and heavy metal that was widely used as a major ingredient in most interior and exterior oil-based paints prior to 1950. Lead compounds continued to be used as corrosion inhibitors, pigments, and drying agents from the early 1950s to 1972, when the Consumer Products Safety Commission specified limits on lead content in such products. The most common paths of lead exposure in humans and adverse health effects are through ingestion and inhalation. As the existing buildings were constructed on the project site between 1971 and 1973, it is possible that lead-based paint was utilized onsite.

OTHER SITE CONDITIONS

Multiple floor drains were observed throughout the project site's tenant spaces, and stormwater drains were observed in parking areas throughout the project site. Three grease traps/clarifiers were also observed for three restaurant uses within the project site. No evidence of staining or sumps were observed in the vicinity of these areas.

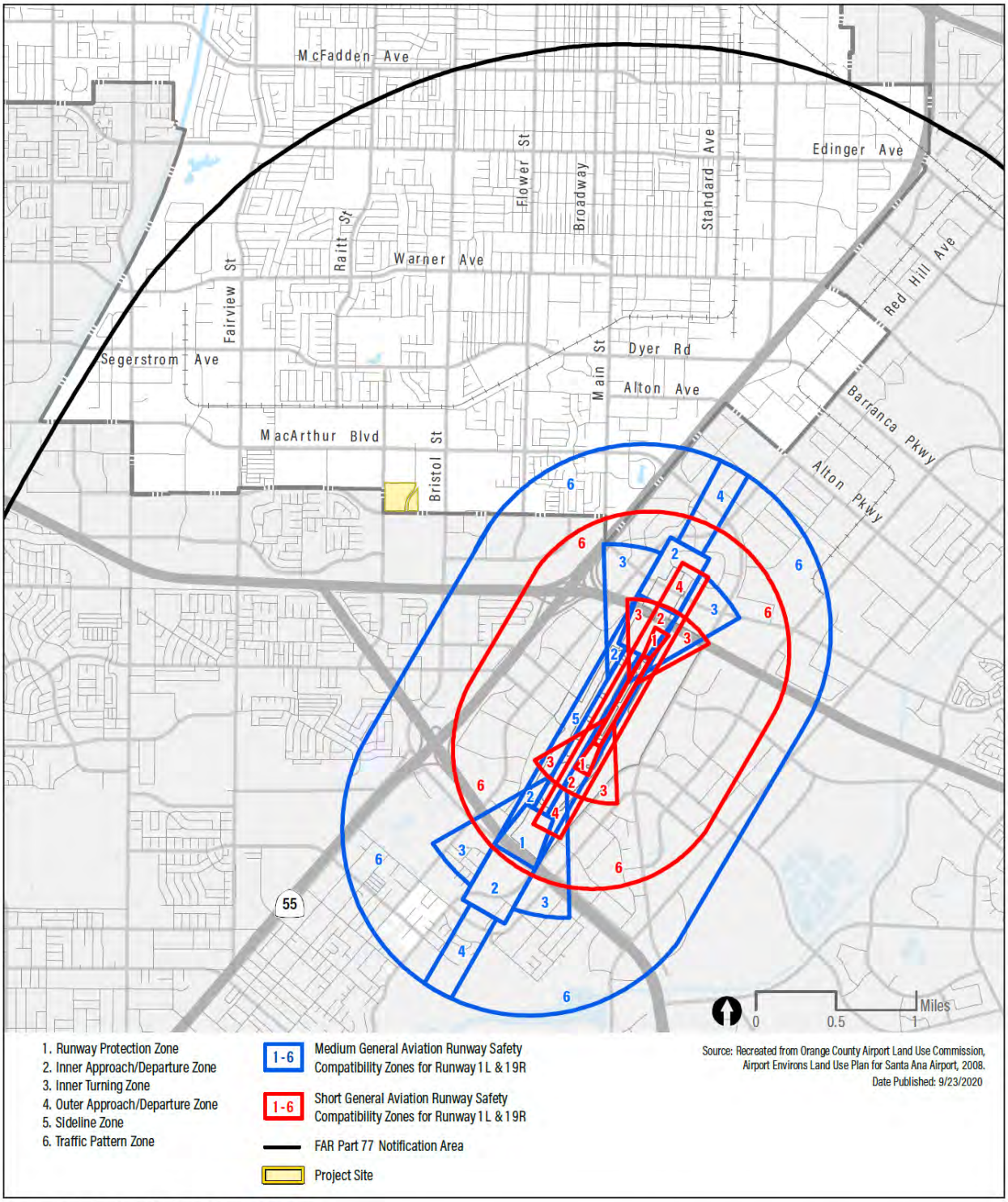
Five water monitoring wells were reported onsite, including two in the northeast corner of the site in the parking lot area, one behind Morton's Restaurant, and two along Bear Street. According to the project site representative, these monitoring wells were installed approximately 2-3 months prior to TRC's assessment for the purpose of determining water tables, water quality, water level, and the amount of water located beneath the site. Based on the lack of contamination reported in association with these monitoring wells, the Phase I ESA concluded that the wells would not be considered an environmental concern to the Site.

The State of California Geologic Energy Management Division online mapping system indicates that there are no oil wells onsite or within the vicinity.[3]

JOHN WAYNE AIRPORT (SNA)

The project site is located approximately 1.5 miles northwest of SNA and outside any Safety Compatibility Zones (including the Runway Protection Zones) and the 60 CNEL noise contours.[4,5] As shown in Figure 4.6-1: Airport Environs Land Use Plan Area and Federal Aviation Regulations Part 77 Notification Area, the project site is located within the AELUP Notification Area for SNA, which includes the FAR Part 77 Notification Area. The Orange County ALUC uses FAR Part 77 as the criteria for determining height restrictions in the county. FAR Part 77 requires notification to the FAA for any project that would be more than 200 feet in height above ground level or that would penetrate a Part 77 Imaginary Obstruction Surface. FAA notification for the proposed project is required because the project site is located within the AELUP notification area for SNA and within the FAR Part 77 Notification Area. Because the project proposes a Specific Plan and a zone change, the City is required to refer the proposed project to the ALUC for review, pursuant to the California Public Utilities Code Section 21676.

[3] CalGEM, Well Finder, available at: https://maps.conservation.ca.gov/doggr/wellfinder/, accessed January 2024.
[4] City of Santa Ana, 2020, General Plan, Safety Element, Figure S-4, Airport Safety Zones, available at: https://general-plan-santa-ana-ca.proudcity.com/documents/figure-s-4-airport-safety-zones/.
[5] City of Santa Ana, 2019, General Plan Safety Element John Wayne Airport Annual 60-75 (5 dB intervals) CNEL Noise Contours, available at: https://files.ocair.com/media/2021-03/2019.pdf?VersionId=IanRsB2R2SvCDDlkbaeTGBI2J4kCdANw.



Source: City of Santa Ana General Plan, Figure S-4, Airport Safety Zones

THE VILLAGE SANTA ANA SPECIFIC PLAN PROJECT

Airport Environs Land Use Plan Area and Federal Aviation Regulations Part 77 Notification Area

Michael Baker INTERNATIONAL

NOT TO SCALE

01/2024 - JN 192887

Figure 4.6-1

4.6.3 THRESHOLDS OF SIGNIFICANCE

The significance thresholds used to evaluate the impacts of the proposed project related to hazards and hazardous materials are based on Appendix G of the State CEQA Guidelines. A project would have a significant impact related to hazards and hazardous materials if it would:

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

H-2 ***Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.***

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

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

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

H-6 ***Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.***

H-7 ***Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.***

4.6.4 METHODOLOGY

This evaluation of the significance of potential impacts related to hazards and hazardous materials considers both direct effects to the resource and indirect effects in a local or regional context. Potentially significant impacts would generally result in the loss or degradation of public health and safety or conflict with local, state, or federal agency regulations. Information for this section was obtained, in part, from the General Plan and GPU PEIR, and the Phase I ESA.

The methodology for the evaluation of potential project impacts related to the operation of SNA focuses on potential hazards associated with development of structures on the project site and ongoing operation of SNA. The proposed project was evaluated for compliance with existing FAA guidelines and regulations related to siting structures near an operating airport and consistency with the policies of the AELUP for SNA that are related to implementation of the proposed project.

4.6.5 PROJECT IMPACTS

H-1 ***Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*** *[GPU PEIR Impact 5.8-1]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

As discussed in the GPU PEIR, construction of developments associated with the GPU would involve demolition, grading, and construction of new buildings. Potentially hazardous materials used during construction include substances such as paints, sealants, solvents, adhesives, cleaners, and diesel fuel. While there is potential for these materials to spill or to create hazardous conditions, the materials used would not be in such quantities or stored in such a manner as to pose a significant safety hazard. These activities would be short-term and temporary in nature. Project construction workers would be trained in safe handling and hazardous materials use. Operation of projects developed pursuant to the GPU would involve hazardous materials used in industrial and commercial land uses as well as hazardous materials used for cleaning and maintenance purposes in almost all developed land uses, such as cleaners, solvents, paints, pesticides, and fertilizers. The amounts of hazardous materials used would vary by land use type; amounts would be small for residential, school, institutional, and many office uses. Amounts would be larger for industrial uses; businesses selling hazardous materials, such as gasoline stations; and service businesses using hazardous materials in their operations, such as construction contractors, painters, cleaners, and printers. Accordingly, GPU developments would comply with federal, state, and local regulations to ensure proper transport, use, and disposal of hazardous materials. Therefore, the GPU PEIR determined that related impacts would be less than significant.

Proposed Project Impact Analysis

Construction of the project would involve construction practices that were considered and analyzed in the GPU PEIR. Project construction activities would include demolition, excavation, on-site grading, and building construction, which would require use of fuel and oils associated with construction equipment, as well as coatings, paints, adhesives, and cleaners. However, all potentially hazardous materials used during construction of the project would be used and disposed of in accordance with manufacturers' specifications and instructions, thereby reducing the risk of hazardous materials use. In addition, the project would comply with all applicable federal, state, and local requirements concerning the use, storage, and management of hazardous materials.

As the existing buildings were constructed on the project site between 1971 and 1973, it is considered likely that the building materials contain asbestos-containing materials, and it is possible that lead-based paint was utilized onsite. Therefore, asbestos surveys and abatement of ACMS and lead-based paint testing would be required prior to demolition of the existing buildings in accordance with the existing SCAQMD Rule 1403, CalOSHA, and California Health and Safety Code. In the event that asbestos-containing materials are found on-site during construction, suspect materials would be removed by a certified asbestos abatement contractor in accordance with applicable regulations, including testing, notification, and work practices specified in SCAQMD Rule 1403. In addition, development of the project would include the use of commercially sold construction materials without asbestos or asbestos-containing materials. With compliance with relevant regulations and requirements, project construction activities would not expose people to a substantial risk resulting from the release of asbestos fibers into the environment. In the event that lead-based paint is found within areas proposed for demolition or renovation, suspect materials would be removed in accordance with procedural requirements and regulations for the proper removal and disposal of lead-based paint prior to construction activities, including standard handling and disposal practices pursuant to OSHA regulations. Example procedural requirements include the use of respiratory protection devices while handling lead-containing materials, containment of lead or materials containing lead on the project site or at locations where construction activities are performed, and certification of all consultants and contractors conducting activities involving lead-based paint or lead hazards.

According to the Phase I ESA, PCBs are located on the project site. There was no evidence of staining or leakage. Nevertheless, in the event that PCBs are found within areas proposed for construction, suspect materials would be removed in accordance with all applicable federal, state, and local regulations, such as the Toxic Substances Control Act and California Hazardous Waste Control Law.

Therefore, based on the above, the project's construction impacts associated with the transport, use, or disposal of hazardous materials would be similar to those identified in the GPU EIR and less than significant.

Project operation involves land uses and activities that were envisioned and analyzed in the GPU PEIR. During operation, the proposed project would include use, storage, and disposal of hazardous materials typically associated with residential and commercial uses, including restaurants and retail stores. However, as with project construction, all hazardous materials used on the project site during operation would be used, stored, and disposed of in accordance with manufacturer's standards and all applicable federal, state, and local requirements such as those set forth by CalOSHA, California Emergency Management Agency, DTSC, and the Orange County Environmental Health Division of the Health Care Agency. Therefore, with compliance with manufacturer's standards and all applicable local, state, and federal laws and regulations relating to environmental protection and the management of hazardous materials, impacts associated with the routine transport, use, or disposal of hazardous materials during operation of the project would be similar to those identified in the GPU EIR and less than significant.

The project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures. Mitigation Measures

MITIGATION MEASURES

Impacts related to Threshold H-1 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold H-1 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

H-2 Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? *[GPU PEIR Impact 5.8-1]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

As discussed in the GPU PEIR, construction and operation of projects under the GPU would involve some risk of accidental release of hazardous materials used by the projects, as well as accidental disturbance of existing hazardous materials in the environment, such as petroleum products released from leaking underground storage tanks, or ACM or LBP in existing buildings that would be renovated or demolished. Use, storage, transport, and disposal of hazardous materials in conformance with regulations would reduce both the likelihood of an accidental

release and the potential consequences in the event of an accidental release. Impacts under the GPU would be less than significant.

Proposed Project Impact Analysis

As detailed above in Section 4.6.2, the Phase I ESA conducted for the proposed project revealed no evidence of RECs and/or CRECs in connection with the project site. An odor associated with one of the existing buildings on site was detected during the Phase I ESA site visit; however, based on the lack of evidence regarding a release, the odor is considered a *de minimis* condition. Additionally, the Phase I ESA determined that the potential for contamination to be migrating to the project site from the adjacent properties is considered low. As discussed above under Threshold H-1 and in accordance with GPU PEIR RR HAZ-4, in the event that ACMs, LBP, PCBs are found on-site during construction activities, materials would be removed in accordance with procedural requirements and regulations for the proper removal and disposal. With compliance with relevant regulations and requirements, project construction activities would not expose people to a substantial risk resulting from the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

The Phase I ESA also recognized that the project site was used for agricultural purposes until the mid-1960s. Given that no storage structures or spills were historically identified on the project site related to herbicides and pesticides, it is presumed that the amount of these substances administered on the site would have been at "application" concentrations, if any. The site does not appear likely to have been impacted by releases of herbicides and pesticides. Therefore, construction and operational impacts would be similar to those identified in the GPU PEIR and be less than significant.

Therefore, the proposed project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR involving the release of hazardous materials into the environment, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold H-2 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold H-2 were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

H-3 Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? *[GPU PEIR Impact 5.8-1]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

The GPU PEIR determined that impacts related to emitting hazardous emissions or handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school would be less than significant. There are no schools within one-quarter mile of the project site. The closest school to the project site is California Pacific Charter

Schools, located approximately 0.3 mile to the southwest. Therefore, impacts would be consistent with those identified in the GPU PEIR and no impact would occur.

Proposed Project Impact Analysis

The project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

No impacts related to Threshold H-3 would occur. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

The level of significance after mitigation is not applicable, as no impacts related to Threshold H-3 would occur and no mitigation measures are required or included.

H-4 ***Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, create a significant hazard to the public or the environment?*** *[GPU PEIR Impact 5.8-2]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

The GPU PEIR stated that any development, redevelopment, or reuse on or next to hazardous materials sites would require environmental site assessment by a qualified environmental professional to ensure that the project would not disturb hazardous materials on any of the hazardous materials sites or plumes of hazardous materials diffusing from one of the hazardous materials sites. Additionally, Phase I Environmental Site Assessments are required for projects to minimize environmental liability under other laws such as Resource Conservation and Recovery Act. The GPU PEIR determined that impacts related to hazardous materials sites would be less than significant.

Proposed Project Impact Analysis

The project site is not included on any hazardous waste site lists included in the Department of Toxic Substances Control's EnviroStor database, which includes CORTESE sites and the Environmental Protection Agency's database of regulated facilities, or other lists compiled pursuant to Section 65962.5 of the Government Code. [6,7,8,9] These lists include but are not limited to: solid waste disposal sites identified by the SWRCB with waste constituents above hazardous waste levels outside the waste management unit; SWRCB database of leaking underground

[6] California Department of Toxic Substances Control, EnviroStor database, available at: https://www.envirostor.dtsc.ca.gov/public/, accessed January 2024.

[7] California Environmental Protection Agency, Sites Identified with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit, available at: https://calepa.ca.gov/wp-content/uploads/2016/10/SiteCleanup-CorteseList-CurrentList.pdf, accessed January 2024.

[8] State Water Resources Control Board, GeoTracker, List of Leaking Underground Storage Tank Sites, available at: https://geotracker.waterboards.ca.gov/map/?global_id=T0607302824, accessed January 2024.

[9] California Environmental Protection Agency, Cortese List: Section 65962.5(c), List of "active" and CDO and CAO, available at: https://calepa.ca.gov/sitecleanup/corteselist/section-65962-5c/, accessed January 2024.

storage tanks sites; list of sites with active cease and desist orders and cleanup or abatement orders identified by the SWRCB.

The project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures. The project would be consistent with the GPU PEIR and have no impact.

MITIGATION MEASURES

No impacts related to Threshold H-4 would occur. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

The level of significance after mitigation is not applicable, as no impacts related to Threshold H-4 would occur and no mitigation measures are required or included.

H-5 For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? *[GPU PEIR Impact 5.8-3]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

The GPU PEIR stated that projects approved under the proposed GPU would be required to comply with FAA airspace protection regulations and other safety considerations noted in the AELUP for SNA. Thus, impacts are considered less than significant.

Proposed Project Impact Analysis

The project site is located approximately 1.5 miles northwest of SNA and outside any SNA Safety Compatibility Zones (including the Runway Protection Zones) and the 60 dbA CNEL noise contours. Therefore, the project would not result in a safety hazard or excessive noise for people residing or working in the project area. However, as shown in Figure 4.6-1: Airport Environs Land Use Plan Area and Federal Aviation Regulations Part 77 Notification Area, the project site is located within the AELUP Notification Area for SNA, which includes the FAR Part 77 Notification Area.[10] The project is required to be submitted to the FAA for an aeronautical review. The project is also required to be submitted to the Orange County ALUC for review, pursuant to the California Public Utilities Code Section 21676. If the ALUC finds the project inconsistent, the local agency may after a public hearing, propose to overrule the ALUC by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes described above. Upon completion of the review process, the project would not result in a safety hazard or excessive noise for people residing or working in the project area, and no impact would occur. The project's impacts would be consistent with the GPU PEIR.

The project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe

[10] City of Santa Ana, 2020, General Plan, Safety Element, Figure S-4, Airport Safety Zones, available at: https://general-plan-santa-ana-ca.proudcity.com/documents/figure-s-4-airport-safety-zones/.

impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

No impacts related to Threshold H-5 would occur. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

The level of significance after mitigation is not applicable, as no impacts related to Threshold H-5 would occur and no mitigation measures are required or included.

H-6 Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? *[GPU PEIR Impact 5.8-4]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

As described in the GPU PEIR, the proposed GPU would result in increased population and traffic congestion and could adversely affect evacuation plans and routes; however, the Santa Ana Police Department manages the City's emergency management services and coordinates with all City departments, Orange County Fire Authority, Orange County's Emergency Management Division, Santa Ana Unified School District, the American Red Cross, other county departments and agencies and surrounding cities to provide preparedness, coordination, and response to extraordinary emergency situations, including natural disasters. As determined in the GPU PEIR, buildout of the GPU would not result in substantial changes to the circulation patterns or emergency access routes, and would not block or otherwise interfere with use of evacuation routes. Additionally, as stated in the GPU PEIR, all circulation network improvements would be subject to review and future consideration. As such, buildout would not interfere with operation of the City's EOC and would not interfere with operations of emergency response agencies or with coordination and cooperation between such agencies; thus, the GPU PEIR found the GPU impacts to emergency response planning to be less than significant.

Proposed Project Impact Analysis

The proposed project would introduce new residential units, retail, and office uses to a site that currently only includes retail uses. During construction of the proposed project, while it is expected that the majority of construction activities would be confined to the project site, limited off site construction activities may occur in adjacent street rights-of-way intermittently, which could potentially require partial, temporary lane closures (e.g., traffic control by flagmen while certain equipment or materials are moved on or off the site). However, if temporary lane closures are necessary, the remaining travel lanes would remain open in accordance with standard traffic control plans that would be submitted to and reviewed by the City's Public Works Agency Development Engineering staff, which would ensure adequate circulation and emergency access. Upon completion of construction activities, all travel lanes would be restored to pre-existing conditions.

Operation of the project would generate traffic in the Project Site vicinity and would result in some modifications to the project site's access. However, as discussed in Section 4.13, Transportation, public and private roadways throughout the project site would be designed to accommodate emergency vehicles for fire, ambulance, and police services. The roadways would not have restricted access such as gates that would prevent emergency vehicles from reaching the

intended destinations. Roadway improvements and new roadway construction would be constructed in accordance with the Orange County Fire Authority standards and code requirements. Therefore, the project would not physically interfere with or impair the implementation of the City's emergency response plan, and the project's impacts would be similar to those identified in the GPU PEIR and less than significant.

The project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold H-6 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold H-6 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

H-7 Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? *[GPU PEIR Impact 5.8-5]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

The City is not within a fire hazard severity zone. The GPU PEIR determined that impacts related to exposing people or structures to a significant risk of loss, injury or death involving wildland fires would be less than significant.

Proposed Project Impact Analysis

The project site is located in an urban, developed area within the City and is surrounded by commercial and multi-family residential uses. No wildlands occur within or near the project site. As such, no impacts related to risk of wildland fires would occur, and Project impacts would be consistent with the GPU PEIR.

No new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

No impacts related to Threshold H-7 would occur. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

The level of significance after mitigation is not applicable, as no impacts related to Threshold H-7 would occur and no mitigation measures are required or included.

4.6.6 CUMULATIVE IMPACTS

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to the GPU PEIR, the extent of analysis of cumulative impacts for hazards and hazardous materials is contiguous with the City and the sphere of influence boundary, which includes a portion of the Santa Ana River Drainage Channel. The GPU PEIR did not identify any significant cumulative impacts related to hazards and hazardous materials.

Proposed Project Impact Analysis

As indicated in Table 4-1: List of Related Projects in Chapter 4, Environmental Analysis, there are 32 related projects in the vicinity of the project. GPU buildout in combination with the related projects would have the potential to increase the risk for an accidental release of hazardous materials, similar to the impacts from buildout of the GPU as identified in the GPU EIR. Each of the related projects would require evaluation for potential threats to public safety, including those associated with the use, storage, and/or disposal of hazardous materials, asbestos-containing materials, lead-based paint, and PCBs and would be required to comply with all applicable local, state, and federal laws, rules and regulations, as discussed above. Because environmental safety issues are largely site-specific, this evaluation would occur on a case-by-case for each individual project affected, in conjunction with development proposals on these properties. The nearest related project is the Related Bristol Specific Plan Project, which is located on a 42-acre site adjacent to and east of the project site. The Related Bristol Specific Plan Project proposes to demolish 16 existing commercial buildings and redevelop the site with up to 3,750 multi-family residential units, up to 350,000 square feet of commercial uses, a 250-room hotel, and a senior living/care use with up to 200 units. As discussed in its Draft Supplemental EIR dated July 2023, the Related Bristol Specific Plan Project's impacts related to hazards and hazardous materials would result in no impact, less than significant impacts, and less than significant impacts with mitigation incorporated.[11] The second nearest related project is the Chick-Fil-A Expansion Project, which is located at 3601 South Bristol Street, approximately 0.3 miles northeast of the project site. This related project required a Conditional Use Permit for its restaurant expansion and was determined to not result in impacts related to hazards and hazardous materials.[12] As such, all related projects would be required to fully comply with all applicable local, state, and federal laws, rules and regulations, as well as implementation of site-specific recommendations and would not have a cumulatively significant impact associated with hazards and hazardous materials.

As discussed in Section 4.6.5 Project Impacts, the proposed project would result in less than significant impacts related to hazards and hazardous materials. Therefore, the project's impacts related to hazards and hazardous materials would not be cumulatively considerable, and cumulative impacts to hazards and hazardous materials would be less than significant.

MITIGATION MEASURES

Cumulative impacts related to hazards and hazardous materials would be less than significant. Therefore, no mitigation measures are required.

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[11] City of Santa Ana, 2023, Related Bristol Specific Plan Project Draft Supplemental EIR, available at: https://www.santa-ana.org/documents/final-supplemental-environmental-impact-report-related-bristol-specific-plan/.

[12] City of Santa Ana Planning Commission, 2022, Resolution No. 2022-33, available at: https://cc-publicdocs.santa-ana.org/WebLink/docview.aspx?id=135660&dbid=1&cr=1.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Cumulative impacts related to hazards and hazardous materials were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

4.7 HYDROLOGY AND WATER QUALITY

This section describes the hydrology and water quality conditions of the project site and vicinity and evaluates the potential impacts that could occur with implementation of the proposed project. This section identifies watershed characteristics, existing water quality, groundwater, stormwater, and flood hazard conditions, and presents the regulatory requirements pertaining to hydrology and water quality. The analysis evaluates potential direct and indirect impacts from implementation of the proposed project. As the project pursues buildout of part of the City's GPU Land Use Plan, which was analyzed in the GPU PEIR, this section compares the project's impacts with the impacts identified in the GPU PEIR. This section is based in part, on the following:

- Updated Geotechnical Feasibility Study (Geotechnical Feasibility Study) prepared by NMG Geotechnical, Inc. (December 30, 2022), included as Appendix D; and
- Preliminary Water Quality Management Plan prepared by Tait & Associates (September 2024), included as Appendix F.

4.7.1 REGULATORY FRAMEWORK

FEDERAL

Federal Emergency Management Agency

The Federal Emergency Management Agency (FEMA) was established in 1979 to serve the dual functions of civil defense and emergency management. One of the responsibilities of FEMA is to manage the National Flood Insurance Program, which provides flood insurance to property owners, renters, and businesses for participating communities. FEMA also issues Flood Insurance Rate Maps that identify areas with a high risk of flooding. FEMA's minimum level of flood protection for new development is the 100-year flood event, also described as a flood that has a 1-in-100 chance of occurring in any given year.

Clean Water Act

The Clean Water Act (CWA) (33 USC § 1251 *et seq*.), as amended by the Water Quality Act of 1987, is the primary federal law that governs and authorizes water quality control activities by the U.S. Environmental Protection Agency (USEPA) as well as the states. The USEPA is the lead federal agency responsible for water quality management. Key sections of the CWA are as follows:

- Sections 303 and 304 provide for water quality standards, criteria, and guidelines. Under Section 303(d) of the CWA, the state of California is required to develop a list of impaired water bodies that do not meet water quality standards and objectives and establish total maximum daily loads for each pollutant/stressor.
- Section 402 establishes the National Pollutant Discharge Elimination System (NPDES), a permitting system for the discharge of any pollutant (except for dredged or fill material) into waters of the United States. This permit program is administered by the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCB), which have several programs that implement individual and general permits related to construction activities, municipal stormwater discharges, and various kinds of non-stormwater discharges.

Numerous agencies have responsibilities for administration and enforcement of the CWA. At the federal level, this includes the USEPA and the USACE, while at the state level, this includes the

California Environmental Protection Agency (CalEPA) and its sub-agencies, including the SWRCB and RWQCBs.

STATE

Porter Cologne Act

The Porter-Cologne Water Quality Control Act (California Water Code Section 13000 *et seq*.; California Code of Regulations. Title 23, Chapters 3 and 15) is the primary state regulation addressing water quality and waste discharges on land and provides a comprehensive water-quality management system for the protection of California waters. The Act grants the SWRCB and each of the nine RWQCBs power to protect water quality. Under the Act, any entity that discharges waste or proposes to discharge waste that may affect the state's water quality must file a report of the discharge with the appropriate RWQCB. Pursuant to the Act, the RWQCB may then prescribe waste discharge requirements that add conditions related to control of the discharge. Porter-Cologne defines "waste" broadly, and the term has been applied to a diverse array of materials, including nonpoint source pollution. When regulating discharges that are included in the CWA, the state essentially treats Waste Discharge Requirements and NPDES as a single permitting vehicle. In April 1991, the SWRCB and other state environmental agencies were incorporated into CalEPA.

The project site is located within the Santa Ana River Basin, Newport Bay watershed. The project site is within the jurisdiction of the Santa Ana RWQCB and subject to the Santa Ana River Basin Water Quality Control Plan (Basin Plan). The Basin Plan was most recently updated in June 2019. The Basin Plan informs of the beneficial uses of the waters, describes the water quality that must be maintained to support such uses, and provides programs, projects, and other actions necessary to achieve the established standards.

California Anti-Degradation Policy

In 1968, the SWRCB adopted the California Antidegradation Policy, otherwise known as the Statement of Policy with Respect to Maintaining High Quality Water in California. Unlike the Federal Antidegradation Policy, the California Antidegradation Policy applies to all waters of the state, not just surface waters. The policy states that whenever the existing quality of a water body is better than the quality established in individual basin plans, the higher quality shall be maintained. In addition, discharges to that water body shall not unreasonably affect present or anticipated beneficial use of the water resource.

Construction General Permit

The SWRCB has issued a Statewide NPDES Construction General Permit (Construction General Permit) for stormwater discharges associated with construction activities. The Construction General Permit (SWRCB Order No. 2009-0009-DWQ) has been amended by Order No. 2010-0014-DWQ, 2012-0006-DWQ, and 2022-0057-DWQ. Dischargers whose projects disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity. Construction activity subject to this permit includes clearing, grading, and ground disturbance, (e.g., stockpiling or excavation) but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The main objectives of the Construction General Permit are to:

- Reduce erosion;

- Minimize or eliminate sediment in stormwater discharges;
- Prevent materials used at a construction site from contacting stormwater;
- Implement a sampling and analysis program;
- Eliminate unauthorized non-stormwater discharges from construction sites;
- Implement appropriate measures to reduce potential impacts on waterways both during and after construction of projects; and
- Establish maintenance commitments on post-construction pollution control measures.

California requires all construction activities disturbing more than one acre of land to develop and implement Stormwater Pollution Prevention Plans (SWPPP). The SWPPP documents the selection and implementation of best management practices (BMP) for a specific construction project, charging owners with stormwater quality management responsibilities. A construction site subject to the Construction General Permit must prepare and implement a SWPPP that meets the requirements of the Construction General Permit.

State Water Resources Control Board Low Impact Development Policy

The SWRCB has adopted sustainability as a core value for all State Water Boards' activities and programs. Low Impact Development (LID) is a sustainable practice beneficial for water supply and water quality. LID utilizes site design and storm water management to maintain the site's pre-development runoff rates and volumes. The goal of LID is to imitate a site's existing hydrology through design techniques that infiltrate, filter, store, evaporate, and detain runoff close to the source of rainfall. Common LID practices include bioretention facilities, rain gardens, grass swales and channels, vegetated rooftops, rain barrels, cisterns, vegetated filter strips, and permeable pavements.

State Water Resources Control Board Trash Provisions

The SWRCB adopted the Trash Provisions on April 7, 2015. The Trash Provisions are consistent with the requirements of Section 303(c) of the CWA and the Code of Federal Regulations Section 40, Part 131. The primary purpose of the Trash Provisions is to provide statewide consistency for the SWRCB's regulatory approach to protect aquatic life and public health beneficial uses and reduce trash-related environmental issues in state waters, while focusing limited resources on high trash generating areas. The objectives of the Trash Provisions are as follows:

- Establish a narrative water quality objective for trash and describe how to apply the objective;
- Establish a prohibition on the discharge of trash;
- Provide implementation requirements for permitted storm water and other discharges and set a time schedule for compliance; and
- Provide a framework for monitoring and reporting requirements.

Under the Trash Provisions, municipal separate storm sewer system (MS4) permittees with regulatory authority over priority land uses (i.e., high density residential, industrial, commercial, mixed urban, and public transportation stations) are to comply with prohibited discharge by either of the following measures:

- Track 1: install, operate, and maintain full capture systems for all storm drains that captures runoff from the priority land uses in their jurisdictions; or

- Track 2: install, operate, and maintain any combination of full capture systems, multi-benefit projects, other treatment controls, and/or institutional controls within either the jurisdiction of the MS4 permittee or within the jurisdiction of the MS4 permittee and contiguous MS4 permittees.[1]

REGIONAL

Santa Ana Regional Water Quality Control Board Water Quality Control Plan

The project site is located within the jurisdiction of the Santa Ana RWQCB. The Basin Plan for the Santa Ana Region includes the upper and lower Santa Ana River watersheds, the San Jacinto River watershed, and several other small drainage areas. The RWQCB's Basin Plan contains policies for managing the region's water quality and water quality standards (water quality objectives, beneficial uses, and anti-degradation policy) for the region. The Basin Plan outlines water quality management and improvement initiatives, policies and practices for implementation, and implementation plans. Water quality management plans are reviewed every three years as mandated by the CWA, and basin plans are reviewed periodically for areas that need improvements or updates.

Santa Ana Regional Municipal Separate Storm Sewer System Permit

The General Stormwater Unit and the Municipal Stormwater Unit of the Santa Ana RWQCB enforce stormwater runoff regulation for the region. The Municipal Stormwater Unit administers the Phase I and Phase II MS4 permits and the Caltrans MS4 Permit programs, while the General Stormwater Unit administers the Industrial General Permit, Construction General Permit, and the Scrap Metal Permit programs. Both units regulate pollution in stormwater and non-stormwater discharges to waters of the U.S. (e.g., storm drains, rivers, streams, lakes, wetlands, and the ocean).

The MS4 Permit for the Santa Ana Region, NPDES Permit No. CAS618030 (Order R8-2009-0030 as amended by Order No. R8-2010-0062) regulates urban runoff from areas under jurisdiction of the permittees, including Orange County and its incorporated cities, as well as the Orange County Flood Control District. The MS4 Permit identifies allowable and unallowable discharges and requires implementation of LID infrastructure at project sites. Projects that qualify as a development or redevelopment project are required to develop a site-specific water quality management plan (WQMP), which includes site design, source control, and treatment control elements to reduce the discharge of pollutants in runoff. The WQMP is required to be approved prior to the issuance of a building or grading permit. The MS4 Permit also requires the implementation of BMPs. Biotreatment BMPs are a broad class of LID BMPs that reduce stormwater volume to the maximum extent feasible, treat stormwater using mechanisms characteristic of biologically active systems, and discharge water to the downstream storm drain system or directly to receiving waters. Examples of biotreatment BMPs include bioretention with underdrains, vegetated swales, constructed wetlands, and proprietary biotreatment systems.

Santa Ana Regional Water Quality Control Board Dewatering Permit

On December 6, 2019, the Santa Ana RWQCB issued the General Waste Discharge Requirements for Discharges to Surface Waters Resulting from De Minimis Discharges or Groundwater Dewatering Operations, and/or Groundwater Cleanup/Remediation Operations at Sites within the Newport Bay Watershed Permit (Order No. R8-2019-0061, NPDES No. CAG918002) (Groundwater Discharge Permit). The Groundwater Discharge Permit regulates

[1] State Water Resources Control Board, 2014, Part 1 Trash Provisions, available at: https://www.waterboards.ca.gov/water_issues/programs/trash_control/docs/trash_appendix_e_121615.pdf.

construction dewatering and groundwater discharges to surface waters during excavation activities. The Groundwater Discharge Permit specifies prohibitions for discharges, limitations for receiving waters, monitoring and reporting requirements, and general compliance criteria for construction dewatering. Dischargers are required to collect and analyze representative groundwater samples for all constituents listed in the Groundwater Discharge Permit, and to provide treatment for any toxic compounds detected above the applicable screening levels. To obtain coverage under the Groundwater Discharge Permit, each permittee must submit a Notice of Intent to begin the application process.

Orange County Drainage Area Management Plan

The 2003 Drainage Area Management Plan (DAMP) is the County's primary policy, planning, and implementation document for NPDES Stormwater Permit compliance. The primary objective of the DAMP is to develop and implement a program that satisfies NPDES permit requirements for fulfillment of the Permittees' requirements. The DAMP requires that new development and significant redevelopment projects (or priority projects) develop and implement a Preliminary WQMP that includes BMPs and LID design features that would provide on-site stormwater treatment to prevent pollutants from leaving the site.

Orange County Water District Basin 8-1 Alternative

The Coastal Plain of Orange County Groundwater Basin (Basin 8-1) is designated as a medium-priority basin by the Department of Water Resources, primarily due to heavy reliance on the Basin's groundwater as a source of water supply. The Alternative to a Groundwater Sustainability Plan (Basin 8-1 Alternative) was prepared in 2016 by a collaboration of the agencies within Basin 8-1. The Basin 8-1 Alternative presents an analysis of basin conditions that demonstrate that Basin 8-1 has operated within its sustainable yield over a period of at least 10 years. The Basin 8-1 Alternative was approved by the Department of Water Resources on July 17, 2019. The document is updated and resubmitted every five years as part of Sustainable Groundwater Management Act requirements, and the most recent update occurred on January 1, 2022.

LOCAL

City of Santa Ana General Plan Update

The City's GPU includes regulatory requirements (RR), goals, and policies related to hydrology and water quality. The following RRs, goals, and policies are applicable to the proposed project.

Regulatory Requirements

RR HYD-1: All development pursuant to the General Plan Update shall comply with the requirements of the Construction General Permit (Order No. 2012-0006-DWQ)[2] for stormwater discharges associated with construction activity. Compliance requires filing a Notice of Intent, a Risk Assessment, a Site Map, a Storm Water Pollution Prevention Plan and associated best management practices, an annual fee, and a signed certification statement.

RR HYD-4: All development pursuant to the General Plan Update shall comply with the requirements of the Orange County MS4 Permit (Order R8-2009-0030, NPDES No. CAS618030, as amended by Order No. R8-2010-0062). The MS4 Permit requires new development and redevelopment projects to:

- Control contaminants into storm drain systems

[2] The most recent order is 2022-0057-DWQ.

- Educate the public about stormwater impacts
- Detect and eliminate illicit discharges
- Control runoff from construction sites
- Implement best management practices and site-specific runoff controls and treatments for new development and redevelopment

RR HYD-5: All development pursuant to the General Plan Update shall comply with the requirements detailed in Chapter 18 Article IV of the Santa Ana Municipal Code.

Mobility Element

Goal M-1 Comprehensive Circulation: A comprehensive and multimodal circulation system that facilitates the safe and efficient movement of people, enhances commerce, and promotes a sustainable community.

- *Policy M-1.8 Environmental Sustainability*: Consider air and water quality, noise reduction, neighborhood character, and street-level aesthetics when making improvements to travel ways.

Goal M-5 Sustainable Transportation Design: A transportation system that is attractive, safe, state-of-the-art, and supports community, environmental, and conservation goals.

- *Policy M-5.4 Green Streets*: Leverage opportunities along streets and public rights-of-way to improve water quality through use of landscaping, permeable pavement, and other best management practices.

Public Services Element

Goal PS-3 Utility Infrastructure: Supply, maintain, and expand City services and infrastructure improvements through innovative funding options and sustainable practices.

- *Policy PS-3.5 Green Infrastructure*: Incorporate sustainable design and Low Impact Development (LID) techniques for stormwater facilities and new development to achieve multiple benefits, including enhancing, preserving, and creating open space and habitat; reducing flooding; and improving runoff water quality.

Conservation Element

Goal CN-4 Water Resources: Conserve and replenish existing and future water resources.

- *Policy CN-4.2 Landscaping*: Encourage public and private property owners to plant native or drought-tolerant vegetation.
- *Policy CN-4.4 Irrigation Systems*: Promote irrigation and rainwater capture systems that conserve water to support a sustainable community.
- *Policy CN-4.6 Water Quality*: Work with public and private property owners to reduce storm water runoff and to protect the water quality percolating into the aquifer and into any established waterway.

Open Space Element

Goal OS-3 Park Maintenance, Stewardship, and Sustainability: Maintain and manage parks, recreation facilities, trails and open space to sustain City assets and support safe use.

- *Policy OS-3.6 Sustainable Parks and Facilities*: Integrate drought tolerant or native plantings, waterwise irrigation, design and maintenance efficiencies, and sustainable development practices to reduce water use and energy consumption.

Safety Element

Goal S-1 Flood Safety: Protect life and minimize property damage, social and economic disruptions caused by flood and inundation hazards.

- *Policy S-1.7 Surface Water Infiltration*: Encourage site drainage features that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events on private and public developments.

City of Santa Ana Municipal Code

Chapter 18, Article IV, Section 18-156, Prohibition on Illicit Connections and Prohibited Discharges of the City's Municipal Code provides regulations for stormwater connections, prohibits certain discharges, and prohibits illicit connections related to stormwater.

Chapter 18, Article IV, Section 18-155, Control of Urban Runoff of the City's Municipal Code states all new development and significant redevelopment within the City shall be undertaken in accordance with the County DAMP. Prior to the issuance by the City of a grading permit, building permit, or nonresidential plumbing permit for any new development or significant redevelopment, City agencies are required to review the project plans and impose terms, conditions, and requirements on the project in accordance with the County DAMP and which are reasonably related to the reduction or elimination of pollutants in storm water runoff from the project site. The owner of a new development or significant redevelopment project must implement and adhere to the terms, conditions, and requirements on the new development or significant redevelopment project.

4.7.2 ENVIRONMENTAL SETTING

WATERSHEDS

The City of Santa Ana is located within portions of three watersheds, including the Anaheim Bay–Huntington Harbor Watershed, the Santa Ana River Watershed, and the Newport Bay Watershed. The project site is located within the Newport Bay Watershed.

The Newport Bay watershed is located in the central portion of Orange County and includes portions of or the entirety of nine cites: Costa Mesa, Irvine, Lake Forest, Laguna Hills, Laguna Woods, Newport Beach, Orange, Santa Ana, and Tustin, as well as several unincorporated areas of the County. The Newport Bay watershed is bordered by the foothills of the Santa Ana Mountains to the east (Loma Ridge), and the San Joaquin Hills to the west and southwest. The watershed spans a total area of approximately 154 square miles. The Newport Bay watershed contains four sub-watersheds, including the Peters Canyon Wash, Upper San Diego Creek, Lower San Diego Creek, and Newport Bay.[3]

SURFACE WATER QUALITY

Section 303(d) of the CWA requires states to identify water bodies that are "impaired," or those that do not meet water quality standards. Once a water body has been listed as impaired on the

[3] United States Environmental Protection Agency, 2024, Newport Bay Watershed, available at: https://19january2017snapshot.epa.gov/www3/region9/water/watershed/measurew/newport-bay/index.html, accessed February 2024.

303(d) list, a total maximum daily load for the pollutant must be developed for the water body. The project site drains to the Santa Ana Delhi Channel, which does not have 303(d) listed impairments.[4]

GROUNDWATER

The Orange County Basin (OC Basin) underlies the northerly half of Orange County, covering an area of approximately 350 square miles. The OC Basin is bordered by the Coyote and Chino Hills to the north, the Santa Ana Mountains to the northeast, and the Pacific Ocean to the southwest. The OC Basin boundary extends to the Orange County–Los Angeles County line to the northwest, where groundwater flows across the county line into the Central Groundwater Basin of Los Angeles County.

The Orange County Water District (OCWD) manages the OC Basin. The OCWD regulates groundwater levels in the OC Basin by regulating the annual amount of pumping. The OC Basin is designated as a medium-priority basin, primarily due to the heavy reliance on the Basin's groundwater as a source of water supply. The OC Basin has been operated within its sustainable yield for more than 10 years without degrading water quality, reducing storage, or lowering groundwater levels. The OC Basin is not adjudicated, and therefore, pumping from the OC Basin is managed through a process that uses financial incentives to encourage groundwater producers to pump a sustainable amount of water. The framework for the financial incentives is based on establishing the basin production percentage (BPP), or the percentage of each producer's total water supply that comes from groundwater pumped from the OC Basin. While there is no legal limit as to how much an agency pumps from the OC Basin, there is a financial disincentive to pump above the BPP as agencies that pump above the BPP are charged the replenishment assessment plus the Basin Equity Assessment.

Groundwater Supply

The OC Basin is recharged primarily by four sources: local rainfall, storm and base flows from the Santa Ana River, imported water from the Metropolitan Water District of Southern California (MWD), and highly treated recycled wastewater. Basin recharge occurs largely in four recharge basins that are in or adjacent to the City of Anaheim.

Groundwater production accounts for roughly 77 percent of the City's water supply, and the City's water system has a total of 21 groundwater wells. Following groundwater supply, any additional water demand is met by purchased imported water (23 percent) provided by the MWD through its purchase agreement with the City, and recycled water (1 percent).

By 2045, the City plans to increase its groundwater production to 84 percent of its total water supply, just below the maximum amount of 85 percent as set by OCWD. The remaining demand would be met by purchased imported water from MWD. The City would continue to purchase imported water under its 10-year purchase agreement with MWD.[5]

Groundwater Conditions

The OCWD administers an extensive groundwater quality monitoring program to manage the OC Basin's groundwater production, control groundwater contamination, and comply with all required

[4] State Water Resources Control Board, 2020-22 California Integrated Report Web Map, available at: https://gispublic.waterboards.ca.gov/portal/home/item.html?id=6cca2a3a18154655992012663 73cbb7b, accessed January 2024.

[5] Arcadis, 2021, City of Santa Ana 2020 Urban Water Management Plan, available at: https://storage.googleapis.com/proudcity/santaanaca/uploads/2022/02/2020-Urban-Water-Management-Plan.pdf.

laws and regulations. The OCWD maintains a network of nearly 700 wells that are sampled and tested to monitor basin water quality. The OCWD monitors groundwater quality for levels of total dissolved solids and nitrates, both of which are common issues in the OC Basin. The OC Basin's concentrations of total dissolved solids and nitrates are expected to decrease over time due to OCWD's management of groundwater used to recharge the basin.[6]

The project site contains eight groundwater observation wells that were installed in 2021.[7] There are four sets of two groundwater wells, consisting of one shallow well (14 to 15.5 foot deep) and one deep well (25.5 to 31.5 feet deep). During drilling, groundwater was encountered in the deeper wells that penetrated the upper clay confining layer. The shallow wells generally encountered little to no free groundwater during drilling. The groundwater wells were monitored during 2020-2022. The groundwater levels remain fairly constant with little fluctuation over time, with generally less than one (1) foot of fluctuation.

STORMWATER FACILITIES

Stormwater infrastructure throughout the City includes both City and Orange County Flood Control District (OCFCD) owned drainage facilities that convey stormwater runoff. All underground lines are under jurisdiction of the City and all open flood control channels are maintained by the OCFCD, except for one City-owned open trapezoidal channel that runs west from Harbor Boulevard to south of 1st Street. The City's stormwater infrastructure feeds to a series of OCFCD regional drainage channels and their respective drainage areas.

The primary stormwater facilities that serve the project site include 12-inch to 72-inch City storm drain lines and the OCFCD Gardens drainage channel. Existing drainage from the project site generally discharges to Bear Street, South Plaza Drive, and Sunflower Avenue via surface flow to parkway drain or direct storm drain connections. The public storm drain network generally flows from north to south and from west to east around the project site. Storm flows in Bear Street flow in existing reinforced concrete pipe toward Sunflower Avenue which then turn east and intersect with flows generated from South Plaza Drive to the north, and ultimately continue to drain to the east toward Bristol Street.

The City's Master Plan of Storm Drainage (MPD) recommended improvements for each regional watershed in the MPD's plan area. The MPD identified 10 improvement projects, two of which are in the project area. The Delhi watershed was identified for needed improvements between Alton Avenue and Sunflower Avenue, and the Garden's watershed was identified for needed improvements between Edinger Avenue and Sunflower Avenue. The City's Capital Improvement Plan and the County's Public Works' Capital Improvement Plan identify additional storm drain system projects throughout the City.

FLOOD HAZARDS, DAM INUNDATION, SEICHE, AND TSUNAMIS

According to the Federal Emergency Management Agency's Flood Map Service Center, the project site is classified as Zone X, an area with reduced flood risk due to levee. A Special Flood Hazard Area is defined as the area that will be inundated by a flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is

[6] Municipal Water District of Orange County, 2021, 2020 Urban Water Management Plan, available at: https://www.mwdoc.com/wp-content/uploads/2021/04/2020-UWMP.pdf.

[7] Giles Engineering Associate, Inc., 2001, Geotechnical Engineering Exploration and Analysis, Proposed Morton's Steakhouse, Sunflower Avenue and Plaza Drive, [Santa Ana], California, Project No. 2G-012001.

also referred to as the base flood or 100-year flood. The project site is not located within a Special Flood Hazard Area.[8]

According to the MPD, South Plaza Drive and Sunflower Avenue are areas with known street and adjacent-site ponding of 6 to 12 inches during a 100-year storm, though these segments have not been identified as areas of flooding concern. The MPD recommends upgrading the size of the existing storm drains in South Plaza Drive and Sunflower Avenue.

The project site is located within the dam inundation area for the Prado and Santiago Creek dams. Santiago Creek dam was built in 1933 and is owned and operated by the Serrano Water District and Irvine Ranch Water District. The dam has a capacity of 25,000 acre-feet and is an earthen dam. The Prado dam and reservoir are owned and operated by the Army Corp of Engineers and were constructed in 1941. The Prado Dam and Reservoir comprise more than 11,500 acres, and the reservoir has a capacity of 217,000 acre-feet.

A seiche is a surface wave created when an inland water body is shaken, usually by an earthquake or changes in atmospheric pressure. The Prado Reservoir, Irvine Lake, and the Santiago Creek Recharge Basins could generate seiches in the project area.

A tsunami is a series of ocean waves caused by a sudden displacement of the ocean floor, most often due to earthquakes. The City is approximately five miles inland from the Pacific Ocean.

4.7.3 THRESHOLDS OF SIGNIFICANCE

The significance thresholds used to evaluate the impacts of the proposed project related to hydrology and water quality are based on Appendix G of the State CEQA Guidelines. A project would have a significant impact related to hydrology and water quality if it would:

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

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

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

- ***i. Result in substantial erosion or siltation on- or off-site.***
- ***ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.***
- ***iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.***
- ***iv. Impede or redirect flood flows.***

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

[8] Federal Emergency Management Agency, 2024, Flood Map Service Center, available at: https://msc.fema.gov/portal/home, accessed January 2024.

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

4.7.4 METHODOLOGY

This evaluation of the significance of potential impacts related to hydrology and water quality is based on a review of published information and reports regarding regional hydrology, groundwater conditions, and surface water quality in the project area. The potential impacts on hydrology and water quality were evaluated by considering the general type of pollutants that the proposed project would generate during construction and operation. In determining the level of significance, the analysis assumes that implementation of the proposed project would comply with relevant federal and state laws, ordinances, and regulations.

4.7.5 PROJECT IMPACTS

HYD-1 Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? *[GPU PEIR Impact 5.9-1]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

Construction

Impact 5.9-1 of the GPU PEIR states that buildout under the GPU would involve soil disturbance, construction, and operation of developed land uses that could generate pollutants affecting stormwater. Buildout would involve construction of approximately 36,261 housing units and approximately 5.8 million square feet of nonresidential land uses, compared to existing conditions. To minimize potential impacts from pollutants, development pursuant to the GPU must comply with the Construction General Permit, which requires filing of a Notice of Intent with the SWRCB and the preparation and implementation of a SWPPP. As discussed in Section 4.4, Geology and Soils of this SEIR, a SWPPP requires the incorporation of BMPs to control sediment, erosion, and hazardous materials contamination of runoff during construction and prevent contaminants from reaching receiving water bodies. The SWRCB mandates that projects that disturb one or more acres of land obtain coverage under the statewide Construction General Permit, which requires filing of permit registration documents (PRD) with the SWRCB. Submittal of the PRDs and implementation of the SWPPP throughout the construction phase of projects pursuant to the GPU will address anticipated and expected pollutants of concern as a result of construction activities. Impact 5.9-1 of the GPU PEIR concluded that as a result of compliance with the Construction General Permit, water quality impacts associated with construction activities would be less than significant.

Operation

Impact 5.9-1 of the GPU PEIR states that with the proposed land use changes, development resulting from the GPU may have long-term impacts on the quality of stormwater and urban runoff, subsequently impacting downstream water quality. To help prevent long-term impacts associated with land use changes and in accordance with the requirements of the City of Santa Ana Local Implementation Plan and consistency with the Orange County DAMP and fourth term MS4 permit, designated new development and significant redevelopment projects must incorporate LID/site design and source control BMPs to address post-construction stormwater runoff management.

Proposed Project Impact Analysis

Construction

The project would redevelop the existing 17.2-acre site with approximately 1,583 residential units (encompassing approximately 1,850,000 square feet of building space), 80,000 square feet of retail space, 300,000 square feet of office space, and approximately 7.5 acres of publicly accessible open space and common areas. Construction of the project would require earthwork activities, including grading and excavation of the project site. Construction activities associated with the project have the potential to result in the conveyance of soils and other pollutants due to soil erosion during grading and soil stockpiling and subsequent siltation into municipal storm drains. However, similar to the GPU PEIR, construction activities would comply with requirements of the Construction General Permit (as required by RR HYD-1), including a project specific SWPPP and associated BMPs. BMPs required as part of a SWPPP typically include the following activities, practices, and/or procedures, to prevent or reduce water pollution and control runoff:

- Erosion control BMPs: preservation of existing vegetation, hydraulic mulching, and wind erosion control;
- Sediment control BMPs: silt fences, storm drain inlet protection, and street sweeping;
- Non-stormwater BMPs: water conservation practices such as water-efficient landscaping and irrigation; and
- Materials management BMPs: stockpile management, hazardous waste management, and contaminated soil management.

Further, as the project would disturb more than one acre of land, the project would be required to submit PRDs to the SWRCB. Construction dewatering may also be necessary due to the project's excavation for the proposed subterranean parking. Construction dewatering discharges would comply with the requirements of the Santa Ana RWQCB's Groundwater Discharge Permit, which requires sampling and treatment measures as necessary to ensure groundwater discharges would not contain high levels of pollutants.

Therefore, with compliance to the Construction General Permit and Groundwater Discharge Permit, the project would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater during construction, and construction-related impacts would be less than significant. Impacts resulting from construction of the proposed project would be consistent with the impacts disclosed in the GPU PEIR, which were determined to be less than significant.

Operation

The proposed project's storm drain network would be designed to match existing drainage and flow patterns to best utilize the capacities available in the existing public storm drain system (refer to Figure 3-15 of Chapter 3, Project Description). Due to the high podium building drainage demand and the presence of subterranean garage entrances, on-site drainage systems would be sized to protect all garage entrances from the 100-year storm street ponding elevation. Further bio-filtration boxes would be implemented as the primary water quality treatment method due to the shallow groundwater, poor soil infiltration rates, and subterranean construction activities (refer to Figure 3-16 of Chapter 3, Project Description). Surface bio-filtration planters, green roofs, and localized capture and reuse would also be incorporated throughout the project development.

In addition, as required by the MS4 Permit, both priority and nonpriority projects must develop a project specific WQMP that describes the list of BMPs chosen for the project and includes

operation and maintenance requirements for all structural and any treatment control BMPs. Additionally, all development pursuant to the GPU shall comply with the requirements of the Santa Ana Municipal Code (as required by RR HYD-5), which prohibits illicit connections to the storm drainage system and forbids prohibited discharges.

Furthermore, as discussed under Section 4.7.1, Regulatory Framework, the statewide Trash Provisions aim to reduce trash in receiving waters. A central element of the Trash Provisions is a land-use based compliance approach, which includes a dual alternative compliance Track approach proposed for permitted storm water dischargers to implement a prohibition of discharge for trash. The City of Santa Ana has selected Track 1 as its compliance option, which is to install, operate, and maintain full capture systems in storm drains that capture runoff from one or more priority land use area.

Drainage patterns would largely be maintained and would utilize the existing drainage facilities within the public right-of-way. Current runoff is captured and conveyed by existing storm drain infrastructure throughout the City before discharging to County drainage channels and to the Pacific Ocean. The City is built out except for a small number of vacant parcels that are stabilized and will likely be developed under buildout conditions. The majority of streams and channels that drain the City are concrete lined and not susceptible to scour or erosion. For areas that are tributary to streams that may be susceptible to scour, hydromodification requirements as part of the regional MS4 permit will ensure that impacts are minimized. Therefore, the GPU PEIR concludes that overall impacts would be less than significant.

Implementation of the proposed project would result in residential, commercial, office, and open space uses. Potential pollutants associated with the proposed uses may include oils and grease from vehicles; general maintenance products such as paints, solvents, and fuel; and landscaping chemicals such as pesticides, herbicides, and fertilizers. Incidental leaks and spills of these pollutants discharge into surface waters could result in the degradation of water quality.

However, similar to the GPU PEIR, the proposed project would follow the requirements of the local MS4 Permit, as required by RR HYD-4, and the Orange County Technical Guidance Document and incorporate post-construction BMPs and LID measures. Post-construction BMPs may include permanent structural BMPs, such as bio-filtration, as well as permanent non-structural BMPs, such as vegetation. LID measures may include site planning (e.g., reduce impervious areas, preserve open space, minimize land disturbance) and post-construction structural BMPs (e.g., bioretention swales, pervious pavements, cisterns), to reduce potential runoff. Specifically, due to the Technical Guidance Document capture requirements, shallow groundwater, poor soil infiltration rates, and anticipated basement level construction, the project site would be required to implement bio-filtration as the primary water quality treatment method. The project would incorporate proprietary flow-based bio- filtration boxes (e.g., Modular Wetlands or Filtera Units) as the primary bio-filtration method, or surface bio-filtration planters, green roofs, and localized capture and re-use as the alternative bio-filtration method. Additionally, during each phase of project development, the associated localized drainage and water quality systems dedicated to each building site would be confirmed during the design permitting phase with the City and constructed with each building before connecting to the on-site backbone storm drain system.

In addition, the WQMP would contain project specific BMPs for operation and maintenance. The Preliminary WQMP for the proposed project is provided as Appendix F of this Supplemental EIR. The WQMP is required to be approved prior to the issuance of a building or grading permit. The project's WQMP must be reviewed and approved by the City to ensure it complies with the local MS4 Permit and Orange County DAMP regulations. In addition, the project would comply with the

requirements of the Santa Ana Municipal Code and the Construction General Permit. Consistent with the City's Municipal Code, Section 41.623, the project would provide trash enclosures that are screened from public streets, alleys, and adjacent properties, and are consistent with the minimum standards of the statewide Trash Provisions. Therefore, with incorporation of typical post-construction BMPs and LID measures and adherence to applicable permits, the project would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater during operation, and operational impacts would be less than significant. Impacts resulting from operation of the proposed project would be consistent with the impacts disclosed in the GPU PEIR, which were determined to be less than significant.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to water quality standards or waste discharge requirements disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold HYD-1 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold HYD-1 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

HYD-2 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? *[GPU PEIR Impact 5.9-2]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to Impact 5.9-2 of the GPU PEIR, the City of Santa Ana relies on local groundwater resources for approximately 77 percent of its water supply, and the implementation of the GPU has the potential to increase water demand by 6,950 acre-feet per year (AFY). However, the GPU PEIR's Water Supply and Demand Technical Report showed that the projected water demand from the proposed GPU at buildout is well within the projected total water demand for 2040 in the 2015 Urban Water Management Plan for normal, dry year, and multiple dry year scenarios. Therefore, it is not anticipated that implementation of the GPU would exceed projected long-term water supplies.

Furthermore, the 2018-19 OCWD Engineer's report provides data on groundwater usage across its service area, including Santa Ana. The total groundwater production for the 2018-19 year was 302,756 acre-feet, which falls within OCWD's sustainable groundwater management goals. Population within OCWD's service area is expected to increase from the current 2.28 million people (based on Census 2010 demographic data) to approximately 2.59 million people by the year 2035. This population growth is expected to increase water demands from the current 393,222 AFY to 447,000 AFY in 2035 (a water demand projection that takes into consideration future water conservation savings). This yields an anticipated increase in water demand of 53,779 AFY. The proposed increase of 6,950 AFY under implementation of the GPU is well within the planned increase in water demands from OCWD projections.

Proposed Project Impact Analysis

OCWD oversees groundwater recharge and groundwater levels and has multiple mechanisms to prevent groundwater overdraft. As discussed in 4.7.1 Regulatory Setting, the basin is covered by Alternative Plan 8-1, and the groundwater management strategies laid out in the Alternative Plan have been approved by the California Department of Water Resources. Additionally, because Santa Ana is a built-out city, any proposed land use changes and development will occur within areas that are already built out and will not interfere with groundwater recharge.

Construction of the proposed project would require dewatering activities due to the project's excavation for the proposed subterranean parking. However, dewatering activities would be temporary and would not substantially decrease groundwater supplies. Refer to Section 4.15, Utilities and Service Systems of this Supplemental EIR, for a full discussion of water supply for the proposed project. As analyzed therein, full buildout of the proposed project would add a projected 339 AFY of water demand in the current year, which is approximately 1 percent of overall City water demand. However, the City would have sufficient supply to meet the current and projected demand of the proposed project during normal, single-dry, and multiple-dry years. In single-dry and multiple-dry years, the City would purchase additional imported water from MWD, which would be anticipated to be accommodated for all years as MWD projects 100% reliability in all future years. Thus, the proposed project would not substantially decrease groundwater supplies. In addition, because the project site is already developed with paved surfaces, development of the project would not interfere with groundwater recharge. Therefore, the project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge. The project impacts would be less than significant, consistent with the impacts disclosed in the GPU PEIR.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to groundwater supplies or recharge disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold HYD-2 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold HYD-2 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

HYD-3(i) 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? *[GPU PEIR Impact 5.9-1]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

As discussed in Threshold HYD-1, with compliance with the Construction General Permit during construction, implementation of LID/site design and BMPs to address post-construction stormwater runoff management, and development of a project specific WQMP as applicable, Impact 5.9-1 of the GPU PEIR concluded that impacts related to erosion would be less than significant.

Proposed Project Impact Analysis

Construction of the proposed project would require demolition of the existing building structures, including foundations, floor slabs, and utilities systems. In addition, excavation for subterranean parking structures would occur. These activities could temporarily alter the existing drainage pattern of the site and could result in flooding on- or offsite if drainage is not properly controlled.

As discussed in Threshold HYD-1, construction activities would comply with requirements of the Construction General Permit (as required by RR HYD-1), including a project specific SWPPP and associated BMPs. Further, as the project would disturb more than one acre of land, the project would be required to submit PRDs to the SWRCB. Construction dewatering discharges, if necessary, would also comply with the requirements of the Santa Ana RWQCB's Groundwater Discharge Permit. With adherence to the applicable permits and implementation of a project-specific SWPPP and associated BMPs, construction of the project would not substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial erosion or siltation on- or off-site.

As discussed in Chapter 3.1, Project Location and Setting, the project site is currently occupied by the South Coast Plaza Village commercial center and surface parking lots, mainly impervious surfaces. A variety of trees and a half-acre of landscaped lawn area are also contained on the 17.2-acre site which provide the project site's pervious areas. As discussed in Section 4.7.2, Environmental Setting, existing drainage from the project site generally discharges to Bear Street, South Plaza Drive, and Sunflower Avenue via surface flow to parkway drain or direct storm drain connections. The public storm drain network generally flows from north to south and from west to east around the project site. The proposed grading and storm drain network would be designed to match existing drainage and flow patterns. The project would integrate bio-filtration methods, pervious surfaces, and selective plant materials to encourage on-site water retention. Specifically, the project would result in approximately 85,214 square feet of pervious surfaces on the ground floor. The proposed project would incorporate the various planting concepts for the open space areas of the project (refer to Figure 3-14 of Chapter 3, Project Description). Specifically, drought-tolerant plants, California natives, and low-water turf would be utilized to provide pervious surfaces throughout The Village site.

As discussed in Threshold HYD-1, the proposed project would incorporate BMPs and LID measures following the local MS4 Permit requirements (RR HYD-4) and Orange County Technical Guidance Document (refer to Figures 3-15 and 3-16 in Chapter 3, Project Description). The project would comply with the Santa Ana Municipal Code (RR HYD-5) and the Construction General Permit (RR HYD-1) and prepare a WQMP to reduce impacts related to erosion or

siltation. Therefore, the project would not substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial erosion or siltation on- or off-site. Impacts resulting from the proposed project would be consistent with the impacts disclosed in the GPU PEIR, which were determined to be less than significant.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to substantial erosion or siltation disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold HYD-3(i) would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold HYD-3(i) were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

HYD-3(ii) 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: substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? *[GPU PEIR Impact 5.9-3]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

As detailed in Impact 5.9-3 of the GPU PEIR, the City is largely built out, and there are no major areas that are undeveloped. Therefore, peak flows would be decreased overall due to the implementation of landscaping requirements as well as LID features associated with water quality regulations. These features would increase pervious areas which would decrease stormwater flows. Specifically, the South Bristol Street Focus Area discharges to the Gardens Channel, which is listed for improvement in the Santa Ana MPD.

The City and County have policies in place for reviewing and permitting new developments. As part of the development process, detailed hydrology studies are required and, if necessary, on-site detention systems within the development can be required to match existing peak flows, thereby eliminating any potential increase in runoff. In addition, the City monitors its storm drain system for any segments that need immediate improvements and will regularly update its MPD to adequately plan for future drainage needs. The Orange County Public Works also updates its Capital Improvement Plan each year to ensure regional drainage facilities are functioning. Redevelopment projects under implementation of the GPU will provide additional opportunities for capital improvements. Therefore, the GPU PEIR concluded impacts due to development pursuant to the GPU would be less than significant.

Proposed Project Impact Analysis

Construction of the proposed project would require demolition of the existing building structures, including foundations, floor slabs, and utilities systems. In addition, excavation for subterranean

parking structures would occur. These activities could temporarily alter the existing drainage pattern of the site and could result in flooding on- or offsite if drainage is not properly controlled.

As discussed in Threshold HYD-1, construction activities would comply with requirements of the Construction General Permit (as required by RR HYD-1), including a project specific SWPPP and associated BMPs. Further, as the project would disturb more than one acre of land, the project would be required to submit PRDs to the SWRCB. Construction dewatering discharges, if necessary, would also comply with the requirements of the Santa Ana RWQCB's Groundwater Discharge Permit. With adherence to the applicable permits and implementation of a project-specific SWPPP and associated BMPs, construction of the project would not substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial erosion or siltation on- or off-site.

As discussed in Threshold HYD-3(i), the proposed project grading and storm drain network would be designed to match the existing drainage and flow patterns to best utilize the capacities available in the existing public storm drain system (refer to Figures 3-15 and 3-16 in Chapter 3, Project Description).

According to the MPD, South Plaza Drive and Sunflower Avenue are areas with known street and adjacent-site ponding of 6 to 12 inches during a 100-year storm. However, these segments have not been identified as areas of flooding concern. The MPD recommends upgrading the size of the existing storm drains in South Plaza Drive and Sunflower Avenue; however, the City does not currently have a schedule for these upgrades. Due to the high podium building drainage demand and the presence of multiple subterranean garage entrances, on-site drainage systems would be sized to contain the 100-year storm hydraulic grade line below the proposed finished surface to address the existing ponding issues, except at the public driveways where the ponding water is anticipated in the roadway during the 100-year storms. The project's grading and storm drain network design would ensure surface runoff, including ponding water at the public driveways, would not result in flooding on- and off-site and impacts would be less than significant. Impacts resulting from the proposed project would be consistent with the impacts disclosed in the GPU PEIR, which were determined to be less than significant.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to surface runoff disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold HYD-3(ii) would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold HYD-3(ii) were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

HYD-3 (iii) 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: 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? *[GPU PEIR Impact 5.9-3]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

As discussed in Threshold HYD-3(ii), future development incorporating LID features and landscaping requirements would overall reduce peak flows in the City and future projects under the GPU would require hydrology studies and stormwater management measures, as necessary. Therefore, Impact 5.9-3 of the GPU PEIR concluded impacts related to runoff water and stormwater drainage system capacity would be less than significant.

Proposed Project Impact Analysis

Construction of the proposed project could temporarily alter the existing drainage pattern of the site and result in runoff water or polluted runoff if drainage is not properly controlled. However, with adherence to the applicable permits (e.g., Construction General Permit and Santa Ana RWQCB's Groundwater Discharge Permit, if necessary), implementation of a project-specific SWPPP and associated BMPs, construction of the project would not substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial runoff water or polluted runoff.

As previously discussed, the proposed project grading and storm drain network would be designed to match the existing drainage and flow patterns to best utilize the capacities available in the existing public storm drain system (refer to Figures 3-15 and 3-16 in Chapter 3, Project Description). Depending on final design and flow modeling, the project may use underground detention systems and/or on-site drainage systems to contain excess flows. In addition, the project site would be required to implement bio-filtration as the primary water quality treatment method. During each phase of project development, the associated localized drainage and water quality systems dedicated to each building site would be confirmed during the design permitting phase with the City and constructed with each building before connecting to the on-site backbone storm drain system. Therefore, the project would not create or contribute runoff water, including ponding water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts would be less than significant and consistent with the impacts disclosed in the GPU PEIR, which were determined to be less than significant.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to the capacity of stormwater drainage systems disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold HYD-3(iii) would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold HYD-3(iii) were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

HYD-3(iv) ***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: impede or redirect flood flows?*** *[GPU PEIR Impact 5.9-4]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

Impact 5.9-4 of the GPU PEIR states that none of the focus areas are within the 100-year flood hazard area except the northeast corner of the West Santa Ana Boulevard Focus Area, which is proposed for low density residential. Development in these areas is restricted per the City's Municipal Code Chapter 7, Floodplain Management. Furthermore, the City and County regularly maintain and improve storm drain and flood control infrastructure based on priority, and new developments will comply with all pertinent flood control regulation. The GPU policies encourage consultation with regional agencies to maintain the most current flood hazard and floodplain information, to use the information as a basis for project review and to guide development in accordance with regional, state, and federal standards. Therefore, Impact 5.9-4 of the GPU PEIR concluded with adherence to the City's Municipal Code and the GPU policies, impacts related to flood flows would be less than significant.

Proposed Project Impact Analysis

As discussed previously, with adherence to the applicable permits (e.g., Construction General Permit and Santa Ana RWQCB's Groundwater Discharge Permit, if necessary), implementation of a project-specific SWPPP and associated BMPs, construction of the project would not substantially alter the existing drainage pattern of the site or area in a manner which would impede or redirect flood flows.

As discussed in Section 4.7.2, Environmental Setting, the project site is not located within a Special Flood Hazard Area, defined as the area that will be inundated by the base flood or 100-year flood. Therefore, the potential for project facilities to impede or redirect flood flows is considered low and impacts would be less than significant. Impacts resulting from the proposed project would be consistent with the impacts disclosed in the GPU PEIR, which were determined to be less than significant.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to impeding or redirecting flood flows in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold HYD-3(iv) would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold HYD-3(iv) were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

HYD-4 Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? *[GPU PEIR Impact 5.9-4]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

As discussed in Threshold HYD-3(iv), as most of the City is not located within the 100-year flood hazard area and future development would adhere to the City's Municipal Code and GPU policies, Impact 5.9-4 of the GPU PEIR determined impacts related to flood hazards would be less than significant.

According to Impact 5.9-4 of the GPU PEIR, parts of the South Bristol Street Focus Area are located within the inundation areas of the Santiago Creek Dam and the Prado Dam. Dams in California are monitored and inspected annually by the California Division of Safety of Dams (DSOD). In addition, dam owners are required to maintain Emergency Action Plans (EAP) that include procedures for damage assessment and emergency warnings. An EAP identifies potential emergency conditions at a dam and specifies preplanned actions to help minimize property damage and loss of life should those conditions occur. EAPs contain procedures and information that instruct dam owners to issue early warning and notification messages to downstream emergency management authorities. Santiago Creek dam is certified by DSOD to safely impound water to the elevation associated with the dam's capacity. The dam has been assessed by DSOD to have no existing or potential dam safety deficiencies. Acceptable performance is expected under all loading conditions (static, hydrologic, seismic) in accordance with the applicable regulatory criteria or tolerable risk guidelines. Therefore, Impact 5.9-4 of the GPU PEIR concluded impacts due to inundation by Santiago Creek Dam are less than significant.

Prado Dam operates an EAP in accordance with DSOD's requirements and is governed by the USACE Dam Safety Program to maintain public safety. The USACE has characterized Prado Dam as a high urgency risk, and their assessment of the dam has identified performance concerns that require attention to meet the USACE's rigorous dam safety standards. The dam, which is typically dry, has historically operated without incident. The USACE is working with a national team to reduce the risks associated with the spillway and to modify the dam to provide additional capacity for storage of floodwaters and sediment. Therefore, Impact 5.9-4 of the GPU PEIR concluded impacts due to inundation by Prado Dam are less than significant.

According to the GPU PEIR, the Prado Reservoir, Irvine Lake, and the Santiago Creek Recharge Basins could generate seiches as the result of an earthquake or other disturbance for focus areas within the dam inundation zones, but the flooding impact would be of less magnitude than the dam inundation zones. Additionally, the City is about 5 miles inland from the Pacific Ocean; thus, the chances of a tsunami impacting the plan area are negligible. Impact 5.9-4 of the GPU PEIR concluded impacts related to flood hazards, tsunami, or seiche zones would be less than significant.

Proposed Project Impact Analysis

As discussed previously, the project site is not located within a Special Flood Hazard Area and the risk of flood hazard is low. Tsunamis affect low-lying areas along the coastline. As the project

site is located approximately 6 miles from the coastline, the risk of tsunami hazard is low. The project site is within the inundation area of the Santiago Creek and the Prado Dam. However, as stated in the GPU PEIR, the USACE and DSOD have ongoing assessments and measures to certify dam efficiencies, and Santiago Creek and Prado Dam are required to maintain EAPs, which would help minimize property damage and loss of life in emergency conditions. Therefore, the risk of project inundation is low and impacts would be less than significant. Impacts resulting from the proposed project would be consistent with the impacts disclosed in the GPU PEIR.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to release of pollutants due to project inundation in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold HYD-4 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold HYD-4 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

HYD-5 ***Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*** *[GPU PEIR Impact 5.9-5]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to Impact 5.9-5 of the GPU PEIR, new development and redevelopment pursuant to the GPU would implement the requirements of the Construction General Permit, the Orange County MS4 Permit, and Chapter 18 Article IV of the City's Municipal Code. Adherence to these regulatory requirements would ensure that surface and groundwater quality are not adversely impacted during construction and operation of development pursuant to the GPU. As a result, site development will not obstruct or conflict with the implementation of the Santa Ana River Basin Water Quality Control Plan. Proposed development will be connected to the City's public water supply, and there will be no on-site wells for use of groundwater. The City manages potable and non-potable supplies to ensure withdrawals from the Orange County Groundwater Basin do not exceed the safe yield for the Basin. Increased demand due to development pursuant to the GPU would not adversely impact the sustainable management of the basin. Therefore, Impact 5.9-5 of the GPU PEIR concluded the project would not obstruct or conflict with the Basin 8-1 Alternative Plan, and impacts would be less than significant.

Proposed Project Impact Analysis

Similar to the GPU PEIR, the project would adhere to the requirements of the Construction General Permit, Orange County MS4 Permit, and the City's Municipal Code as required by RR HYD-1, HYD-4, and HYD-5, to reduce impacts to surface and groundwater quality. Water supply for the project would be provided by connections to the existing City utility infrastructure and not by groundwater wells. The project's projected water demand would be sufficiently accommodated

by the City's water supply. Therefore, the proposed project would not obstruct or conflict with a water quality control plan or sustainable groundwater management plan. Impacts would be less than significant and consistent with the impacts disclosed in the GPU PEIR.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to implementation of a water quality control plan or sustainable groundwater management plan in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold HYD-5 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold HYD-5 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

4.7.6 CUMULATIVE IMPACTS

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to the GPU PEIR, the extent of analysis of cumulative impacts for hydrology and water quality is contiguous with the Anaheim Bay–Huntington Harbor, Santa Ana River, and Newport Bay Watersheds (watersheds) and the OC Basin, and flood impacts would be contiguous with the City and sphere of influence boundary (which includes a portion of the Santa Ana River Drainage Channel). The GPU PEIR did not identify any significant cumulative impacts related to hydrology and water quality.

Proposed Project Impact Analysis

Water Quality

The cumulative scenario for the proposed project includes buildout of the GPU and the 32 related projects.[9] The impaired water bodies of the Upper and Lower Newport Bay are adverse cumulative conditions to which buildout of the GPU and the related projects would contribute. Construction activities associated with GPU buildout and the related projects have the potential to convey soils and other pollutants into municipal storm drains. During operation of these projects, stormwater runoff from project sites could introduce or increase pollutants that could runoff into municipal storm drains. However, projects developed pursuant to the GPU and the related projects within the watersheds would be required to implement water quality control measures pursuant to the NPDES General Construction Permit, such as implementation of a SWPPP (for projects disturbing greater than one acre), a WQMP (for development and redevelopment projects), and BMPs to eliminate or reduce the discharge of pollutants in stormwater discharges, reduce runoff, reduce erosion and sedimentation, and increase filtration and infiltration. The NPDES permit requirements have been set by the SWRCB and implemented

[9] Twenty of the 32 related projects are located within the City of Santa Ana, and thus, are included as part of the GPU buildout.

by the RWQCB and the Orange County DAMP to reduce incremental effects of individual projects so that they would not result in significant cumulative impacts.

Similarly, and as discussed above in Section 4.7.5, Project Impacts, implementation of the proposed project would adhere to the requirements of the Construction General Permit, MS4 Permit, and local plans and result in less than significant impacts related to water quality. Additionally, the project site drains to the Santa Ana Delhi Channel, which does not have 303(d) listed impairments. Therefore, the proposed project's contribution to cumulative impacts associated with water quality would not be cumulatively considerable, and, as such, cumulative impacts associated with water quality would be less than significant.

Stormwater Drainage

The geographic scope for cumulative impacts related to stormwater drainage includes the watersheds. Projects developed pursuant to the GPU buildout and related projects within the watersheds would be required to undergo development and review processes and require hydrology studies, as needed, to assess stormwater runoff and drainage. Therefore, the potential cumulative impacts to stormwater drainage by GPU buildout and the related projects would be less than significant.

As discussed in Section 4.7.5, Project Impacts, the project's grading and storm drain network design would ensure less than significant impacts related to stormwater runoff, as it would be designed to match the existing drainage and flow patterns to best utilize the capacities available in the existing public storm drain system. Furthermore, as the site is currently entirely impervious, with the exception of landscaped areas, the proposed project would not increase the amount of impervious surface onsite. As a result, the proposed project would not generate a substantial increase in runoff. Therefore, the proposed project's contribution to cumulative impacts associated with stormwater drainage impacts would not be cumulatively considerable, and as such, cumulative impacts associated with stormwater drainage would be less than significant.

Groundwater

The geographic scope for cumulative impacts related to the groundwater is the OC Basin. As discussed in Section 4.7.5, Project Impacts, the City has sufficient supply to meet the current and projected demand during normal, single-dry, and multiple-dry years and groundwater recharge and levels are managed by the OCWD. The projected water demand from the GPU at buildout is well within the projected total water demand for 2040 in the 2015 Urban Water Management Plan for normal, dry year, and multiple dry year scenarios. Additionally, as the other related projects in the cities of Irvine and Costa Mesa are within the OC Basin, it is assumed that the projected total water demand for 2040 in the 2015 Urban Water Management Plan for normal, dry year, and multiple dry year scenarios would be sufficient for the related projects. Therefore, there would be sufficient water supply for development under the GPU buildout and related projects and cumulative impacts related to groundwater would be less than significant.

The projected water demand from the GPU at buildout includes the project site. The City would have sufficient supply to meet the current and projected demand of the proposed project during normal, single-dry, and multiple-dry years. Moreover, the proposed project would not directly withdraw water from the OC Basin and would not affect any groundwater recharge areas/facilities. Therefore, the proposed project's contribution to cumulative impacts on groundwater would not be cumulatively considerable, and as such, cumulative impacts associated with groundwater would be less than significant.

Flood Hazards

The geographic scope for flood impacts would be contiguous with the City and sphere of influence boundary. As discussed in Section 4.7.5, Project Impacts, most of the City is not located within the 100-year flood hazard area. The related projects would adhere to their respective Municipal Codes for the Cities of Santa Ana, Irvine, and Costa Mesa, which restrict development in the flood hazard area. Specifically, the City of Irvine's Municipal Code Title 13, Article 10, Floodway and Floodplain Districts and the City of Costa Mesa's Municipal Code, Division 5, Chapter 5-2, Floodplain Districts address permitted uses within flood hazard zones. Mandatory compliance with each city's Municipal Code would ensure that buildout of the GPU and the related projects would result in less than significant cumulative impacts related to flood hazards.

Similar to the GPU buildout, which includes projects within the City of Santa Ana, the proposed project would adhere to the City's Municipal Code, restricting development in the flood hazard area. Further, the Santiago Creek and Prado Dams have ongoing assessments by the DSOD and USACE for safety with EAPs which would help minimize property damage and loss of life in emergency conditions. Therefore, the proposed project's contribution to cumulative flood hazard impacts would not be cumulatively considerable, and as such, cumulative impacts associated with flood hazards would be less than significant.

MITIGATION MEASURES

Cumulative impacts related to hydrology and water quality would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Cumulative impacts related to hydrology and water quality were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

4.8 LAND USE AND PLANNING

This section analyzes the project's potential impacts with regard to physical division of an established community and conflicts with applicable land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating an environmental effect. As the project pursues buildout of part of the City's GPU Land Use Plan, which was analyzed in the GPU PEIR, this section compares the project's impacts with the impacts identified in the GPU PEIR.

4.8.1 REGULATORY FRAMEWORK

STATE

California Planning and Zoning Law — General Plans

Pursuant to Government Code Section 65300, each planning agency is required to prepare a comprehensive, long-term general plan for the physical development of the county or city, and of any land outside its boundaries which in the planning agency's judgment bears relation to its planning. The legislative body of each county and city is responsible for adoption of the plan. Pursuant to Government Code Section 65302, the general plan consists of a statement of development policies and includes diagrams and text setting forth objectives, principles, standards, and the plan's proposals. The plan shall also include the following elements: land use, circulation, housing, conservation, open space, noise, safety, and environmental justice.

The purpose of a general plan is to guide land use planning decisions. Under state law, subdivisions, capital improvements, development agreements, and many other land use actions must be consistent with the adopted general plan. In counties and general law cities, zoning and specific plans are also required to conform to the general plan. In addition, preparing, adopting, implementing, and maintaining the general plan serves to identify the community's land use, circulation, environmental, economic, and social goals and policies as they relate to future growth and development.[1]

Under State Planning and Zoning law (Government Code Section 65000, et seq.), strict conformity with all aspects of a plan is not required. Generally, plans reflect a range of competing interests and agencies are given great deference to determine consistency with their own plans. As discussed in the General Plan Guidelines (2017) prepared by California Office of Planning and Research, a proposed project should be considered consistent with a general plan or elements of a general plan if it furthers one or more policies and does not obstruct other policies.[2] Further, as affirmed in *Sequoyah Hills Homeowners Association v. City of Oakland*, state law does not require an exact match between a project and the applicable general plan. Rather, to be "consistent," the project must be "compatible with the objectives, policies, general land uses, and programs specified in the applicable plan," meaning that a project must be in "agreement or harmony" with the applicable land use plan to be consistent with that plan, but need not be in perfect conformity with every plan policy.[3]

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1 California Office of Planning and Research, 2017, General Plan Guidelines, Chapter 2: A Vision for Long-Range Planning, available at: https://lci.ca.gov/docs/OPR_C2_final.pdf.

2 California Office of Planning and Research, 2017, General Plan Guidelines, Chapter 9: Implementation, available at: https://lci.ca.gov/docs/OPR_C9_final.pdf.

3 Sequoyah Hills Homeowners Association v. City of Oakland (1993) 23 Cal.App.4th 704, 719, available at: https://caselaw.findlaw.com/court/ca-court-of-appeal/1760927.html.

REGIONAL

Southern California Association of Governments Final 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy

The Southern California Association of Governments (SCAG) is designated by federal law as a Metropolitan Planning Organization 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 transportation and housing strategies for Southern California as a whole.

On September 3, 2020, SCAG's Regional Council adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 RTP/SCS, Connect SoCal), which includes long-range regional transportation plans, regional transportation improvement programs, regional housing needs allocations, and other plans for the region. Most of the plan's goals are related to regional transportation infrastructure and the efficiency of transportation in the region. The 2020-2045 RTP/SCS sustainable community land use-related goals, principles, and strategies noted below are intended to be supportive of implementing the RTP/SCS. Several are directly tied to supporting related GHG reductions while others support the broader goals of 2020-2045 RTP/SCS:

Goals

- **Goal 1**: Encourage regional economic prosperity and global competitiveness.
- **Goal 2**: Improve mobility, accessibility, reliability, and travel safety for people and goods.
- **Goal 3**: Enhance the preservation, security, and resilience of the regional transportation system.
- **Goal 4**: Increase person and goods movement and travel choices within the transportation system.
- **Goal 5**: Reduce greenhouse gas emissions and improve air quality.
- **Goal 6**: Support healthy and equitable communities.
- **Goal 7**: Adapt to a changing climate and support an integrated regional development pattern and transportation network.
- **Goal 8**: Leverage new transportation technologies and data-driven solutions that result in more efficient travel.
- **Goal 9**: Encourage development of diverse housing types in areas that are supported by multiple transportation options.
- **Goal 10**: Promote conservation of natural and agricultural lands and restoration of habitats.

Principles

- **Principle 1**: Base transportation investments on adopted regional performance indicators and MAP-21/FAST Act regional targets.
- **Principle 2**: Place high priority for transportation funding in the region on projects and programs that improve mobility, accessibility, reliability, and safety, and that preserve the existing transportation system.

- **Principle 3**: Assure that land use and growth strategies recognize local input, promote sustainable transportation options, and support equitable and adaptable communities.
- **Principle 4**: Encourage RTP/SCS investments and strategies that collectively result in reduced non-recurrent congestion and demand for single occupancy vehicle use, by leveraging new transportation technologies and expanding travel choices.
- **Principle 5**: Encourage transportation investments that will result in improved air quality and public health, and reduced greenhouse gas emissions.
- **Principle 6**: Monitor progress on all aspects of the Plan, including the timely implementation of projects, programs, and strategies.
- **Principle 7**: Regionally, transportation investments should reflect best-known science regarding climate change vulnerability, in order to design for long-term resilience.

Strategies

- **Focus Growth Near Destinations & Mobility Options**
    - Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations.
    - Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets.
    - Plan for growth near transit investments and support implementation of first/last mile strategies.
    - Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses.
    - Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods.
    - Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed-uses or locating and orienting close to existing destinations).
    - Identify ways to “right size” parking requirements and promote alternative parking strategies (e.g., shared parking or smart parking).
- **Promote Diverse Housing Choices**
    - Preserve and rehabilitate affordable housing and prevent displacement.
    - Identify funding opportunities for new workforce and affordable housing development.
    - Create incentives and reduce regulatory barriers for building context-sensitive accessory dwelling units to increase housing supply.
    - Provide support to local jurisdictions to streamline and lessen barriers to housing development that supports reduction of greenhouse gas emissions.
- **Leverage Technology Innovations**
    - Promote low emission technologies such as neighborhood electric vehicles, shared rides hailing, car sharing, bike sharing and scooters by providing supportive

and safe infrastructure such as dedicated lanes, charging and parking/drop-off space.

- Improve access to services through technology—such as telework and telemedicine as well as other incentives such as a "mobility wallet," an app-based system for storing transit and other multi-modal payments.
- Identify ways to incorporate "micro-power grids" in communities, for example solar energy, hydrogen fuel cell power storage and power generation.

- **Support Implementation of Sustainability Policies**
  - Pursue funding opportunities to support local sustainable development implementation projects that reduce greenhouse gas emissions.
  - Support statewide legislation that reduces barriers to new construction and that incentivizes development near transit corridors and stations.
  - Support local jurisdictions in the establishment of Enhanced Infrastructure Financing Districts (EIFDs), Community Revitalization and Investment Authorities (CRIAs), or other tax increment or value capture tools to finance sustainable infrastructure and development projects, including parks and open space.
  - Work with local jurisdictions/communities to identify opportunities and assess barriers to implement sustainability strategies.
  - Enhance partnerships with other planning organizations to promote resources and best practices in the SCAG region.
  - Continue to support long range planning efforts by local jurisdictions.
  - Provide educational opportunities to local decisionmakers and staff on new tools, best practices, and policies related to implementing the Sustainable Communities Strategy.
- **Promote a Green Region**
  - Support development of local climate adaptation and hazard mitigation plans, as well as project implementation that improves community resiliency to climate change and natural hazards.
  - Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration.
  - Integrate local food production into the regional landscape.
  - Promote more resource efficient development focused on conservation, recycling, and reclamation.
  - Preserve, enhance, and restore regional wildlife connectivity.
  - Reduce consumption of resource areas, including agricultural land.
  - Identify ways to improve access to public park space.

The 2020-2045 RTP/SCS identifies Priority Growth Areas (PGAs) that follow the principles of "center-focused placemaking," including "locations where many RTP/SCS strategies can be fully realized." The 2020-2045 RTP/SCS identifies several types of PGAs—Job Centers, Transit Priority Areas (TPAs), High-Quality Transit Areas, Neighborhood Mobility Areas, Livable Corridors, and Spheres of Influence —that account for only 4 percent of region's total land area,

while accommodating 64 percent of forecasted household growth and 74 percent of forecasted employment growth between 2016 and 2045. The purpose of this more compact form of regional development is to:

- Reduce travel distances;
- Increase mobility options;
- Improve access to workplaces; and
- Conserve the region's resource areas.

TPAs are within one half-mile of existing or planned 'major' transit stops. The 2020-2045 RTP/SCS envisions TPAs as areas where "transit oriented development can be realized – where people can live, work and play in higher density, compact communities with ready access to a multitude of safe and convenient transportation alternatives." The 2020-2045 RTP/SCS states that focusing regional growth in areas with planned or existing transit stops is "key to achieving equity, economic, and environmental goals. Infill within TPAs can reinforce the assets of existing communities, efficiently leveraging existing infrastructure and potentially lessening impacts on natural and working lands. Growth within TPAs supports RTP/SCS strategies for preserving natural lands and farmlands and alleviates development pressure in sensitive resource areas by promoting compact, focused infill development in established communities with access to high-quality transportation." The 2020-2045 RTP/SCS describes that TPAs comprise less than 1 percent of Southern California's land area, while accommodating approximately 30 percent of projected new households within Southern California between 2020 and 2045.

Orange County Council of Governments

The Orange County Council of Governments (OCCOG) is the County's sub-regional planning organization. OCCOG is a voluntary joint-powers agency that provides a vehicle for member agencies to engage cooperatively on county issues. OCCOG also conducts studies and projects designed to improve and coordinate common governmental responsibilities across the county. OCCOG representatives also serve on SCAG committees and coordinates with SCAG to develop allocations of housing needs.

Airport Environs Land Use Plan for John Wayne Airport (SNA)

John Wayne Airport (SNA) is within the oversight of the Orange County Airport Land Use Commission (ALUC). The ALUC is required to prepare and adopt an airport land use plan for each of the airports within its jurisdiction. The ALUC prepared the Airport Environs Land Use Plan (AELUP) for John Wayne Airport (SNA) (amended April 17, 2008).[4] The AELUP intends "to safeguard the general welfare of the inhabitants within the vicinity of the airport and to ensure the continued operation of the airport. Specifically, the plan seeks to protect the public from the adverse effects of aircraft noise, to ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and to ensure that no structures or activities adversely affect navigable airspace."

Land uses within the AELUP planning area boundaries are required to conform to safety, noise, and height restrictions. Public Utilities Code Section 21675(c) requires establishing an airport influence area as the planning area boundary affected by aircraft operations, within which proposed land use projects are to be referred to the ALUC for review. Generally, the furthest

[4] Orange County Airport Land Use Commission, 2008, Orange County Land Use Plan for John Wayne Airport, available at: https://files.ocair.com/media/2021-02/JWA_AELUP-April-17-2008.pdf.

extent of the airport influence area encompasses the 60 community noise equivalent level (CNEL) contour and the FAR Part 77 Imaginary Obstruction Surfaces for the airport.

Building Height Restrictions

The FAA is responsible for protecting and preserving airspace from hazards to air navigation. FAR Part 77 defines the regulations and process for providing these protections and the standards used to determine obstructions to air navigation that may affect the safe and efficient use of navigable airspace. Generally, the regulation requires that notice be given to the FAA if there is a proposal to construct a structure that would exceed the 100:1 slope of an imaginary surface extending outward for 20,000 feet from the nearest runway at SNA or for any project that will be more than 200 feet in height above the ground level.

Airport Environs Land Use Plan Policies

The following policies in the AELUP for SNA are relevant to the proposed project:

Policy 3.2.1 General Policy: Within the boundaries of the AELUP, any land use may be found to be inconsistent with the AELUP which:

1. Places people so that they are affected adversely by aircraft noise,
2. Concentrates people in areas susceptible to aircraft accidents,
3. Permits structures of excessive height in areas which would affect adversely the continued operation of the airport, or
4. Permits activities or facilities that would affect adversely aeronautical operations.

Policy 3.2.6 Height Restriction Zone: Any object, which by reason of its height or location would interfere with the established, or planned, airport flight procedures, patterns, or navigational systems, is unacceptable to the Commission. Similarly, any proposal which would cause a diminution in the utility of an airport is unacceptable to the Commission. The standards, criteria, and procedures promulgated by the FAA for the thorough evaluation of development projects are designed to ensure the safe and efficient use of the navigable airspace. The application of these principles by the Commission will ensure the stability of local air transportation, as well as promote land uses that are compatible with the airport environs. However, any object which rises above the height of surrounding development, or which is located in close proximity to any of the various flight paths, must be clearly visible during hours of twilight or darkness and must not threaten, endanger, or interfere with aeronautical operations. Such objects, even if within the above height restrictions, are not acceptable to the Commission unless they are clearly marked or lighted according to FAA standards.

Policy 3.2.7 Airspace/Airport Inconsistency: Any structure, either within or outside of the planning area, is inconsistent with this AELUP if it:

1. Is determined to be a "Hazard" by the FAA;
2. Would raise the ceiling or visibility minimums at an airport for an existing or planned instrument procedure (i.e., a procedure consistent with the FAA approved airport layout plan or a proposed procedure formally on file with the FAA);
3. Would result in a loss in airport utility, e.g., in a diminution of the established operational efficiency and capacity of the airport, such as by causing the usable length of the runway(s) to be reduced; or

4. Would conflict with airspace used for the airport traffic pattern or enroute navigation to and from the airport.

Policy 3.3.6: Condition which may serve to mitigate a project/action and thus may permit the ALUC to make a finding of consistency includes providing noticing that states:

> "Notice of Airport in Vicinity. This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you."

Prior to the amendment of a general plan or specific plan, or the adoption or approval of a zoning ordinance or building regulation within the planning boundary established by the ALUC, the local agency shall first refer the proposed action to the ALUC, pursuant to California Public Utilities Code Section 21676. If the ALUC determines that the proposed action is inconsistent with the airport land use plan, the referring agency shall be notified. The local agency may, after a public hearing, propose to overrule the ALUC by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article, which are to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.

At least 45 days prior to the decision to overrule the determination of the ALUC, the local agency governing body shall provide the ALUC and the Caltrans Division of Aeronautics (Division) with a copy of the proposed decision and findings. The ALUC and the Division may provide comments to the local agency governing body within 30 days of receiving the proposed decision and findings. If the ALUC's or the Division's comments are not available within this time limit, the local agency governing body may act without them. The comments by the ALUC or Division are advisory to the local agency governing body.

Under the process for filing a project consistency determination with the ALUC, if the ALUC determines that a submittal is inconsistent with the AELUP, the ALUC shall promptly notify the affected local agency. The local agency may modify the project to be consistent with the AELUP and resubmit the project to the ALUC for a determination of consistency, or choose to overrule the ALUC by following the procedure in Public Utilities Code Sections 21676 and 21676.5. This procedure requires the local agency to hold a public hearing on the matter by its governing body (e.g., Board of Supervisors, City Council), make specific findings that the proposed overruling is consistent with the purposes stated in Public Utilities Code Section 21670, and overrule the ALUC by at least a two-thirds vote of the governing body of the local agency.

LOCAL

City of Santa Ana General Plan Update

The GPU is the City's principal long-range policy and planning document guiding the development, conservation, and enhancement of Santa Ana. The GPU was adopted by the City in 2022 and contains ten elements that provide a comprehensive collection of goals and policies related to the physical development of the City: Community, Mobility, Economic Prosperity, Public

Services, Conservation, Open Space, Noise, Safety, Land Use, Historic Preservation, Urban Design. The GPU elements, including their goals and policies, which are relevant to the proposed project are listed below.

Land Use Designation

The project site has a General Plan Land Use designation of District Center-High (DC-5). The GPU Land Use Element describes that the District Center designation includes the major activity areas of the City of Santa Ana, designed to serve as anchors to the City's commercial corridors and to accommodate major development activity. District Center-High is a mixed-use designation identified in the GPU as including "Transit oriented and high-density urban villages consisting of visually striking and dynamic buildings and spaces with a wide range and mix of residential, live-work, commercial, hotel, and employment-generating uses."

Table LU-8 of the GPU identifies the DC-5 area as allowing a maximum floor area ratio of 5.0, or 125 dwelling units per acre and a maximum height of 25 stories. The GPU's District Center designation allows up to 8,733,780 square feet of mixed uses, inclusive of residential uses, based on the maximum floor area ratio of 5.0 over the approximately 41.13-gross-acre site.

Focus Area

The City has identified five focus areas within the City that are most suitable for new development.

As described in the GPU Land Use Element, the focus areas are geographically distributed throughout the City, and each allows Santa Ana to meet its diverse needs in different ways. The project site is within the South Bristol Street Focus Area (Focus Area), which is bordered by Warner Avenue to the north, Sunflower Avenue to the south, and is generally centered along Bristol Street which is located in a north-south alignment down the center. The Focus Area is identified in the GPU as Santa Ana's southern gateway and is a part of the South Coast Metro area between Sunflower and Alton Avenues. The GPU identifies the Focus Area as suited for redevelopment or overall improvement, and that the area should allow for the changing economy and provide for a jobs-housing balance. The GPU identifies that the goals for the Focus Area are to:

- Capitalize on the success of the South Coast Metro area.
- Introduce mixed-use urban villages and encourage experiential commercial uses that are more walkable, bike friendly, and transit oriented.
- Realize an intense, multistory presence along the corridor.
- Provide for mixed-use opportunities while protecting adjacent, established low density neighborhoods.

Regulatory Requirements

The City's GPU includes regulatory requirements (RR), goals, and policies related to land use and planning. The following RRs, goals, and policies are applicable to the proposed project. Regarding applicable RRs, the RRs listed under the GPU PEIR Land Use Section 5.10.3 are listed here; refer to Sections 4.1 through 4.15 of this Supplemental EIR for all applicable RRs for the project.

RR LU-1: Development associated with the General Plan Update would be designed and constructed in accordance with the applicable provisions of Chapter 41 (Zoning) of the City of Santa Ana Municipal Code. Development within specific plan areas, overlay areas, and specific

development districts would implement zoning and development standards that are applicable within these subareas in addition to those in the underlying zoning district.

RR HAZ-7: Development will be designed and constructed in accordance with the airport environs land use plan (AELUP) for John Wayne Airport. Building height restrictions, as specified in the AELUP, would apply in the city.

Community Element

Goal CM-1 Recreation and Culture: Provide opportunities for public and private recreation and cultural programs that meet the needs of Santa Ana's diverse population.

- *Policy CM-1.5 Equitable Recreational Spaces:* Promote the development and use of municipal buildings, indoor facilities, sports fields, and outdoor spaces for recreation that serve residents throughout the city, with priority given to areas that are underserved and/or within environmental justice area boundaries.
- *Policy CM-1.6 Recreation on Private Property:* Promote the development and use of privately-owned recreation and entertainment facilities that help meet the needs of Santa Ana residents.

Goal CM-3 Active Living and Well-Being: Promote the health and wellness of all Santa Ana residents.

- *Policy CM-3.2 Healthy Neighborhoods:* Continue to support the creation of healthy neighborhoods by addressing public safety, land use conflicts, hazardous soil contamination, incompatible uses, and maintaining building code standards.
- *Policy CM-3.8 Underutilized Spaces:* Repurpose underutilized spaces and City-owned vacant land as a strategy to improve community health and increase the number and accessibility of opportunities for health and recreation activities. Prioritize the redevelopment of such sites within environmental justice area boundaries and other areas underserved by parks and recreation opportunities.

Mobility Element

Goal M-1 Comprehensive Circulation: A comprehensive and multimodal circulation system that facilitates the safe and efficient movement of people, enhances commerce, and promotes a sustainable community.

- *Policy M-1.2 Balanced Multimodal Network:* Provide a balanced and equitable multimodal circulation network that reflects current and changing needs.
- *Policy M-1.6 Complete Streets:* Transform travel ways to accommodate all users through street design and amenities, such as sidewalks, trees, landscaping, street furniture, and bus shelters.
- *Policy M-1.7 Proactive Mitigation:* Proactively mitigate existing and new potential air quality, noise, congestion, safety, and other impacts from the transportation network on residents and business, especially in environmental justice communities.
- *Policy M-1.8 Environmental Sustainability:* Consider air and water quality, noise reduction, neighborhood character, and street-level aesthetics when making improvements to travelways.

Goal M-3 Active Transportation: A safe, balanced, and integrated network of travelways for nonmotorized modes of transportation that connects people to activity centers, inspiring healthy and active lifestyles.

- *Policy M-3.1 Nonmotorized Travelway Network:* Expand and maintain a citywide network of nonmotorized travelways within both the public and private realms that create linkages between neighborhoods, recreational amenities, schools, employment centers, neighborhood serving commercial, and activity centers.
- *Policy M-3.2 Nonmotorized Travelway Amenities:* Enhance nonmotorized travelways with amenities such as landscaping, shade trees, lighting, benches, crosswalks, rest stops, bicycle parking, and support facilities that promote a pleasant and safe experience.
- *Policy M-3.6 Transit Connectivity:* Enhance first and last mile connectivity to transit facilities through safe, accessible, and convenient linkages.

Goal M-4 Transportation, Land Use, and Design: Coordinated transportation planning efforts with land use and design strategies that encourage sustainable development and achieve broader community goals.

- *Policy M-4.4 Fair Share Impacts:* Ensure that all development projects pay their fair share of the system improvements necessary to accommodate the transportation needs of their projects.
- *Policy M-4.5 Land Use Development Design:* Ensure that building placement and design features create a desirable and active streetscape, by prioritizing pedestrian access directly from the street and placing parking lots to the rear of a development site.
- *Policy M-4.6 Roadway Capacity Alternatives:* Promote reductions in automobile trips and vehicle miles traveled by encouraging transit use and nonmotorized transportation as alternatives to augmenting roadway capacity.
- *Policy M-4.8 Noise Mitigation:* Encourage physical and operational improvements to reduce noise levels around major roads, freeways, and rail corridors, in particular around sensitive land uses.
- *Policy M-4.9 Air Pollution Mitigation:* Utilize land use, building, site planning, and technology solutions to mitigate exposure to transportation-related air pollution, especially in environmental justice focus areas.

Goal M-5 Sustainable Transportation Design: A transportation system that is attractive, safe, state-of-the-art, and supports community, environmental, and conservation goals.

- *Policy M-5.1 Enhanced Street Design:* Improve the beauty, character, and function of travelways with amenities such as landscaped parkways and medians, bike lanes, public art, and other amenities.
- *Policy M-5.4 Green Streets:* Leverage opportunities along streets and public rights-of-way to improve water quality through use of landscaping, permeable pavement, and other best management practices.
- *Policy M-5.6 Clean Fuels and Vehicles*: Encourage the use of alternative fuel vehicles and mobility technologies through the installation of supporting infrastructure.

Economic Prosperity Element

Goal EP-1 Job Creation and Retention: Foster a dynamic local economy that provides and creates employment opportunities for all residents in the city.

- *Policy EP 1.2 Attract Business*: Strengthen and expand citywide business attraction efforts in order to achieve the city's full employment potential.

Goal EP-3 Business Friendly Environment: Promote a business friendly environment where businesses thrive and build on Santa Ana's strengths and opportunities.

- *Policy EP-3.4 Complete Communities*: Encourage the development of "complete communities" that provide a range of housing, services, amenities, and transportation options to support the retention and attraction of a skilled workforce and employment base.
- *Policy EP-3.10 Rethinking Strip-Commercial*: Promote the creation of distinctive neighborhood serving districts through the renovation or redevelopment of existing strip-commercial development.

Public Services Element

Goal PS-1 Public Facilities: Provide quality and efficient facilities that are adequately funded, accessible, safe, and strategically located.

- *Policy PS-1.10 Fair Share:* Require that new development pays its fair share of providing improvements to existing or creating new public facilities and their associated costs and services.

Goal PS-2 Public Safety: Preserve a safe and secure environment for all people and property.

- *Policy PS-2.1 Public Safety Agencies:* Collaborate with the Police Department and the Fire Authority to promote greater public safety through implementing Crime Prevention through Environmental Design (CPETD) principles for all development projects.
- *Policy PS-2.2 Code Compliance:* Require all development to comply with the provisions of the most recently adopted fire and building codes and maintain an ongoing fire inspection program to reduce fire hazards.

Goal PS-3 Utility Infrastructure: Supply, maintain, and expand City services and infrastructure improvements through innovative funding options and sustainable practices.

- *Policy PS-3.5 Green Infrastructure:* Incorporate sustainable design and Low Impact Development (LID) techniques for stormwater facilities and new development to achieve multiple benefits, including enhancing, preserving, and creating open space and habitat; reducing flooding; and improving runoff water quality.
- *Policy PS-3.8 Conservation Strategies*: Promote cost-effective conservation strategies and programs that increase water use efficiency.
- *Policy PS-3.10 Development Projects:* Encourage new development and reuse projects to incorporate recycling and organics collection activities aligned with state waste reduction goals.
- *Policy PS-3.12 Sewer and Water:* Maintain and upgrade sewer and water infrastructure through impact fees from new development and exploring other funding sources.

Conservation Element

Goal CN-1 Air Quality and Climate: Protect air resources, improve regional and local air quality, and minimize the impacts of climate change.

- *Policy CN-1.6 New and Infill Residential Development:* Promote development that is mixed use, pedestrian friendly, transit oriented, and clustered around activity centers.
- *Policy CN-1.7 Housing and Employment Opportunities:* Improve the city's jobs/housing balance ratio by supporting development that provides housing and employment opportunities to enable people to live and work in Santa Ana.
- *Policy CN-1.8 Promote Alternatives Transportation:* Promote use of alternate modes of transportation in the City of Santa Ana, including pedestrian, bicycling, public transportation, car sharing programs, and emerging technologies.
- *Policy CN-1.12 Sustainable Infrastructure:* Encourage the use of low or zero emission vehicles, bicycles, nonmotorized vehicles, and car-sharing programs by supporting new and existing development that includes sustainable infrastructure and strategies such as vehicle charging stations, drop-off areas for ride-sharing services, secure bicycle parking, and transportation demand management programs.
- *Policy CN-1.18 Public Investment in Parks:* Coordinate with park renovation and new development to address air quality and climate impacts by reducing the heat island effect by providing green infrastructure and shade, and reducing air pollution by providing vegetation that removes pollutants and air particles.

Goal CN-3 Energy Resources: Reduce consumption of and reliance on nonrenewable energy, and support the development and use of renewable energy sources.

- *Policy CN-3.3 Development Patterns:* Promote energy-efficient development patterns by clustering mixed use developments and compatible uses adjacent to public transportation.
- *Policy CN-3.4 Site Design:* Encourage site planning and subdivision design that incorporates the use of renewable energy systems.
- *Policy CN-3.5 Landscaping:* Promote and encourage the planting of native and diverse tree species to improve air quality, reduce heat island effect, reduce energy consumption, and contribute to carbon mitigation with special focus in environmental justice areas.
- *Policy CN-3.7 Energy Conservation Design and Construction*: Incorporate energy conservation features in the design of new construction and rehabilitation projects.

Goal CN-4 Water Resources: Conserve and replenish existing and future water resources.

- *Policy CN-4.2 Landscaping:* Encourage public and private property owners to plant native or drought-tolerant vegetation.
- *Policy CN-4.4 Irrigation Systems:* Promote irrigation and rainwater capture systems that conserve water to support a sustainable community.
- *Policy CN-4.6 Water Quality*: Work with public and private property owners to reduce storm water runoff and to protect the water quality percolating into the aquifer and into any established waterway.

Open Space Element

Goal OS-1 Parks, Open Space, and Recreation: Provide an integrated system of accessible parks, recreation facilities, trails, and open space to serve the City of Santa Ana.

- *Policy OS-1.5 Park and Open Space Types:* Provide a mix of community, neighborhood, and special use parks, along with greenway corridors, natural areas, and landscape areas, to meet community needs for greenspace, recreation space, social space, and trail connectivity.
- *Policy OS-1.9 New Development:* Require all new development to provide adequate parks and open space, including via parkland dedication or development fees, in order to meet the City's park standard. Ensure that new development includes pedestrian and multi-modal travelways to promote a quality living environment. For new development within park deficient and environmental justice areas, prioritize the creation and dedication of new public parkland over the collection of impact fees.

Goal OS-2 Healthy, Safe and Inclusive Opportunities: Provide welcoming, inclusive, safe, and healthy parks, recreation facilities, and activities to serve Santa Ana residents regardless of age, ability, or income.

- *Policy OS-2.1 Recreation Variety:* Provide a variety of recreation facilities and activities to meet the diverse needs of the community. Consider needs for indoor and outdoor recreation opportunities, as well as traditional and trending activities.

Goal OS-3 Park Maintenance, Stewardship, and Sustainability: Maintain and manage parks, recreation facilities, trails and open space to sustain City assets and support safe use.

- *Policy OS-3.5 Landscaping:* Encourage the planting of native and diverse tree species in public and private spaces to reduce heat island effect, reduce energy consumption, and contribute to carbon mitigation.
- *Policy OS-3.6 Sustainable Parks and Facilities:* Integrate drought tolerant or native plantings, waterwise irrigation, design and maintenance efficiencies, and sustainable development practices to reduce water use and energy consumption.

Noise Element

Goal N-1 Land Use Compatibility: Ensure that existing and future land uses are compatible with current and projected local and regional noise conditions.

- *Policy N-1.2 Sound Design*: Encourage functional and attractive designs to mitigate excessive noise levels.
- *Policy N-1.4 Sensitive Uses:* Protect noise sensitive land uses from excessive, unsafe, or otherwise disruptive noise levels.

Goal N-2 Noise Generators: Reduce the impact of known sources of noise and vibration.

- *Policy N-2.1 Transportation Related Noise*: Reduce noise generated from traffic, railroads, transit, and airports to the extent feasible.
- *Policy N-2.2 Stationary Related Noise:* Minimize noise impacts from commercial and industrial facilities adjacent to residential uses or zones where residential uses are permitted.

- *Policy N-2.3* Temporary and/or Nuisance Noise: Minimize the effects of intermittent, short-term, or other nuisance noise sources.

Goal N-3 Airport and Land Use Environs: Protect sensitive land uses from airport related noise impacts.

- *Policy N-3.1 Residential Development:* Residential development within the John Wayne Airport (SNA) 65 A-weighted decibel (dBA) community noise equivalent level (CNEL) Noise Contour or greater is not supported.

Safety Element

Goal S-1 Flood Safety: Protect life and minimize property damage, social and economic disruptions caused by flood and inundation hazards.

- *Policy S-1.7 Surface Water Infiltration:* Encourage site drainage features that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events on private and public developments.

Goal S-2 Hazardous Materials: Protect residents and environmental resources from contaminated hazardous material sites and minimize risks associated with the use, production, storage, transport, and disposal of hazardous materials.

- *Policy S-2.4 Planning and Remediation:* Determine the presence of hazardous materials and/or waste contamination prior to approval of new uses and require that appropriate measures be taken to protect the health and safety of site users and the community.

Goal S-3 Geologic and Seismic Hazards: Provide a safe environment for all Santa Ana residents and workers while minimizing risk.

- *Policy S-3.2 Seismic and Geotechnical Standards:* Ensure that all new development abides by the current City and state seismic and geotechnical requirements and that projects located in areas with potential for geologic or seismic hazards prepare a hazards study.

Goal S-4 Aircraft Hazards: Protect the safety of the general public from aircraft hazards.

- *Policy S-4.1 Structures above 200 Feet:* For development projects that include structures higher than 200 feet above existing grade, the City shall inform the ALUC and submit materials to the ALUC for review. Proposed projects that would exceed a height of 200 feet above existing grade shall be required to file Form 7460-1 with the Federal Aviation Administration.
- *Policy S-4.2 Federal Aviation Regulation Part 77:* Do not approve buildings and structures that would penetrate FAR Part 77 Imaginary Obstruction Surfaces, unless consistent with the California Public Utilities Code Section 21240, such building or structure is determined by FAA to pose “no hazard” to air aviation. Additionally, under this policy, applicants proposing buildings or structures that penetrate the 100:1 Notification Surface will be required to file a Form 7460-1 Notice of Proposed Construction or Alteration with FAA and provide a copy of the FAA determination to the City and the ALUC.
- *Policy S-4.3 Light, Glare, and Other Interference:* Minimize hazards to aeronautical operations by ensuring land uses do not emit excessive glare, light, steam, smoke, dust, or electronic interference in compliance with FAA regulations and the John Wayne Airport Environs Land Use Plan.

- *Policy S-4.5 Referral to ALUC:* Prior to the amendment of the City's general plan or a specific plan, or the adoption or approval of a zoning ordinance or building regulation within the planning boundary established by the ALUC, and pursuant to Public Utilities Code Section 21676, the City shall first refer the proposed action to the ALUC.
- *Policy S-4.6 Deed Disclosure Notice:* Provide notice of airport in the vicinity where residential development is being proposed within the 60 dBA CNEL noise contours for the John Wayne Airport.

Land Use Element

Goal *LU-1 Growing Responsibly:* Provide a land use plan that improves quality of life and respects our existing community.

- *Policy LU-1.1 Compatible Uses:* Foster compatibility between land uses to enhance livability and promote healthy lifestyles.
- *Policy LU-1.5 Diverse Housing Types:* Incentivize quality infill residential development that provides a diversity of housing types and accommodates all income levels and age groups.
- *Policy LU-1.6 Transit Oriented Development:* Encourage residential mixed-use development, within the City's District Centers, Urban Neighborhoods, and adjacent to high quality transit.
- *Policy LU-1.9 Public Facilities and Infrastructure:* Evaluate individual new development proposals to determine if the proposals are consistent with the General Plan and to ensure that they do not compound existing public facility and service deficiencies.

Goal *LU-2 Land Use Needs:* Provide a balance of land uses that meet Santa Ana's diverse needs.

- *Policy LU-2.1 Employment Opportunities:* Provide a broad spectrum of land uses and development that offer employment opportunities for current and future Santa Ana residents.
- *Policy LU-2.2 Capture Local Spending:* Encourage a range of commercial uses to capture a greater share of local spending and offer a range of employment opportunities.
- *Policy LU-2.5 Benefits of Mixed Use:* Encourage infill mixed-use development at all ranges of affordability to reduce vehicle miles traveled, improve jobs/housing balance, and promote social interaction.
- *Policy LU-2.7 Business Incubator:* Support land use decisions that encourage the creation, development, and retention of businesses in Santa Ana.
- *Policy LU-2.8 City Image:* Encourage land uses, development projects, and public art installations that promote the city's image as a cultural, governmental, and business-friendly regional center.
- *Policy LU-2.10 Smart Growth:* Focus high density residential in mixed-use villages, designated planning focus areas, Downtown Santa Ana, and along major travel corridors.

Goal LU-3 Compatibility of Uses: Preserve and improve the character and integrity of existing neighborhoods and districts.

- *Policy LU-3.1 Community Benefits*: Support new development which provides a net community benefit and contributes to neighborhood character and identity.

- *Policy LU-3.4 Compatible Development:* Ensure that the scale and massing of new development is compatible and harmonious with the surrounding built environment.
- *Policy LU-3.9 Noxious, Hazardous, Dangerous, and Polluting Uses:* Improve the health of residents, students, and workers by limiting the impacts of construction activities and operation of noxious, hazardous, dangerous, and polluting uses that are in close proximity to sensitive receptors, with priority given to discontinuing such uses within environmental justice area boundaries.

Goal LU-4 Complete Communities: Support a sustainable Santa Ana through improvements to the built environment and a culture of collaboration.

- *Policy LU-4.1 Complementary Uses:* Promote complete neighborhoods by encouraging a mix of complementary uses, community services, and people places within a walkable area.
- *Policy LU-4.5 VMT Reduction:* Concentrate development along high-quality transit corridors to reduce vehicle miles traveled and transportation-related carbon emissions.

Historic Preservation Element

Goal HP-1 Historic Areas and Resources: Preserve and enhance Santa Ana's historic areas and resources to maintain a unique sense of place.

- *Policy HP-1.4 Protecting Resources:* Support land use plans and development proposals that actively protect historic and cultural resources. Preserve tribal, archeological, and paleontological resources for their cultural importance to communities as well as their research and educational potential.

Urban Design Element

Goal UD-1 Physical Character: Improve the physical character and livability of the City to promote a sense of place, positive community image, and quality environment.

- *Policy UD-1.1 Design Quality:* Ensure all developments feature high quality design, materials, finishes, and construction.
- *Policy UD-1.2 Public Art:* Require public art as part of major developments and the public realm improvements.
- *Policy UD-1.3 Delineation of Public Spaces:* Encourage site design that clearly defines public spaces through building placement and orientation.
- *Policy UD-1.4 Safety through Design:* Incorporate public safety design features into private and public developments to prevent loitering, vandalism, and other undesirable activities.
- *Policy UD-1.5 Attractive Public Spaces:* Encourage community interaction through the development and enhancement of plazas, open space, people places, and pedestrian connections with the public realm.

Goal UD-2 Sustainable Environment: Improve the built environment through sustainable development that is proportional and aesthetically related to its setting.

- *Policy UD-2.1 Enhanced Public Realm Experience:* Encourage development to enhance the existing environment through the use of creative architectural design and sustainable streetscape treatments that are consistent on each corridor.

- *Policy UD-2.2 Compatibility and Use with Setting:* Employ buffers and other urban design strategies to encourage the compatibility of new development with the scale, bulk, and pattern of existing development.
- *Policy UD-2.10 Greening the Built Environment:* Promote planting of shade trees and require, where feasible, preservation and site design that uses appropriate tree species to shade parking lots, streets, and other facilities, with the goal of reducing the heat island effect.
- *Policy-2.11 Sustainable Practices:* Encourage sustainable development through the use of drought-tolerant landscaping, permeable hardscape surfaces, and energy-efficient building design and construction.

Goal UD-3 Attractive Travelways: Create and maintain safe and attractive travelways through coordinated streetscape design.

- *Policy UD-3.2 Activate Paths:* Strengthen and activate the design of paths and adjacent development through enhanced and cohesive streetscapes, architectural themes, and landscaping.
- *Policy UD-3.3 Foster Community Building:* Promote a safe environment that facilitates social interaction and improves active transportation along corridors.
- *Policy UD-3.6 Linear Park System:* Support open space improvements along roadways and nonvehicular paths, such as bike or multiuse trails, to create linear open space that connect to a network of parks and activity areas throughout the city.

City of Santa Ana Municipal Code—Chapter 41, Zoning

The City's Municipal Code Chapter 41, Zoning, regulates the location and uses of specific uses within the city, including residences, businesses, trades, industries, use of buildings, structures, and land, the location, height, bulk, and size of buildings and structures. The zoning standards are implemented to:

- Encourage the most appropriate use of land.
- Conserve and stabilize property value.
- Provide adequate open spaces for light and air and to prevent and fight fires.
- Prevent the undue concentration of population.
- Lessen congestion on streets and highways.
- Promote the health, safety, and the general welfare of the people, all as part of the General Plan of the City. (Santa Ana Municipal Code, § 41-1.)

Specific Plan (SP) Zoning District: A "specific plan" is a planning and regulatory tool made available to local governments by the state of California. Specific plans implement an agency's General Plan through the development of policies, programs, and regulations that provide an intermediate level of detail between General Plans and individual development projects. State law stipulates that specific plans can only be adopted or amended if they are consistent with an adopted General Plan. The authority to prepare and adopt a specific plan and the requirements for its contents are set forth in California Government Code Sections 65450 through 65457. Section 65451 states:

A Specific Plan (SP) shall include a text and a diagram or diagrams which specify all of the following in detail:

- The distribution, location, and intent of the uses, including open space, within the area covered by the plan.
- The proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential faculties proposed to be located within the area covered by the plan and needed to support the land uses described by the plan.
- Standards and criteria by which the development will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable.
- A program of implementation measures including programs, public works projects, and financing measures.

Pursuant to the City's Zoning Code Section 41-593.1, the purpose of the SP zone is to provide for the orderly implementation of adopted specific plans. No use of property is permitted in the SP district except those uses stated in the applicable specific plan as permitted uses or uses subject to the issuance of a conditional use permit. No use of property which is required to have a conditional use permit by the applicable specific plan is permitted in a SP district in the absence of such conditional use permit. The development of property in the SP district must comply with all applicable development standards set forth in the applicable specific plan.

Specific Development Plan Number 48

The specific development zoning district for the project site was authorized by Chapter 41, Division 26, Section 41-593 et seq. of the Santa Ana Municipal Code to establish land use regulations and standards for Specific Development Plan Number 48. The City Council adopted such rezoning in January 1989. Under Specific Development Plan Number 48, permitted uses include: retail specialty, office, restaurant, specialty market, beauty salon, bank, theater, wine sales as accessory to gift package sales or flower display sales, retail plant nurseries, health club/fitness center, schools and studios, newsstands, live musical entertainment ancillary to a restaurant use. Conditionally permitted uses include live dance entertainment and alcoholic beverage sales, except as noted above. Under Specific Development Plan Number 48, development is permitted up to a height of 35 feet.

4.8.2 ENVIRONMENTAL SETTING

PROJECT SITE

The project site comprises approximately 17.2 acres located on the northeast corner of West Sunflower Avenue and South Bear Street, transected by South Plaza Drive. The project site comprises seven parcels (Assessor's Parcel Numbers 412-451-01 through -04 and 412-131-10, -20, -21). The City's GPU Land Use Element designates the project site as District Center-High (DC-5) within the South Bristol Street Focus Area. Development in the DC-5 designation is intended to provide urban retail, residential, mixed-use, and employment centers with an intensity of up to 5.0 floor area ratio and/or 125 dwelling units per acre and a maximum height of 25 stories. The project site is currently zoned as Specific Development Plan Number 48 (SD-48) which was adopted in 1989 and was last amended in 1997. SD-48 currently contains Specific Development (SD48), suburban apartment (R4), commercial residential (CR), general commercial (C2), planned development commercial (PDC), and multi-family residential, medium density (R2-MD) uses. The project site is currently occupied by the South Coast Plaza Village commercial center

on both sides of South Plaza Drive which consists of approximately 164,049 square feet of retail shops and restaurants, offices, and the Regency Theatres cinema building. The property also provides surface parking, a variety of trees and a half-acre open space lawn area. According to the 2020-2045 RTP/SCS, the project site is located in a High Quality Transit Area (HQTA) and TPA.[5,6] As a site within a TPA, the project site is located within 0.5-mile of an existing or planned stop along a high quality transit corridor. Specifically, the project site is located within 0.5-mile of OCTA transit stops along MacArthur Boulevard, Bristol Street, Sunflower Avenue, Plaza Drive, and Bear Street, for the following bus lines: Local Route 55, Local Route 57, Local Route 76, Local Route 86, and Community Route 150. As a site within an HQTA, the project site is located along a corridor characterized by an existing or planned fixed-route bus service with 15-minute (or less) intervals during peak commuting hours. OCTA Local Route 57 which runs via State College Boulevard and Bristol Street from Brea to Newport Beach, has an approximately 15-minute headway and is therefore considered a HQTA.

SURROUNDING USES

Surrounding properties include South Coast Plaza, to the south across Sunflower Avenue in the City of Costa Mesa; the multi-family housing communities of Versailles on the Lake and St. Albans to the north; a retail shopping center to the east; and the Village Creek condominium community to the west across Bear Street in the City of Costa Mesa; refer to Figure 3-2: Project Site, in Chapter 3, Project Description.

JOHN WAYNE AIRPORT (SNA)

The project site is located approximately 1.5 miles northwest of John Wayne Airport (SNA) and outside any John Wayne Airport (SNA) Safety Compatibility Zones (including the Runway Protection Zones), and the 60 CNEL noise contours as shown in Figure 4.6-1 of Section 4.6 Hazards and Hazardous Materials and Figure 4.9-1 of Section 4.9 Noise.[7,8] The project site is located within the AELUP Notification Area for John Wayne Airport (SNA), which includes the FAR Part 77 Notification Area. The ALUC uses FAR Part 77 as the criteria for determining height restrictions in the county. FAR Part 77 requires notification to the Federal Aviation Administration (FAA) for any project that would be more than 200 feet in height above ground level or that would penetrate a Part 77 Imaginary Obstruction Surface. Due to proposed building heights exceeding 200 feet, as well as the project site's location within the imaginary surface slope, FAA notification is required. Because the project site is located within the notification area for SNA and within the SNA planning area boundary, and the project proposes a Specific Plan and a zone change, the City is required to refer the proposed project to the ALUC for review, pursuant to the California Public Utilities Code Section 21676.

4.8.3 THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the State CEQA Guidelines, a project would have a significant

[5] Southern California Association of Governments, 2024, High Quality Transit Areas, available at: https://maps.scag.ca.gov/portal/apps/experiencebuilder/experience/?id=97f9699f14654b3b8895c74846541f75&page=home, accessed January 2024.

[6] Southern California Association of Governments, 2024, Transit Priority Areas, available at: https://hub.scag.ca.gov/datasets/10edc64279ff4ebeb99a191161416422_0/explore?location=34.145301%2C-117.743250%2C8.42, accessed January 2024.

[7] City of Santa Ana General Plan, 2020, Safety Element, Figure S-4, Airport Safety Zones, available at: https://general-plan-santa-ana-ca.proudcity.com/documents/figure-s-4-airport-safety-zones/.

[8] City of Santa Ana General Plan, 2019, Figure N-3, Airport Noise Contours, available at: https://general-plan-santa-ana-ca.proudcity.com/documents/figure-n-3-airport-noise-contours/.

impact related to land use and planning if it would:

LU-1: Physically divide an established community.

LU-2: Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

4.8.4 METHODOLOGY

The determination of whether the project conflicts with any applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect is based upon a review of the previously identified plans, policies, and regulations that are applicable to the project site and were adopted to mitigate or avoid an environmental effect. State CEQA Guidelines Section 15125(d) requires that an EIR discuss any inconsistencies with applicable plans. A conflict between a project and an applicable plan is not necessarily a significant impact under CEQA unless the inconsistency will result in an adverse physical change to the environment that is a "significant environmental effect" as defined by State CEQA Guidelines Section 15382.

Analysis of potential conflicts and consistency with applicable plans is included in this section of the Supplemental EIR. As described above in Section 4.8.1, under State Planning and Zoning law (Government Code Section 65000, et seq.), strict conformity with all aspects of a plan is not required. Generally, plans reflect a range of competing interests and agencies are given great deference to determine consistency with their own plans. As discussed in the Office of Planning and Research, State of California General Plan Guidelines (2017), a proposed project should be considered consistent with a general plan or elements of a general plan if it furthers one or more policies and does not obstruct other policies. More specifically, a project is considered consistent with the provisions and general policies of an applicable City or regional land use plan if it is consistent with the overall intent of the plan and would not preclude the attainment of its primary goals. Further, as affirmed in *Sequoyah Hills Homeowners Association v. City of Oakland*, state law does not require an exact match between a project and the applicable general plan. Rather, to be "consistent," the project must be "compatible with the objectives, policies, general land uses, and programs specified in the applicable plan," meaning that a project must be in "agreement or harmony" with the applicable land use plan to be consistent with that plan, but need not be in perfect conformity with every plan policy.[9] Importantly, a conflict between a project and an applicable plan is not necessarily a significant impact under CEQA unless the inconsistency will result in an adverse physical change to the environment that is a "significant environmental effect" as defined by CEQA Guidelines Section 15382.

4.8.5 PROJECT IMPACTS

LU-1: Would the project physically divide an established community? *[GPU PEIR Impact 5.10-1]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

The purpose of the GPU is to guide growth and development in the plan area through 2045 and beyond. According to the GPU PEIR Impact 5.10-1, the changes in existing land use designations that would occur with implementation of the proposed land use plan would not result in the

[9] Sequoyah Hills Homeowners Association v. City of Oakland (1993) 23 Cal.App.4th 704, 719, available at: https://caselaw.findlaw.com/court/ca-court-of-appeal/1760927.html, accessed January 2024.

physical division of an established community. Instead, the land use changes would help create a more unified community and help to establish more attractive neighborhoods as future development occurs. Specifically in the South Bristol Street Focus Area, GPU land use designations would add 5,272 dwelling units at GPU buildout compared to existing conditions and would replace current commercial uses, which would not divide an established community. Therefore, the GPU PEIR determined that implementation of the GPU would not divide an established community, and impacts would be less than significant.

Proposed Project Impact Analysis

The project implements land uses and activities that were envisioned and analyzed in the GPU PEIR. The project site is currently developed with 164,049 square feet of commercial uses, which comprises approximately 22 percent of the 17.2-acre site. The remaining project site is comprised of surface parking. The project site currently does not have any residential uses and no existing established community exists within the project site. The project site is surrounded by commercial and multi-family residential uses, and the project, which proposes a mixed-use community that would include mixed-use commercial and residential, residential only, and commercial only buildings, would connect the surrounding properties through the proposed pedestrian, bicycle, and vehicular network. Additionally, the proposed project would not introduce any new roadways that would bisect existing communities or neighborhoods. Therefore, the proposed project would not physically divide an established community, and impacts would be less than significant.

The project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be less then significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold LU-1 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold LU-1 were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

LU-2: Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? *[GPU PEIR Impact 5.10-2]*

IMPACT ANALYSIS

Evaluations of the proposed project's consistency with applicable regional and local plans and programs that have been adopted for the purpose of avoiding or mitigating an environmental effect are provided below. This includes a consistency analysis for SCAG's 2020-2045 RTP/SCS, the Airport Environs Land Use Plan for John Wayne Airport (SNA), the City's General Plan, and applicable zoning.

SCAG's Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 RTP/SCS)

GPU PEIR Impact Summary

The GPU PEIR determined that the GPU would be consistent with the SCAG RTP/SCS relevant goals and policies; thus, environmental impacts were determined to be less than significant.

Proposed Project Impact Analysis

The project's general consistency with the applicable goals, principles, and strategies set forth in the 2020-2045 SCAG RTP/SCS is discussed in Table 4.8-1: Applicable Goals, Principles, and Strategies of SCAG's 2020-2045 RTP/SCS. As detailed therein, the project would not conflict with the applicable goals, principles, and strategies set forth in the 2020–2045 RTP/SCS adopted for the purpose of avoiding or mitigating an environmental effect. The project would support the goals of the RTP/SCS to improve the productivity of the region's transportation system and to improve mobility, accessibility, reliability, and travel safety for people and goods. The project would also support the RTP/SCS goals to support an integrated regional development pattern and transportation network, reduce greenhouse gas emissions and improve air quality. The project would be developed within an existing urbanized area that provides an established network of roads and freeways that provide local and regional access to the area, including the project site. In addition, the project site is located in the GPU's designated Transit Opportunity Corridor and is served by a variety of bus lines. The availability and accessibility of public transit in the vicinity of the project site is documented by the project site's location within a designated SCAG HQTA and TPA. In addition, the project would provide 28 bicycle parking spaces, a new Class I Bike Path along Bear Street, a loading zone in the expanded right-of-way and new curb-adjacent landscape buffers along South Plaza Drive, and a new Class II bike lane or Class IV Bike cycle track, landscape buffers, and continuation of the sidewalk along Sunflower Avenue. The project would also enhance pedestrian activity in the area by providing improved sidewalks and human-scale commercial frontages on the ground floor. The project would be designed with LEED Certified or equivalent green building standards and would feature vehicle parking spaces equipped with electric vehicle (EV) charging stations in accordance with Title 24 and City requirements. The project would also install solar photovoltaic panels on the buildings to generate energy on-site. Also, as the project would provide 1,583 residential units, consisting of a mix of studio, one-bedroom, two-bedroom, and three-bedroom units with housing affordable to a range of households at various income levels, the project would support development of diverse housing types in areas that are supported by multiple transportation options. The project would maximize mobility and accessibility by providing opportunities for the use of several modes of transportation, including convenient access to public transit and opportunities for walking and biking. Therefore, the project would not conflict with the applicable goals, principles, and strategies of the 2020–2045 RTP/SCS adopted for the purpose of avoiding or mitigating an environmental effect.

Table 4.8-1: Applicable Goals, Principles, and Strategies of SCAG's 2020-2045 RTP/SCS

2020–2045 RTP/SCS Goals, Principles, and Strategies	Would the Project Conflict?
Goal 2: Improve mobility, accessibility, reliability, and travel safety for people and goods. **Goal 3:** Enhance the preservation, security, and resilience of the regional transportation system. **Goal 4:** Increase person and goods movement and travel choices within the transportation system.	**No Conflict.** The project would support and would not conflict with these regional goals. As discussed in Section 4.13, Transportation, of this Supplemental EIR, the project would result in less-than-significant impacts with respect to conflicts with programs, plans, policies, and ordinances addressing the circulation system; VMT; and hazardous geometric design features. During construction, a traffic control plan would be implemented to ensure that adequate and safe access is available within and near the project site. Appropriate construction traffic control

Table 4.8-1: Applicable Goals, Principles, and Strategies of SCAG's 2020-2045 RTP/SCS

2020–2045 RTP/SCS Goals, Principles, and Strategies	Would the Project Conflict?
	measures would be utilized to ensure that emergency access to the project site and traffic flow is maintained on adjacent rights-of-way. During operation, the project would not substantially increase hazards due to a geometric design feature or incompatible use. Therefore, the project would not conflict with these goals.
Goal 5: Reduce greenhouse gas emissions and improve air quality. **Goal 6:** Support healthy and equitable communities. **Goal 7:** Adapt to a changing climate and support an integrated regional development pattern and transportation network.	**No Conflict.** As evaluated in Section 4.1, Air Quality, the project would result in less-than-significant impacts with mitigation related to air quality during construction and operation. As described in Section 4.5, Greenhouse Gas Emissions, the project would incorporate the use of Energy Star–labeled products and appliances; use of light-emitting diode (LED) lighting or other energy-efficient lighting technologies to reduce electricity use, fenestration designed for solar orientation as well as the installation of solar photovoltaic panels on the building to generate energy on-site. The project would also further support and promote environmental sustainability by complying with regulatory requirements and LEED-certified or equivalent green building standards. These features may include but would not be limited to environmentally friendly materials, such as locally produced and recycled building construction materials; and passive shading for indoor spaces, increased natural daylighting and ventilation; and window technologies such as low-emission coatings and insulated daylighting panels. While these measures are intended to reduce GHG emissions, they would also improve air quality. The project would be developed within an existing urbanized area that provides an established transportation network of roads, freeways, and transit that provide local and regional access to the area, including the project site. Specifically, the project would include a mixed-use development consisting of residential units, retail uses, and office space within a SCAG-designated HQTA. The project would also promote bicycle use by providing 28 bicycle spaces and adding a Class I Bike Path along Bear Street and a Class II Bike Lane or Class IV Cycle Track along Sunflower Avenue along the edges of the project site. In addition, the project would enhance pedestrian activity on and around the project site by including retail and restaurant uses on the ground level, which would serve to activate the streets and common spaces and promote walkability for the community. As such, the project would support the reduction of vehicle miles traveled (VMT) and dependency on single-occupancy vehicles. Therefore, the project would not conflict with the region's adaptation to a changing climate and would support an integrated regional development pattern and transportation network. Therefore, the project would not conflict with these goals.
Goal 8: Leverage new transportation technologies and data-driven solutions that results in more efficient travel.	**No Conflict.** The project would promote non-auto travel and reduce the use of single-occupant vehicle trips by being located in a transit-rich area, providing bicycle parking and new bike paths/lanes/routes, and improving the pedestrian environment. The project would also

Table 4.8-1: Applicable Goals, Principles, and Strategies of SCAG's 2020-2045 RTP/SCS

2020–2045 RTP/SCS Goals, Principles, and Strategies	Would the Project Conflict?
	leverage new transportation technologies by providing parking spaces that are equipped with EV charging stations. Therefore, the project would not conflict with this goal.
Goal 9: Encourage development of diverse housing types in areas that are supported by multiple transportation options.	**No Conflict.** As discussed above, the project would introduce a mixed-use development with a range of unit types in a HQTA well-served by multiple transportation options. Specifically, the project would provide 1,583 residential units, consisting of a mix of studio, one-bedroom, two-bedroom, and three-bedroom units with housing affordable to a range of households at various income levels. The project would also provide 28 bicycle parking spaces within the project site to serve the proposed residential uses. In addition, the project would encourage walking and enhance pedestrian activity on and around the project site by including retail uses on the ground level and including landscaping and streetscape improvements. As such, the project would provide opportunities for the use of alternative modes of transportation, thereby providing a range of housing unit types in an area supported by multiple transportation options. Therefore, the project would not conflict with this goal.
Goal 10: Promote conservation of natural and agricultural lands and restoration of habitats.	**No conflict.** As discussed in the Notice of Preparation and Scoping Comments, included as Appendix A of this Supplemental EIR, the GPU PEIR found that according to the California Resource Agency's Department of Conservation, the City does not have any significant agricultural resources, has no land designated or zoned for agricultural use, forest land, or timberlands, and does not have any land subject to a Williamson Act contract. As such, no farmland, forest, or timberland exists on the project site. The City is also almost completely built out and the GPU would allow for development in highly urbanized areas. Therefore, the proposed project would not result in the loss of agricultural or forest uses, convert farmland/forest land to non-agricultural/non-forest use, or conflict with existing zoning for agricultural use, forest or timberlands. No impacts to agricultural or forest lands would occur, and the project would not conflict with this goal.
Principle 2: Place high priority for transportation funding in the region on projects and programs that improve mobility, accessibility, reliability and safety, and that preserve the existing transportation system. **Principle 3:** Assure that land use and growth strategies recognize local input, promote sustainable transportation options, and support equitable and adaptable communities.	**No Conflict.** As discussed above under Goals 2, 6, and 7, the project would be developed in an existing urbanized area with an established network of roads and freeways, and transit, that provide local and regional access, including to the project site. The project site is located within a half-mile of Orange County Transit Authority (OCTA) transit stops along MacArthur Boulevard, Bristol Street, Sunflower Avenue, Plaza Drive, and Bear Street, for the following bus lines: Local Route 55, Local Route 57, Local Route 76, Local Route 86, and Community Route 150. OCTA Local Route 57 which runs via State College Boulevard and Bristol Street from Brea to Newport Beach, has an approximately 15-minute headway and is therefore

Table 4.8-1: Applicable Goals, Principles, and Strategies of SCAG's 2020-2045 RTP/SCS

2020–2045 RTP/SCS Goals, Principles, and Strategies	Would the Project Conflict?
	considered a high-quality transit corridor. The availability and accessibility of public transit in the project area is documented by the project site's location within a TPA and a SCAG-designated HQTA. Given the project's location in proximity to a variety of transportation options, the project would improve mobility, accessibility, and overall productivity of the transportation system by providing residents, employees, and visitors with opportunities and choices for the use of alternative and sustainable modes of transportation, including convenient access to public transit and opportunities for walking and biking in the community. Therefore, the project would not conflict with these principles.
Principle 4: Encourage RTP/SCS investments and strategies that collectively result in reduced non-recurrent congestion and demand for single occupancy vehicle use, by leveraging new transportation technologies and expanding travel choices.	**No Conflict.** The project would construct a mixed-use development consisting of residential units, retail uses, and office space within a SCAG-designated HQTA. As discussed above, the project site is located within a half-mile of OCTA transit stops along MacArthur Boulevard, Bristol Street, Sunflower Avenue, Plaza Drive, and Bear Street, for the following bus lines: Local Route 55, Local Route 57, Local Route 76, Local Route 86, and Community Route 150. OCTA Local Route 57 which runs via State College Boulevard and Bristol Street from Brea to Newport Beach, has an approximately 15-minute headway and is therefore considered a high-quality transit corridor. The project would also promote bicycle use by providing 28 bicycle spaces. In addition, the project would enhance pedestrian activity on and around the project site by siting retail uses on the ground level, which would serve to activate the streets and promote walkability. As such, the project would support the reduction of VMT per capita and dependency on single-occupancy vehicles. As such, the project would not conflict with this principle.
Principle 5: Encourage transportation investments that will result in improved air quality and public health, and reduced greenhouse gas emissions.	**No Conflict.** As discussed under Goals 5 and 7 above, the project would result in less-than-significant impacts with mitigation related to air quality during construction and operation. In addition, the project would incorporate the use of Energy Star–labeled products and appliances; use of LED lighting or other energy-efficient lighting technologies to reduce electricity use, and fenestration designed for solar orientation as well as the installation of solar photovoltaic panels on the buildings to generate energy on-site. The project would also further support and promote environmental sustainability by complying with regulatory requirements and LEED-certified equivalent green building standards. These features may include but would not be limited to environmentally friendly materials, such as locally produced and recycled building construction materials; and passive shading for indoor spaces, increased natural daylighting and ventilation; and window technologies such as low-emission coatings and insulated daylighting panels. Therefore, the project would not conflict with this principle.

Table 4.8-1: Applicable Goals, Principles, and Strategies of SCAG's 2020-2045 RTP/SCS

2020–2045 RTP/SCS Goals, Principles, and Strategies	Would the Project Conflict?
Strategy: Focus Growth Near Destinations & Mobility Options • Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations. • Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets. • Plan for growth near transit investments and support implementation of first/last mile strategies. • Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses. • Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods. • Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed-uses or locating and orienting close to existing destinations). • Identify ways to "right size" parking requirements and promote alternative parking strategies (e.g., shared parking or smart parking).	**No conflict.** As discussed above, the project site is located within a SCAG-designated HQTA and is located within a half-mile of OCTA transit stops along MacArthur Boulevard, Bristol Street, Sunflower Avenue, Plaza Drive, and Bear Street, for the following bus lines: Local Route 55, Local Route 57, Local Route 76, Local Route 86, and Community Route 150. OCTA Local Route 57 which runs via State College Boulevard and Bristol Street from Brea to Newport Beach, has an approximately 15-minute headway and is therefore considered a high-quality transit corridor**.** The project would construct an infill development replacing a commercial site with a large area of surface parking. The project would provide housing and jobs by developing 1,583 residential units, 80,000 square feet of retail space, 300,000 square feet of office space. The provision of 28 bicycle spaces and an improved pedestrian environment, due to the siting of retail uses on the ground level, would activate the streets and promote walkability and alternative transportation. As such, the project would serve to provide growth near destinations and mobility options. Refer to the SCAG goals above for further details. Therefore, the project would not conflict with this land use strategy.
Strategy: Promote Diverse Housing Choices • Preserve and rehabilitate affordable housing and prevent displacement. • Identify funding opportunities for new workforce and affordable housing development. • Create incentives and reduce regulatory barriers for building context-sensitive accessory dwelling units to increase housing supply. • Provide support to local jurisdictions to streamline and lessen barriers to housing development that supports reduction of greenhouse gas emissions.	**No Conflict.** As described in Goal 9 above, the project would provide a range of unit types. Specifically, the project would provide 1,583 residential units, consisting of a mix of studio, one-bedroom, two-bedroom, and three-bedroom units with housing affordable to a range of households at various income levels. As the project site does not currently provide residential uses, the project would not displace housing. The proposed housing would also be located in proximity to numerous transit choices and the provision of bicycle parking/paths, and an improved pedestrian environment would encourage alternative modes of transportation and, thus, the reduction of greenhouse gas emissions. As such, the project would promote diverse housing choices and would not conflict with this land use strategy.
Strategy: Leverage Technology Innovations • Promote low emission technologies such as neighborhood electric vehicles, shared rides hailing, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedicated lanes, charging and parking/drop-off space. • Improve access to services through technology—such as telework and telemedicine as well as other incentives such as a "mobility wallet," an app-based	**No Conflict.** The project would provide EV charging stations in accordance with Title 24 and City requirements. The project would also incorporate the use of Energy Star–labeled products and appliances; use of LED lighting or other energy-efficient lighting technologies to reduce electricity use, and fenestration designed for solar orientation as well as the installation of solar photovoltaic panels on the buildings to generate energy on-site. The project would also further support and promote environmental sustainability by complying with regulatory requirements and LEED-certified equivalent green building

Table 4.8-1: Applicable Goals, Principles, and Strategies of SCAG's 2020-2045 RTP/SCS

2020–2045 RTP/SCS Goals, Principles, and Strategies	Would the Project Conflict?
system for storing transit and other multi-modal payments. • Identify ways to incorporate "micro-power grids" in communities, for example solar energy, hydrogen fuel cell power storage and power generation. **Strategy: Support Implementation of Sustainability Policies** • Pursue funding opportunities to support local sustainable development implementation projects that reduce greenhouse gas emissions. • Support statewide legislation that reduces barriers to new construction and that incentivizes development near transit corridors and stations. • Support local jurisdictions in the establishment of Enhanced Infrastructure Financing Districts (EIFDs), Community Revitalization and Investment Authorities (CRIAs), or other tax increment or value capture tools to finance sustainable infrastructure and development projects, including parks and open space. • Work with local jurisdictions/communities to identify opportunities and assess barriers to implement sustainability strategies. • Enhance partnerships with other planning organizations to promote resources and best practices in the SCAG region. • Continue to support long range planning efforts by local jurisdictions. • Provide educational opportunities to local decisionmakers and staff on new tools, best practices, and policies related to implementing the Sustainable Communities Strategy.	standards. These features may include but would not be limited to environmentally friendly materials, such as locally produced and recycled building construction materials; passive shading for indoor spaces, increased natural daylighting and ventilation; and window technologies such as low-emission coatings and insulated daylighting panels. In addition, the project would use water-saving pool filters, pool/spa recirculating filtration equipment; pool splash troughs, leak detection systems for pool/spa, pool metering, drip/subsurface irrigation where appropriate, and/or proper hydro-zoning/zoned irrigation. Therefore, the project would leverage technology innovations and support implementation of sustainability policies, and the project would not conflict with these land use strategies.
Strategy: Promote a Green Region • Support development of local climate adaptation and hazard mitigation plans, as well as project implementation that improves community resiliency to climate change and natural hazards**.** • Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration. • Integrate local food production into the regional landscape. • Promote more resource efficient development focused on conservation, recycling and reclamation. • Preserve, enhance and restore regional wildlife connectivity.	**No Conflict.** The proposed project involves an infill mixed-use development that would create a balance between residential, office, and commercial uses in an urbanized area and would not interfere with regional wildlife connectivity or affect any agricultural land. The proposed project would be required to comply with the most current and applicable Title 24 standards and California Building Code (CBC), including providing on-site energy generation through the use of solar photovoltaic panels, which would help reduce the demand for electricity produced by Southern California Edison and reduce GHG emissions. In addition, the proposed project would include areas of active and passive open space to provide future residents, visitors, and employees of The Village access to new park space and gathering areas. Thus, the proposed project would support a resource efficient development that reduces energy consumption and GHG emissions. The

Table 4.8-1: Applicable Goals, Principles, and Strategies of SCAG's 2020-2045 RTP/SCS

2020–2045 RTP/SCS Goals, Principles, and Strategies	Would the Project Conflict?
• Reduce consumption of resource areas, including agricultural land. • Identify ways to improve access to public park space.	proposed project would be consistent with this reduction strategy.

Source: Southern California Association of Governments, September 3, 2020, 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy, available at: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176.

Airport Environs Land Use Plan for John Wayne Airport (SNA)

GPU PEIR Impact Summary

John Wayne Airport (SNA) is located outside the GPU area's southeastern boundary. A large area of the southeastern portion of the City of Santa Ana is located within the FAR Part 77 Obstruction Notification Area of the AELUP for John Wayne Airport (SNA), and a small portion of the City's southeastern area is located within the John Wayne Airport (SNA) safety compatibility Zone 6 and within the 60 dBA CNEL aircraft operation noise contours. The GPU areas nearest to the airport consist of a mix of industrial, DC, and low-density residential land use designations. Under the GPU, the land use designations of these areas did not change. Additionally, these areas are already developed with a mix of residential, commercial, office, and industrial uses and no new or more intense development in these areas was anticipated as a result of the GPU; the majority of development under the GPU is anticipated in the focus areas. Land uses within the AELUP planning area boundaries are required to conform to safety, noise, and height restrictions. Public Utilities Code Section 21675(c) requires establishing an airport influence area, an area surrounding an airport which affects, or is affected by, aircraft operations and has a corresponding airport land use compatibility plan. Accordingly, development projects under the GPU and within the airport influence area would be required to follow the project consistency determination process with the ALUC and comply with FAA airspace protection regulations. New development within the airport's 65 CNEL noise contours would also comply with or be mitigated to acceptable interior noise levels. Thus, GPU impacts were determined to be less than significant.

Proposed Project Impact Analysis

As described above, the project site is located approximately 1.5 miles northwest of John Wayne Airport (SNA) and outside any SNA Safety Compatibility Zones (including the Runway Protection Zones), and the 60 CNEL noise contour, as shown in Figure 4.6-1 of Section 4.6 Hazards and Hazardous Materials and Figure 4.9-1 of Section 4.9 Noise. Therefore, the project would not result in a safety hazard or excessive noise for people residing or working in the project area. However, the project site is located within the AELUP Notification Area for SNA, which includes the FAR Part 77 Notification Area.[10] Accordingly, the project is required to be submitted to the FAA for an aeronautical review and to the ALUC for project consistency determination with the AELUP. If the ALUC finds the project inconsistent, the local agency may, after a public hearing, propose to overrule the ALUC by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes described above. With implementation of

[10] City of Santa Ana General Plan, 2020, Safety Element, Figure S-4, Airport Safety Zones, available at: https://general-plan-santa-ana-ca.proudcity.com/documents/figure-s-4-airport-safety-zones/.

regulatory compliance, the project would not conflict with any airport related plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect.

The project involves land uses, including permitted activities and development standards (e.g., building height), that were envisioned and analyzed in the GPU PEIR. Table 4.8-2: Consistency with Airport Environs Land Use Plan for John Wayne Airport (SNA) provides a consistency analysis of the proposed project with the AELUP. As shown in Table 4.8-2, the project would not conflict with the AELUP for SNA. The project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

Table 4.8-2: Consistency with Airport Environs Land Use Plan for John Wayne Airport (SNA)

AELUP Policy	Would the Project Conflict?
Policy 3.2.1 General Policy: Within the boundaries of the AELUP, any land use may be found to be inconsistent with the AELUP which: 1. Places people so that they are affected adversely by aircraft noise, 2. Concentrates people in areas susceptible to aircraft accidents, 3. Permits structures of excessive height in areas which would affect adversely the continued operation of the airport, or 4. Permits activities or facilities that would affect adversely aeronautical operations.	**No Conflict.** As described in Section 4.6 Hazards and Hazardous Materials and 4.9 Noise, the project would not result in a safety hazard or concentrate people in areas susceptible to aircraft accidents or result in excessive airport noise. The project site located outside of the Traffic Safety Zone, Medium General Aviation Runway Safety Compatibility Zones, and the 60 CNEL noise contours but within the AELUP Area for John Wayne Airport (SNA) and the FAR Part 77 Notification Area, as shown in Figures 4.6-1 and 4.9-1. Additionally, the proposed project's buildings would have a maximum height of 25 stories and would be required to comply with FAR Part 777 which refers the project to the Orange County ALUC for review, pursuant to the California Public Utilities Code Section 21676. Thus, the project would be consistent with this AELUP policy.
Policy 3.2.6 Height Restriction Zone: Any object, which by reason of its height or location would interfere with the established, or planned, airport flight procedures, patterns, or navigational systems, is unacceptable to the Commission. Similarly, any proposal which would cause a diminution in the utility of an airport is unacceptable to the Commission. The standards, criteria, and procedures promulgated by the FAA for the thorough evaluation of development projects are designed to ensure the safe and efficient use of the navigable airspace. The application of these principles by the Commission will ensure the stability of local air transportation, as well as promote land uses that are compatible with the airport environs. However, any object which rises above the height of surrounding development, or which is located in close proximity to any of the various flight paths, must be clearly visible during hours of twilight or darkness and must not threaten, endanger, or interfere with aeronautical operations. Such objects, even if within the above height restrictions, are not acceptable to the Commission unless they are clearly marked or lighted according to FAA standards.	**No Conflict.** The proposed project's buildings would have a maximum height of 25 stories. As such, the project would be required to comply with FAR Part 77. This regulation requires that notice be given to the FAA if there is a proposal to construct a structure that would exceed a 100:1 slope of an imaginary surface extending outward for 20,000 feet from the nearest runway at John Wayne Airport (SNA). Beyond the 100:1 imaginary surface (as applicable for the proposed project), FAR Part 77 requires notification to FAA for any project that will be more than 200 feet in height above the ground level. The proposed project is subject to the City's development review and permitting process and would comply with the FAR Part 77 notification requirement where the project is referred to the Orange County ALUC for review, pursuant to California Public Utilities Code Section 21676. Thus, the project would be consistent with this AELUP policy.

Table 4.8-2: Consistency with Airport Environs Land Use Plan for John Wayne Airport (SNA)

AELUP Policy	Would the Project Conflict?
Policy 3.2.7 Airspace/Airport Inconsistency: Any structure, either within or outside of the planning area, is inconsistent with this AELUP if it: 1. Is determined to be a "Hazard" by the FAA; 2. Would raise the ceiling or visibility minimums at an airport for an existing or planned instrument procedure (i.e., a procedure consistent with the FAA approved airport layout plan or a proposed procedure formally on file with the FAA); 3. Would result in a loss in airport utility, e.g., in a diminution of the established operational efficiency and capacity of the airport, such as by causing the usable length of the runway(s) to be reduced; or 4. Would conflict with air space used for the airport traffic pattern or enroute navigation to and from the airport.	**No Conflict.** The proposed project is not located within an area and would not extend into areas that would adversely affect the John Wayne Airport (SNA) operations or result in a hazard. As shown in Figure 4.6-1, the proposed project is located outside of the Traffic Safety Zone and Medium General Aviation Runway Safety Compatibility Zones and would not be considered a hazard by the FAA or result in a loss in airport utility. The proposed project's buildings would be a maximum of 25 stories high. Though the project would require FAR Part 77 notification, the project would not affect airport operations and would not raise the visibility minimums for John Wayne Airport (SNA) or conflict with air space used for air navigation. Thus, the project would be consistent with this AELUP policy.
Policy 3.3.6: Condition which may serve to mitigate a project/action and thus may permit the ALUC to make a finding of consistency includes providing noticing that states: "Notice of Airport in Vicinity. This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you."	**No Conflict.** The proposed project is located approximately 1.5 miles northwest of John Wayne Airport (SNA) and outside the Traffic Safety Zone, Medium General Aviation Runway Safety Compatibility Zones, and the 60 CNEL noise contours as shown in Figures 4.6-1 and 4.9-1. Therefore, the project is not located within the approach or departure zones or runway safety compatibility zones for the airport, or noise contours of the airport and would not be subject to annoyances or inconveniences associated with airport operations (such as noise, vibration, or odors). Thus, the noticing statement in this policy is not required for the ALUC to make a finding of consistency, and the project would be consistent with this AELUP policy.

Source: Orange County Airport Land Use Commission, 2008, Orange County Land Use Plan for John Wayne Airport, available at: https://files.ocair.com/media/2021-02/JWA_AELUP-April-17-2008.pdf.

City of Santa Ana General Plan

GPU PEIR Impact Summary

As described above, the City's GPU Land Use Element designates the project site as District Center-High (DC-5) within the South Bristol Street Focus Area. Development in the DC-5 designation is intended to provide urban retail, residential, mixed-use, and employment centers with an intensity of up to 5.0 floor area ratio and/or 125 dwelling units per acre and a maximum height of 25 stories. The GPU Land Use Element states that the District Center land use designation provides for distinctly urban retail, residential mixed-use, and employment centers

that are well connected to public transportation. It includes the City's primary activity centers and opportunities for new urban-scale development. The designation allows a mix of uses, including residential; professional offices; multilevel corporate offices; retail and commercial services; and cultural, education, recreation, and entertainment uses.

Proposed Project Impact Analysis

The project pursues buildout of part of the City's General Plan Land Use Plan. As the proposed project would include 1,583 residential units on the 17.2-acre site, the overall proposed residential density would equate to approximately 92 dwelling units per acre, which would be within the permitted density of 125 dwelling units per acre. The proposed buildings would range from 8-25 stories, as permitted.

As described in Chapter 3, Project Description, the project would include approximately 1,850,000 square feet of residential building space, 80,000 square feet of retail space, and 300,000 square feet of office space. As such, development of 2,230,000 square feet of such uses on the 17.2-acre site would result in a proposed floor area ratio of approximately 2.98, which would be within the permitted 5.0 floor area ratio. The project's general consistency with the applicable goals, policies, and objectives of the GPU Elements is discussed in Table 4.8-3, and as detailed therein, the project would not conflict with the applicable goals, policies, and objectives of the GPU Elements.

Table 4.8-3: Applicable Goals, Policies, and Objectives of the GPU Elements

GPU Elements' Goals, Policies, and Objectives	Would the Project Conflict?
Community Element	
Goal CM-1: Provide opportunities for public and private recreation and cultural programs that meet the needs of Santa Ana's diverse population. **Policy CM-1.5:** Promote the development and use of municipal buildings, indoor facilities, sports fields, and outdoor spaces for recreation that serve residents throughout the city, with priority given to areas that are underserved and/or within environmental justice area boundaries. **Policy CM-1.6:** Promote the development and use of privately-owned recreation and entertainment facilities that help meet the needs of Santa Ana residents.	**No Conflict.** The project would provide approximately 7.5 acres of publicly accessible open space and common areas. Public open spaces at The Village would consist of active spaces, outdoor seating, garden paseos, a fitness loop, recreational lawn, and the incorporation of architectural features. The project would also provide private open space amenities which would consist of outdoor balconies and patios, pools and spas, outdoor kitchens, and communal gathering spaces for residents. As such, the project would not conflict with the goal and policies.
Goal CM-3: Promote the health and wellness of all Santa Ana residents. **Policy CM-3.2:** Continue to support the creation of healthy neighborhoods by addressing public safety, land use conflicts, hazardous soil contamination, incompatible uses, and maintaining building code standards.	**No Conflict.** The project would promote the health and wellness of all Santa Ana residents as it would support the creation of healthy neighborhoods through design and construction of the project to building code standards, address the potential for hazardous materials and geotechnical hazards, maintain public safety, and adhere to land uses. As detailed in Section 4.4, Geology and Soils, and according to the Geotechnical Feasibility Study (refer to Appendix D) prepared for the proposed project, one of the primary seismic hazards at the project site is ground shaking due to the project site's proximity to the San Joaquin Hills Blind Thrust Fault and the Newport-Inglewood Fault. The proposed project would be designed and constructed to meet or exceed current design standards as found in the latest CBC and other

Table 4.8-3: Applicable Goals, Policies, and Objectives of the GPU Elements

GPU Elements' Goals, Policies, and Objectives	Would the Project Conflict?
	applicable local, state, and federal codes to minimize impacts related to fault rupture (refer to RR G-1 and RR G-2). Additionally, project-specific MM's G-1 and G-2 would be implemented pursuant to the CBC requirements for review and approval by the City's Building and Safety Division as part of the construction permit approval process. With adherence to the latest CBC requirements and project-specific MMs G-1 and G-2 to conduct a design-level geotechnical investigation prepared in compliance with the current CBC requirements and to the satisfaction of the City's Building and Safety Division, impacts related to strong seismic ground shaking, liquefaction, and settlement and collapse would be less than significant. With regard to potential for landslides, the project site is relatively flat; thus, there would be no hazards related to slope stability. Based on groundwater depth, local dewatering and inflow control for excavations deeper than approximately 15 to 20 feet (which may vary across the project site) would be required for construction activities. As such, the project would also comply with CBC requirements and implement project-specific MMs G-1 and G-2, impacts related to subsidence and expansive soils would be less than significant. As detailed in Section 4.6, Hazards and Hazardous Materials, the Phase I Environmental Site Assessment (refer to Appendix E) conducted for the proposed project revealed no evidence of Recognized Environmental Conditions (RECs) and/or Controlled RECs. As also described in Section 4.6, Hazards and Hazardous Materials, the project site is located within the Airport Environs Land Use Plan for John Wayne Airport (SNA) and the FAR Part 77 Notification Area.[11] As the proposed project's buildings would have a maximum height of 25 stories, the project would be required to comply with FAR Part 77 to refer the project to the Orange County Airport Land Use Commission for review, pursuant to the California Public Utilities Code Section 21676. With implementation of regulatory compliance, the project would not result in a safety hazard or excessive noise for people residing or working in the project area. As detailed in Section 4.11, Public Services, the project would not result in new substantial unplanned growth that was not previously analyzed in the GPU PEIR. The project would also incorporate applicable Crime Prevention through Environmental Design measures, adhere to applicable Orange County Fire Authority's Fire Prevention Guidelines, and comply with the California Fire Code. As such, the proposed project would result in less than significant impacts related to police and fire protection services.

[11] City of Santa Ana General Plan, 2020, Safety Element, Figure S-4, Airport Safety Zones, available at: https://general-plan-santa-ana-ca.proudcity.com/documents/figure-s-4-airport-safety-zones/.

Table 4.8-3: Applicable Goals, Policies, and Objectives of the GPU Elements

GPU Elements' Goals, Policies, and Objectives	Would the Project Conflict?
	As detailed above for Threshold LU-1, the project site is surrounded by commercial and multi-family residential uses, and the project, which proposes a mixed-use community that would include mixed-use commercial and residential, residential only, and commercial only buildings, would connect the surrounding properties through the proposed pedestrian, bicycle, and vehicular network. Additionally, the proposed project would not introduce any new roadways that would bisect existing communities or neighborhoods. As such, the proposed project would include compatible uses and would not physically divide an established community. Therefore, the project would not conflict with this policy.
Policy CM-3.8: Repurpose underutilized spaces and City-owned vacant land as a strategy to improve community health and increase the number and accessibility of opportunities for health and recreation activities. Prioritize the redevelopment of such sites within environmental justice area boundaries and other areas underserved by parks and recreation opportunities.	**No Conflict.** Under existing conditions, the 17.2-acre project site consists of approximately 164,049 square feet of retail, restaurant, office, and theatre uses, surface parking, and lawn areas. The project would redevelop the underutilized space by introducing residential uses and increasing density of commercial uses; at full buildout, the project would result in 1,583 residential units, 80,000 square feet of retail space, 300,000 square feet of office space, and approximately 7.5 acres of publicly accessible open space and common areas. The 7.5 acres of publicly accessible open space and common areas would include active spaces, outdoor seating, garden paseos, a fitness loop, recreational lawn. As such, the project would increase health and recreation activities opportunities in the vicinity. Therefore, the project would not conflict with this policy.
Mobility Element	
Goal M-1: A comprehensive and multimodal circulation system that facilitates the safe and efficient movement of people, enhances commerce, and promotes a sustainable community. **Policy M-1.2:** Provide a balanced and equitable multimodal circulation network that reflects current and changing needs. **Policy M-1.6:** Transform travel ways to accommodate all users through street design and amenities, such as sidewalks, trees, landscaping, street furniture, and bus shelters.	**No Conflict.** The proposed project would include roadway and streetscape modifications and improvements along Sunflower Avenue, Bear Street, and South Plaza Drive in addition to a new internal network of private streets and drives that offer access throughout the site. New and enhanced traffic control devices such as traffic signals and stop signs would also be integrated at new access points and intersections. The project would include new curb-adjacent landscape buffer and street furniture throughout the site. Therefore, the project would not conflict with this policy.
Policy M-1.7: Proactively mitigate existing and new potential air quality, noise, congestion, safety, and other impacts from the transportation network on residents and business, especially in environmental justice communities.	**No Conflict.** As discussed in Sections 4.1, Air Quality; 4.9, Noise; and 4.13, Transportation; of this Supplemental EIR, the project would result in less than significant (with mitigation for air quality and noise) impacts. Therefore, the project would not conflict with this policy.
Policy M-1.8: Consider air and water quality, noise reduction, neighborhood character, and street-level aesthetics when making improvements to travel ways.	**No Conflict.** The project would improve the aesthetics and neighborhood character of the travel ways by adding landscaping, planting zones, and street furniture along the streetscape. The project's proposed internal network of pedestrian pathways and addition of a Class I Bike Path along Bear Street and a Class II Bike Lane or Class

Table 4.8-3: Applicable Goals, Policies, and Objectives of the GPU Elements

GPU Elements' Goals, Policies, and Objectives	Would the Project Conflict?
	IV Cycle Track along Sunflower Avenue would encourage alternative transportation, support reduction of VMT, and improve air quality. Therefore, the project would not conflict with this policy.
Goal M-3: A safe, balanced, and integrated network of travel ways for nonmotorized modes of transportation that connects people to activity centers, inspiring healthy and active lifestyles. **Policy M-3.1:** Expand and maintain a citywide network of nonmotorized travel ways within both the public and private realms that create linkages between neighborhoods, recreational amenities, schools, employment centers, neighborhood serving commercial, and activity centers	**No Conflict.** As described above, the project's proposed internal network of pedestrian pathways and addition of a Class I Bike Path along Bear Street and a Class II Bike Lane or Class IV Cycle Track along Sunflower Avenue would encourage nonmotorized modes of transportation and healthy, active lifestyles. The new pathways would allow residents, employees, and visitors to access proposed open space and recreational amenities and other on-site uses. The project would also provide new and enhanced traffic control devices such as traffic signals and stop signs at new access points and intersections to provide a safer network of travel ways. Therefore, the project would not conflict with this goal and policy.
Policy M-3.2: Enhance nonmotorized travelways with amenities such as landscaping, shade trees, lighting, benches, crosswalks, rest stops, bicycle parking, and support facilities that promote a pleasant and safe experience.	**No Conflict.** The proposed project would include roadway and streetscape modifications and improvements, including landscaping and street furniture, along Sunflower Avenue, Bear Street, and South Plaza Drive. As described above, the project would provide 28 bicycle spaces and add a Class I Bike Path along Bear Street and a Class II Bike Lane or Class IV Cycle Track along Sunflower Avenue along the edges of the project site. The project would also provide new and enhanced traffic control devices such as traffic signals and stop signs at new access points and intersections. Therefore, the project would not conflict with this policy.
Policy M-3.6: Enhance first and last mile connectivity to transit facilities through safe, accessible, and convenient linkages.	**No Conflict.** The project site is located in the GPU's designated Transit Opportunity Corridor. The OCTA provides public transit service to and from the project area and operates one bus stop along the project site frontage on Sunflower Avenue, and another stop along South Plaza Drive, which bisects the site. Multiple bus stops are available within the vicinity of the project site that offer consistent headway to destinations throughout Orange County and beyond, including the following routes: Local Routes 55, 57, 76, 86; Community Route 150; and Bravo Limited Stop Service 553. Bus stops would continue to be provided but may be relocated along the project frontages as a part of the project in collaboration with OCTA. Therefore, the project would not conflict with this policy.
GOAL M-4: Coordinated transportation planning efforts with land use and design strategies that encourage sustainable development and achieve broader community goals.	**No Conflict.** The project would be developed within an existing urbanized area that provides an established network of roads and freeways that provide local and regional access to the area, including the project site. Specifically, the project site is located within a TPA (i.e., within 0.5-mile of existing or planned major transit stops, such as those described above); proximity to transit encourages the reduction of vehicle use and promotes

Table 4.8-3: Applicable Goals, Policies, and Objectives of the GPU Elements

GPU Elements' Goals, Policies, and Objectives	Would the Project Conflict?
	traffic reduction strategies. Additionally, the proposed project would construct a new mixed-use community near existing residential and commercial land uses. Integrating these proposed uses would improve the accessibility and walkability of the project area, thereby reducing the need for vehicle use. The City's GPU Land Use Element also designates the project site as District Center-High (DC-5) within the South Bristol Street Focus Area. Development in the DC-5 designation is intended to provide urban retail, residential, mixed-use, and employment centers with an intensity of up to 5.0 floor area ratio and/or 125 dwelling units per acre and a maximum height of 25 stories. The overall proposed residential density would equate to approximately 92 dwelling units per acre, which would be within the permitted density. With regard to floor area ratio, the project would include approximately 1,850,000 square feet of residential building space, 80,000 square feet of retail space, and 300,000 square feet of office space. As such, development of 2,230,000 square feet of such uses on the 17.2-acre site would result in a proposed floor area ratio of approximately 2.98, which would be within the permitted 5.0 floor area ratio. As the project would build out the density/uses envisioned in the GPU and since development of the Specific Plan would require City approval, the project would not conflict with this goal.
Policy M-4.4: Ensure that all development projects pay their fair share of the system improvements necessary to accommodate the transportation needs of their projects.	**No Conflict**. As discussed previously, the proposed project would include roadway and streetscape modifications and improvements, including landscaping and street furniture, along Sunflower Avenue, Bear Street, and South Plaza Drive to accommodate circulation needs of the project. Through the City's development permitting process, the proposed project would be required to comply with all City Ordinances related to fair share funding or development fees to provide for new public facilities. Therefore, the project would not conflict with this policy.
Policy M-4.5: Ensure that building placement and design features create a desirable and active streetscape, by prioritizing pedestrian access directly from the street and placing parking lots to the rear of a development site.	**No Conflict.** The project is located within a Pedestrian Opportunity Zone, as identified in the City's GPU and would provide a pedestrian network allowing residents, visitors, and other users to circulate from one space to another throughout The Village in an enjoyable and comfortable environment through its sidewalks, pedestrian paths, and fitness loop. The project would provide parking to accommodate residents and visitors that drive to and from The Village by a combination of underground parking, above-ground structure parking, and on-street parking. Therefore, the project would not conflict with this policy.
Policy M-4.6: Promote reductions in automobile trips and vehicle miles traveled by encouraging transit use and nonmotorized transportation as alternatives to augmenting roadway capacity.	**No Conflict**. As discussed in Section 4.13, Transportation, the project site is located within a HQTA and TPA. Per the City's Traffic Impact Study Guidelines, projects located within TPAs have the potential to reduce

Table 4.8-3: Applicable Goals, Policies, and Objectives of the GPU Elements

GPU Elements' Goals, Policies, and Objectives	Would the Project Conflict?
	VMT per service population and result in a less than significant transportation impact. Furthermore, the project would also promote nonmotorized transportation by providing 28 bicycle spaces and adding a Class I Bike Path along Bear Street and a Class II Bike Lane or Class IV Cycle Track along Sunflower Avenue. Therefore, the project would not conflict with this policy.
Policy M-4.8: Encourage physical and operational improvements to reduce noise levels around major roads, freeways, and rail corridors, in particular around sensitive land uses.	**No Conflict**. As discussed in Section 4.9, Noise, the proposed project would contain noise attenuating features (e.g., sound walls, buildings, landscaping, and topography). Project-related long-term operational noise impacts resulting from mobile sources would be less than significant, including for sensitive receptors. Therefore, the project would not conflict with this policy.
Policy M-4.9: Utilize land use, building, site planning, and technology solutions to mitigate exposure to transportation-related air pollution, especially in environmental justice focus areas.	**No Conflict**. The project site is located within a TPA (i.e., within 0.5-mile of existing or planned major transit stops, such as those described above); proximity to transit encourages the reduction of vehicle use and promotes traffic reduction strategies. Additionally, the proposed project would construct a new mixed-use community near existing residential and commercial land uses. Therefore, the project would help to reduce transportation-related air pollution by reducing VMT. The project would not conflict with this policy.
Goal M-5: A transportation system that is attractive, safe, state-of-the-art, and supports community, environmental, and conservation goals. **Policy M-5.1:** Improve the beauty, character, and function of travel ways with amenities such as landscaped parkways and medians, bike lanes, public art, and other amenities. **Policy M-5.4:** Leverage opportunities along streets and public rights-of-way to improve water quality through use of landscaping, permeable pavement, and other best management practices.	**No Conflict.** The proposed project would include roadway and streetscape modifications and improvements along Sunflower Avenue, Bear Street, and South Plaza Drive in addition to a new internal network of private streets and drives that offer access throughout the site. As discussed above, new and enhanced traffic control devices such as traffic signals and stop signs would also be integrated at new access points and intersections. The project would include new curb-adjacent landscape buffer and street furniture throughout the site. Furthermore, the project would also promote bicycle use by providing 28 bicycle spaces and adding a Class I Bike Path along Bear Street and a Class II Bike Lane or Class IV Cycle Track along Sunflower Avenue along the edges of the project site. Therefore, the project would not conflict with this goal or policies.
Public Services Element	
Goal PS-1: Provide quality and efficient facilities that are adequately funded, accessible, safe, and strategically located. **Policy PS-1.10:** Require that new development pays its fair share of providing improvements to existing or creating new public facilities and their associated costs and services.	**No Conflict.** Development of the project would include payment of applicable fees to the City's general fund for fire protection facilities, police protection facilities, and library facilities, as well as the payment of developer/impact fees pursuant to SB 50. Therefore, the project would not conflict with this policy.
Goal PS-2: Preserve a safe and secure environment for all people and property.	**No Conflict.** The project would ensure a safe and secure environment by incorporating applicable Crime Prevention through Environmental Design measures and

Table 4.8-3: Applicable Goals, Policies, and Objectives of the GPU Elements

GPU Elements' Goals, Policies, and Objectives	Would the Project Conflict?
	the Orange County Fire Authority's Fire Prevention Guidelines. The project would also comply with the California Fire Code. Therefore, the project would not conflict with this policy.
Policy PS-2.1: Collaborate with the Police Department and the Fire Authority to promote greater public safety through implementing Crime Prevention through Environmental Design (CPETD) principles for all development projects.	**No Conflict.** As discussed above, the project would incorporate applicable Crime Prevention through Environmental Design measures. Therefore, the project would not conflict with this policy.
Policy PS-2.2: Require all development to comply with the provisions of the most recently adopted fire and building codes and maintain an ongoing fire inspection program to reduce fire hazards.	**No Conflict.** The project would be required to comply with CBC and California Fire Code requirements related to fire/life safety and design provisions as well as domestic and hydrant fire flow. The project would be developed in compliance with guidelines from Orange County Fire Authority related to fire prevention and would be subject to approval by the City's Building Division. Therefore, the project would not conflict with this policy.
Goal PS-3: Supply, maintain, and expand City services and infrastructure improvements through innovative funding options and sustainable practices. **Policy PS-3.5:** Incorporate sustainable design and Low Impact Development (LID) techniques for stormwater facilities and new development to achieve multiple benefits, including enhancing, preserving, and creating open space and habitat; reducing flooding; and improving runoff water quality.	**No Conflict.** The project would be required to comply with the requirements of the Santa Ana Regional Municipal Separate Storm Sewer System Permit and Orange County Drainage Area Management Plan to develop a project-specific water quality management plan that would describe implementation of LID infrastructure and non-structural, structural, and source control and treatment control best management practices (BMPs) to protect surface water quality. The project would incorporate stormwater management and treatment measures such as surface bio-filtration planters, green roofs, and localized capture and reuse. Approval of the water quality management plan would be required prior to the issuance of a building or grading permit. Therefore, the project would not conflict with this goal or policy.
Policy PS-3.8: Promote cost-effective conservation strategies and programs that increase water use efficiency.	**No Conflict.** The project would be required to comply with the California Plumbing Code, which sets efficiency standards, such as maximum flow rates for plumbing fittings and fixtures, including showerheads and lavatory faucets. The project would also be required to comply with flow rates for indoor water fixtures per the CALGreen Code. Further, the project would include native and drought-tolerant plants, shrubs, and ground cover planting areas throughout the project site and adjacent to streets. Low-water turf would be installed on recreation lawns. To reduce water usage, the project would consider spray irrigation for turf and ground-cover areas and drip/flood irrigation for areas with trees and vine. Therefore, the project would not conflict with this policy.
Policy PS-3.10: Encourage new development and reuse projects to incorporate recycling and organics collection activities aligned with state waste reduction goals.	**No Conflict.** The City of Santa Ana contracts waste management and recycling services with Republic Services. The contract includes services that maximize solid recycling and organics recycling by residents and

Table 4.8-3: Applicable Goals, Policies, and Objectives of the GPU Elements

GPU Elements' Goals, Policies, and Objectives	Would the Project Conflict?
	businesses to help the City meet State recycling goals. This provider would continue to service the project. Therefore, the project would not conflict with this policy.
Policy PS-3.12: Maintain and upgrade sewer and water infrastructure through impact fees from new development and exploring other funding sources.	**No Conflict**. Through the City's development permitting process, the proposed project would be required to comply with all City Ordinances related to fair share funding or development fees to provide for new public facilities. Therefore, the project would not conflict with this policy.
Conservation Element	
Goal CN-1: Protect air resources, improve regional and local air quality, and minimize the impacts of climate change.	**No Conflict**. As discussed in Sections 4.1, Air Quality and 4.5, Greenhouse Gas Emissions, the project would result in less than significant impacts with mitigation incorporated for air quality and less than significant impacts for greenhouse gas emissions. As such, the project would not conflict with this policy.
Policy CN-1.6: Promote development that is mixed use, pedestrian friendly, transit oriented, and clustered around activity centers. **Policy CN-1.7:** Improve the city's jobs/housing balance ratio by supporting development that provides housing and employment opportunities to enable people to live and work in Santa Ana.	**No Conflict**. The project would construct approximately 1,583 residential units, 80,000 square feet of retail space, and 300,000 square feet of office space in a HQTA and TPA. The project would result in an increase of approximately 215,951 square feet of commercial uses on-site when compared to existing uses on-site. The project's provision of open space and amenities and proximity to transit would encourage walkability and use of gathering spaces in the City. In addition, project implementation would generate a net increase of 657 jobs compared to existing conditions and would slightly reduce (improve) the jobs to housing ratio. Therefore, the project would not conflict with these policies.
Policy CN-1.8: Promote use of alternate modes of transportation in the City of Santa Ana, including pedestrian, bicycling, public transportation, car sharing programs, and emerging technologies. **Policy CN-1.12:** Encourage the use of low or zero emission vehicles, bicycles, nonmotorized vehicles, and car-sharing programs by supporting new and existing development that includes sustainable infrastructure and strategies such as vehicle charging stations, drop-off areas for ride-sharing services, secure bicycle parking, and transportation demand management programs.	**No Conflict**. The project's proposed internal network of pedestrian pathways would allow residents, employees, and visitors to access proposed open space and recreational amenities and other on-site uses. The project would also promote bicycle use by providing 28 bicycle spaces and adding a Class I Bike Path along Bear Street and a Class II Bike Lane or Class IV Cycle Track along Sunflower Avenue along the edges of the project site. The project would be designed with LEED Certified or equivalent green building standards and would feature vehicle parking spaces equipped with EV charging stations in accordance with Title 24 and City requirements. Therefore, the project would not conflict with these policies.
Policy CN-1.18: Coordinate with park renovation and new development to address air quality and climate impacts by reducing the heat island effect by providing green infrastructure and shade, and reducing air pollution by providing vegetation that removes pollutants and air particles.	**No Conflict**. The project would provide approximately 7.5 acres of publicly accessible open space and common areas. Public open spaces at The Village would consist of active spaces, outdoor seating, garden paseos, a fitness loop, and a recreational lawn. Such spaces would help reduce the heat island effect. The project's structures would also incorporate the use of Energy Star–labeled products and appliances; use of LED lighting or other energy-efficient lighting technologies to reduce electricity use, and fenestration

Table 4.8-3: Applicable Goals, Policies, and Objectives of the GPU Elements

GPU Elements' Goals, Policies, and Objectives	Would the Project Conflict?
	designed for solar orientation as well as the installation of solar photovoltaic panels on the buildings to generate energy on-site. The project would also further support and promote environmental sustainability by complying with regulatory requirements and LEED-certified or equivalent green building standards. These features may include but would not be limited to environmentally friendly materials, such as locally produced and recycled building construction materials; and passive shading for indoor spaces, increased natural daylighting and ventilation; and window technologies such as low-emission coatings and insulated daylighting panels. While these measures are intended to reduce GHG emissions, they would also improve air quality. Therefore, the project would not conflict with this policy.
Goal CN-3: Reduce consumption of and reliance on nonrenewable energy, and support the development and use of renewable energy sources.	**No Conflict**. As discussed above, the project's structures would also incorporate the use of Energy Star–labeled products and appliances, LED lighting or other energy-efficient lighting technologies to reduce electricity use, and fenestration designed for solar orientation as well as the installation of solar photovoltaic panels on the buildings to generate energy on-site. Therefore, the project would not conflict with this policy.
Policy CN-3.3: Promote energy-efficient development patterns by clustering mixed use developments and compatible uses adjacent to public transportation.	**No Conflict**. The project site is located within a TPA (i.e., within 0.5-mile of existing or planned major transit stops). The project site is located in the GPU's designated Transit Opportunity Corridor. The OCTA provides public transit service to and from the project area and operates one bus stop along the project site frontage on Sunflower Avenue, and another stop along South Plaza Drive, which bisects the site. Multiple bus stops are available within the vicinity of the project site that offer consistent headway to destinations throughout Orange County and beyond, including the following routes: Local Routes 55, 57, 76, 86; Community Route 150; and Bravo Limited Stop Service 553. Bus stops would continue to be provided but may be relocated along the project frontages as a part of the project in collaboration with OCTA. Therefore, the project's mixed-use development would be clustered adjacent to public transportation, and the project would not conflict with this policy.
Policy CN-3.4: Encourage site planning and subdivision design that incorporates the use of renewable energy systems. **Policy CN-3.7:** Incorporate energy conservation features in the design of new construction and rehabilitation projects.	**No Conflict**. As discussed above, the project's structures would also incorporate the use of Energy Star–labeled products and appliances, LED lighting or other energy-efficient lighting technologies to reduce electricity use, and fenestration designed for solar orientation as well as the installation of solar photovoltaic panels on the buildings to generate energy on-site. The project would also further support and promote environmental sustainability by complying with regulatory requirements and LEED-certified or equivalent green building standards. Therefore, the project would not conflict with this policy.

Table 4.8-3: Applicable Goals, Policies, and Objectives of the GPU Elements

GPU Elements' Goals, Policies, and Objectives	Would the Project Conflict?
Policy CN-3.5: Promote and encourage the planting of native and diverse tree species to improve air quality, reduce heat island effect, reduce energy consumption, and contribute to carbon mitigation with special focus in environmental justice areas.	**No Conflict.** The project would provide a variety of native trees, plants, and shrubs throughout the project site and its walkways, gathering areas, and open space and recreational amenities. There are approximately 350 trees on-site involving 27 distinct species of which two species are native (western sycamore [*Platanus racemosa]* and western redbud *[Cercis occidentalis*]. All trees located within the street right-of-way intended for removal as part of the project would need to be replaced. Proposed street trees would be selected from the City of Santa Ana Recommended Tree List, with additional trees that may be added subject to approval by the Department of Public Works. As such, the project would add to the City's urban forest by enhancing the environmental and aesthetic qualities of the site. Therefore, the project would not conflict with these policies.
Goal CN-4: Conserve and replenish existing and future water resources.	**No Conflict.** The project would incorporate stormwater management and treatment measures such as surface bio-filtration planters, green roofs, and localized capture and reuse. As such, the project would implement stormwater conservation features and would not conflict with this policy.
Policy CN-4.2: Encourage public and private property owners to plant native or drought-tolerant vegetation.	**No Conflict.** The project would include native and drought-tolerant plants, shrubs, and ground cover planting areas throughout the project site and adjacent to streets. Low-water turf would be installed on recreation lawns. Therefore, the project would not conflict with this policy.
Policy CN-4.4: Promote irrigation and rainwater capture systems that conserve water to support a sustainable community.	**No Conflict.** The project's outdoor water usage would be required by CALGreen to comply with the local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance, whichever is more stringent. The project would include native and drought-tolerant plants, shrubs, and ground cover planting areas throughout the project site and adjacent to streets. Low-water turf would be installed on recreation lawns. To reduce water usage, the project would consider spray irrigation for turf and ground-cover areas and drip/flood irrigation for areas with trees and vines. Therefore, the project would not conflict with this policy.
Policy CN-4.6: Work with public and private property owners to reduce storm water runoff and to protect the water quality percolating into the aquifer and into any established waterway.	**No Conflict.** The project would be required to develop and implement a water quality management plan that includes BMPs and LID design features to provide on-site treatment of stormwater and prevent pollutants from on-site uses from leaving the site. The project would incorporate stormwater management and treatment measures such as surface bio-filtration planters, green roofs, and localized capture and reuse. Therefore, the project would not conflict with this policy.
Open Space Element	

Table 4.8-3: Applicable Goals, Policies, and Objectives of the GPU Elements

GPU Elements' Goals, Policies, and Objectives	Would the Project Conflict?
Goal OS-1: Provide an integrated system of accessible parks, recreation facilities, trails, and open space to serve the City of Santa Ana. **Policy OS-1.5:** Provide a mix of community, neighborhood, and special use parks, along with greenway corridors, natural areas, and landscape areas, to meet community needs for greenspace, recreation space, social space, and trail connectivity.	**No Conflict.** At full buildout, the project would provide approximately 7.5 acres of publicly accessible open space and common areas. Public open spaces at The Village would consist of active spaces, outdoor seating, garden paseos, a fitness loop, and recreational lawn. The project would also provide private open space amenities, consisting of outdoor balconies and patios, pools and spas, outdoor kitchens, and communal gathering spaces. Therefore, the project would not conflict with this goal and policy.
Policy OS-1.9: Require all new development to provide adequate parks and open space, including via parkland dedication or development fees, in order to meet the City's park standard. Ensure that new development includes pedestrian and multi-modal travel-ways to promote a quality living environment. For new development within park deficient and environmental justice areas, prioritize the creation and dedication of new public parkland over the collection of impact fees.	**No Conflict.** At full buildout, the project would provide approximately 7.5 acres of publicly accessible open space and common areas. The project would contribute additional public park and recreation space to the City's available public parkland and recreational spaces at a 2.0 ratio, which is higher than the 1.2 ratio assessed for the GPU buildout, in the GPU PEIR. Additionally, the proposed project would contribute to additional park and recreation space in the City through the contribution of fees. Therefore, the project would not conflict with this policy.
Goal OS-2: Provide welcoming, inclusive, safe, and healthy parks, recreation facilities, and activities to serve Santa Ana residents regardless of age, ability, or income. **Policy OS-2.1:** Provide a variety of recreation facilities and activities to meet the diverse needs of the community. Consider needs for indoor and outdoor recreation opportunities, as well as traditional and trending activities.	**No Conflict.** The project would redevelop the underutilized and currently vehicle-centric site by introducing residential uses and increasing density of commercial uses and providing approximately 7.5 acres of publicly accessible open space and common areas. The 7.5 acres of publicly accessible open space and common areas would include active spaces, outdoor seating, garden paseos, a fitness loop, and recreational lawn. As such, the project would provide passive and active open space and recreational amenities that would be accessible to the residents and visitors. Therefore, the project would not conflict with this goal and policy.
Goal OS-3: Maintain and manage parks, recreation facilities, trails and open space to sustain City assets and support safe use. **Policy OS-3.5:** Encourage the planting of native and diverse tree species in public and private spaces to reduce heat island effect, reduce energy consumption, and contribute to carbon mitigation.	**No Conflict.** The project would provide a variety of native trees, plants, and shrubs throughout the project site and its walkways, gathering areas, and open space and recreational amenities. Proposed street trees would be selected from the City of Santa Ana Recommended Tree List, with additional trees that are may be added subject to approval by the Department of Public Works. As such, the project would add to the City's urban forest by enhancing the environmental and aesthetic qualities of the site. Therefore, the project would not conflict with this policy.
Policy OS-3.6: Integrate drought tolerant or native plantings, waterwise irrigation, design and maintenance efficiencies, and sustainable development practices to reduce water use and energy consumption.	**No Conflict.** The project would include native and drought-tolerant plants, shrubs, and ground cover planting areas throughout the project site and adjacent to streets. Low-water turf would be installed on recreation lawns. To reduce water usage, the project would consider spray irrigation for turf and ground-cover areas and drip/flood irrigation for areas with trees and vine. As such, the project would integrate such landscaping to reduce water usage.

Table 4.8-3: Applicable Goals, Policies, and Objectives of the GPU Elements

GPU Elements' Goals, Policies, and Objectives	Would the Project Conflict?
	Additionally, the project's structures would also incorporate the use of Energy Star–labeled products and appliances; use of LED lighting or other energy-efficient lighting technologies to reduce electricity use, and fenestration designed for solar orientation as well as the installation of solar photovoltaic panels on the buildings to generate energy on-site. The project would also further support and promote environmental sustainability by complying with regulatory requirements and LEED-certified or equivalent green building standards. These features may include, but would not be limited to, environmentally friendly materials, such as locally produced and recycled building construction materials; and passive shading for indoor spaces, increased natural daylighting and ventilation; and window technologies such as low-emission coatings and insulated daylighting panels. While these measures are intended to reduce GHG emissions, they would also reduce overall energy consumption for the project. Therefore, the project would not conflict with this policy.
Noise Element	
Goal N-1: Ensure that existing and future land uses are compatible with current and projected local and regional noise conditions.	**No Conflict**. As discussed in Section 4.9, Noise, with implementation of project-specific MM NOI-1, which would require a nighttime construction noise control plan, the proposed project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Project-related impacts would be less than significant with mitigation in this regard. As such, the project would be compatible with local and regional noise conditions and would not conflict with this policy.
Policy N-1.2: Encourage functional and attractive designs to mitigate excessive noise levels.	**No Conflict**. As discussed in Section 4.9 Noise, the noise and vibration evaluation concluded the project would not result in excessive noise levels with implementation of project-specific MM NOI-1, which would require a nighttime construction noise control plan. Therefore, the project would not conflict with this policy.
Policy N-1.4: Protect noise sensitive land uses from excessive, unsafe, or otherwise disruptive noise levels.	**No Conflict.** The project would not result in excessive, unsafe, or otherwise disruptive noise levels for sensitive receptors with implementation of project-specific MM NOI-1, which would require a nighttime construction noise control plan. The proposed project would be required to comply with Section 18.312 of the SAMC, which prohibits any source of sound at any location from exceeding the City's exterior daytime and nighttime noise standards. With implementation of project-specific MM NOI-1, the proposed project would comply with the SAMC, which would ensure that potential noise impacts from the project would be less than significant. Therefore, the project would not conflict with this policy.

Table 4.8-3: Applicable Goals, Policies, and Objectives of the GPU Elements

GPU Elements' Goals, Policies, and Objectives	Would the Project Conflict?
Goal N-2: Reduce the impact of known sources of noise and vibration.	**No Conflict**. As discussed in Section 4.9 Noise, the noise and vibration evaluation concluded the project would not result in excessive noise levels with implementation of project-specific MM NOI-1, which would require a nighttime construction noise control plan. Therefore, the project would not conflict with this policy.
Policy N-2.1: Reduce noise generated from traffic, railroads, transit, and airports to the extent feasible.	**No Conflict**. The project site is located within a HQTA and TPA. Per the City's Traffic Impact Study Guidelines, projects located within TPAs have the potential to reduce VMT per service population. In addition, the project would redevelop a conventional commercial area into a mixed-use development that includes residential, office, and commercial retail uses where people would be able to live and work locally and utilize active transportation (e.g., walk or bike) to travel, thus also reducing VMT. Reduced VMT would reduce mobile-related noise. Therefore, the project would not conflict with this policy.
Policy N-2.2: Minimize noise impacts from commercial and industrial facilities adjacent to residential uses or zones where residential uses are permitted.	**No Conflict.** With implementation of project-specific MM NOI-1, the proposed project would comply with Section 18.312 of the SAMC, which prohibits any source of sound at any location from exceeding the City's exterior daytime and nighttime noise standards. The proposed project would also adhere to RR NOI-1, which cites CBC Title 24, Part 2, Volume 1, Chapter 12, Interior Environment, Section 1207.11.2, Allowable Interior Noise Levels, requiring that interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. The noise metric is evaluated as either the day-night average sound level or the CNEL, consistent with the noise element of the local general plan. Compliance with these regulations would ensure the minimization of noise impacts from surrounding uses. Therefore, the project would not conflict with this policy.
Policy N-2.3: Minimize the effects of intermittent, short-term, or other nuisance noise sources.	**No Conflict.** As discussed above, with implementation of project-specific MM NOI-1, the proposed project would comply with Section 18.312 of the SAMC. The proposed project would also adhere to RR NOI-1, which cites CBC Title 24, Part 2, Volume 1, Chapter 12, Interior Environment, Section 1207.11.2, Allowable Interior Noise Levels. Compliance with these regulations would ensure the minimization of intermittent or other nuisance noise sources. Therefore, the project would not conflict with this policy.
Goal N-3: Protect sensitive land uses from airport related noise impacts.	**No Conflict.** Future sensitive uses proposed under the project would be located outside of the 60 dBA CNEL noise contour of John Wayne Airport (SNA) as shown in Figure 4.9-1 in Section 4.9 Noise. Additionally, the project site is not located within the vicinity of a private airstrip or related facilities. Therefore, the project would not conflict with this policy.

Table 4.8-3: Applicable Goals, Policies, and Objectives of the GPU Elements

GPU Elements' Goals, Policies, and Objectives	Would the Project Conflict?
Policy N-3.1: Residential development within the John Wayne Airport 65 dBA CNEL Noise Contour or greater is not supported.	**No Conflict.** The project site is outside of the John Wayne Airport (SNA) 65 dBA CNEL Noise Contour as shown in Figure 4.9-1 in Section 4.9 Noise. Therefore, the project would not conflict with this policy.
Safety Element	
Goal S-1: Protect life and minimize property damage, social and economic disruptions caused by flood and inundation hazards.	**No Conflict.** The project is not located within a flood inundation hazard area and would protect public health and property by compliance with existing federal, state, regional, and local regulations related to natural hazards and other public safety concerns. Therefore, the project would not conflict with this goal.
Policy S-1.7: Encourage site drainage features that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events on private and public developments.	**No Conflict.** As detailed in Section 4.7, Hydrology and Water Quality, the project would incorporate LID/site design and source control BMPs to address post-construction stormwater runoff management. The project would incorporate stormwater management and treatment measures such as surface bio-filtration planters, green roofs, and localized capture and reuse. Additionally, a project-specific water quality management plan would be developed which identifies operational and maintenance requirements for all structural and treatment control BMPs which include sediment basins and vegetation. LID measures may include site planning (e.g., reduce impervious areas, preserve open space, minimize land disturbance) and post-construction structural BMPs (e.g., bioretention swales, pervious pavements, cisterns), to reduce potential runoff. As such, the project would not conflict with this policy.
Goal S-2: Protect residents and environmental resources from contaminated hazardous material sites and minimize risks associated with the use, production, storage, transport, and disposal of hazardous materials. **Policy S-2.4:** Determine the presence of hazardous materials and/or waste contamination prior to approval of new uses and require that appropriate measures be taken to protect the health and safety of site users and the community.	**No Conflict.** As detailed in Section 4.6, Hazards and Hazardous Materials, the Phase I Environmental Site Assessment (refer to Appendix E) conducted for the proposed project revealed no evidence of RECs and/or controlled RECs in connection with the project site. In addition, the project site is not included on any hazardous waste site lists included in the Department of Toxic Substances Control's EnviroStor database, which includes CORTESE sites and the Environmental Protection Agency's database of regulated facilities, or other lists compiled pursuant to Section 65962.5 of the Government Code. Project construction activities would include demolition, excavation, on-site grading, and building construction, which would require use of fuel and oils associated with construction equipment, as well as coatings, paints, adhesives, and cleaners. Operation of the project would include materials typically associated with residential and commercial uses, including restaurants and retail stores. The project would comply with all applicable federal, state, and local requirements concerning the use, storage, and management of hazardous materials. Therefore, this project would not conflict with this goal and policy (refer to RR HAZ-1 through RR HAZ-4).

Table 4.8-3: Applicable Goals, Policies, and Objectives of the GPU Elements

GPU Elements' Goals, Policies, and Objectives	Would the Project Conflict?
Goal S-3: Provide a safe environment for all Santa Ana residents and workers while minimizing risk.	**No Conflict.** As detailed in Section 4.1, Air Quality, Section 4.4, Geology and Soils, Section 4.5, Greenhouse Gas Emissions, Section 4.6, Hazards and Hazardous Materials, Section 4.7, Hydrology and Water Quality, and Section 4.13, Transportation, the project's impacts related to safety would be less than significant or less than significant with mitigation. Therefore, the project would not conflict with this policy.
Policy S-3.2: Ensure that all new development abides by the current City and state seismic and geotechnical requirements and that projects located in areas with potential for geologic or seismic hazards prepare a hazards study.	**No Conflict.** As detailed in Section 4.4, Geology and Soils, the project would be designed and constructed to meet or exceed current design standards as found in the latest CBC and other applicable local, state, and federal codes to minimize impacts related to fault rupture. Additionally, project-specific MM's G-1 and G-2 would be implemented pursuant to the CBC requirements for review and approval by the City's Building and Safety Division as part of the construction permit approval process. Therefore, the project would not conflict with this policy.
Goal S-4: Protect the safety of the general public from aircraft hazards. **Policy S-4.1:** For development projects that include structures higher than 200 feet above existing grade, the City shall inform the ALUC and submit materials to the ALUC for review. Proposed projects that would exceed a height of 200 feet above existing grade shall be required to file Form 7460-1 with the Federal Aviation Administration. **Policy S-4.2:** Do not approve buildings and structures that would penetrate FAR Part 77 Imaginary Obstruction Surfaces, unless consistent with the California Public Utilities Code Section 21240, such building or structure is determined by FAA to pose "no hazard" to air aviation. Additionally, under this policy, applicants proposing buildings or structures that penetrate the 100:1 Notification Surface will be required to file a Form 7460-1 Notice of Proposed Construction or Alteration with FAA and provide a copy of the FAA determination to the City and the ALUC. **Policy S-4.3:** Minimize hazards to aeronautical operations by ensuring land uses do not emit excessive glare, light, steam, smoke, dust, or electronic interference in compliance with FAA regulations and the John Wayne Airport Environs Land Use Plan. **Policy S-4.5:** Prior to the amendment of the City's general plan or a specific plan, or the adoption or approval of a zoning ordinance or building regulation within the planning boundary established by the ALUC, and pursuant to Public Utilities Code Section 21676, the City shall first refer the proposed action to the ALUC.	**No Conflict.** As detailed in Section 4.6, Hazards and Hazardous Materials, the project site is located approximately 1.5 miles northwest of John Wayne Airport (SNA) and outside any SNA Safety Compatibility Zones (including the Runway Protection Zones), and the 60 CNEL noise contour. Therefore, the project would not result in a safety hazard or excessive noise for people residing or working in the project area. However, the project site is located within the AELUP Notification Area for SNA, which includes the FAR Part 77 Notification Area.[12] As the proposed project's buildings would have a maximum height of 25 stories, the project is required to comply with FAR Part 777 to refer the project to the Orange County ALUC for review, pursuant to the California Public Utilities Code Section 21676. Upon completion of the review process, the project would not result in a safety hazard related to aircraft. Therefore, the project would not conflict with this goal and these policies.

[12] City of Santa Ana General Plan, 2020, Safety Element, Figure S-4, Airport Safety Zones, available at: https://general-plan-santa-ana-ca.proudcity.com/documents/figure-s-4-airport-safety-zones/.

Table 4.8-3: Applicable Goals, Policies, and Objectives of the GPU Elements

GPU Elements' Goals, Policies, and Objectives	Would the Project Conflict?
Policy S-4.6: Provide notice of airport in the vicinity where residential development is being proposed within the 60 dBA CNEL noise contours for the John Wayne Airport.	**No Conflict.** The project site is not located within the 60 dBA CNEL noise contours. Therefore, the project would conflict with this policy.
Land Use Element	
Goal LU-1: Provide a land use plan that improves quality of life and respects our existing community. **Policy LU-1.1:** Foster compatibility between land uses to enhance livability and promote healthy lifestyles. **Policy LU-1.6:** Encourage residential mixed-use development, within the City's District Centers, Urban Neighborhoods, and adjacent to high quality transit.	**No Conflict.** The project site has a General Plan Land Use designation of District Center-High (DC-5). The project would construct approximately 1,583 residential units, 80,000 square feet of retail space, and 300,000 square feet of office space in a HQTA and TPA. The project's provision of open space and amenities, proximity to transit, and proximity to a variety of land uses on site and within the vicinity would provide the residents, employees, and visitors with an enhanced user experience and pedestrian-friendly environment. Therefore, the project would not conflict with these policies.
Policy LU-1.5: Incentivize quality infill residential development that provides a diversity of housing types and accommodates all income levels and age groups.	**No Conflict.** The project would introduce residential uses to the site where none currently exist. Specifically, the project would provide 1,583 residential units, consisting of a mix of studio, one-bedroom, two-bedroom, and three-bedroom units with housing affordable to a range of households at various income levels.
Policy LU-1.9: Evaluate individual new development proposals to determine if the proposals are consistent with the General Plan and to ensure that they do not compound existing public facility and service deficiencies.	**No Conflict.** As discussed in Section 4.11, Public Services, implementation of the project would result in less than significant impacts related to public facilities and service deficiencies. Development of the project would include payment of applicable fees to the City's general fund for fire protection facilities, police protection facilities, and library facilities, as well as the payment of developer/impact fees pursuant to SB 50. Therefore, the project would not conflict with this policy.
Goal LU-2: Provide a balance of land uses that meet Santa Ana's diverse needs. **Policy LU-2.1:** Provide a broad spectrum of land uses and development that offer employment opportunities for current and future Santa Ana residents. **Policy LU-2.2:** Encourage a range of commercial uses to capture a greater share of local spending and offer a range of employment opportunities.	**No Conflict.** The project would result in an increase of approximately 215,951 square feet of commercial uses on-site when compared to existing uses on-site. The proposed 80,000 square feet of retail space and 300,000 square feet of office would provide a range of employment opportunities and tenants. Therefore, the project would not conflict with the goal and policies.
Policy LU-2.5: Encourage infill mixed-use development at all ranges of affordability to reduce vehicle miles traveled, improve jobs/housing balance, and promote social interaction.	**No Conflict.** The project would introduce residential uses to the site where none currently exist. Specifically, the project would provide 1,583 residential units, consisting of a mix of studio, one-bedroom, two-bedroom, and three-bedroom units with housing affordable to a range of households at various income levels. The project would result in an increase of approximately 215,951 square feet of commercial uses on-site when compared to existing uses. The proposed residential units and open space would be located in close proximity to the retail and office uses on-site and

Table 4.8-3: Applicable Goals, Policies, and Objectives of the GPU Elements

GPU Elements' Goals, Policies, and Objectives	Would the Project Conflict?
	the vicinity, which would support reduction of VMT and promote opportunities for social interaction. Therefore, the project would not conflict with this policy.
Policy LU-2.7: Support land use decisions that encourage the creation, development, and retention of businesses in Santa Ana. **Policy LU-2.8:** Encourage land uses, development projects, and public art installations that promote the city's image as a cultural, governmental, and business-friendly regional center.	**No Conflict.** The project would construct approximately 1,583 residential units, 80,000 square feet of retail space, and 300,000 square feet of office space on an underutilized site, which currently includes large surface parking areas. The project would increase density of uses on site and introduce open space and recreational amenities to private residents and the public. The project would install public art that invites participation and interaction, adds local meaning, interprets the new community, and/or captures the unique character of the community. Proposed art would be sited to complement other features, such as a plaza or architectural components that acknowledge and respond to the presence of the art. Therefore, the project would not conflict with these policies.
Policy LU-2.10: Focus high density residential in mixed-use villages, designated planning focus areas, Downtown Santa Ana, and along major travel corridors.	**No Conflict.** As previously described, the project site is located in the City's South Bristol Focus Area. The proposed project would include 1,583 residential units on the 17.2-acre site, which would equate to an overall residential density of approximately 92 dwelling units per acre. Additionally, the project site is located within a SCAG-designated TPA and HQTA. Therefore, the project would not conflict with this policy.
Goal LU-3: Preserve and improve the character and integrity of existing neighborhoods and districts.	**No Conflict.** As previously described, the project site is currently developed with 164,049 square feet of commercial uses, which comprises approximately 22 percent of the 17.2-acre site. The remaining project site is comprised of surface parking. While the project site does not currently include residential uses, the project site is surrounded by commercial and multi-family residential uses. As such, the project's development of a mixed-use community with residential and commercial uses with a proposed pedestrian, bicycle, and vehicular network would improve the site and connectivity to the existing vicinity. The City's GPU Land Use Element also designates the project site as District Center-High (DC-5) within the South Bristol Street Focus Area. Development in the DC-5 designation is intended to provide urban retail, residential, mixed-use, and employment centers. As previously described, the project's proposed density, intensity and uses would be consistent with what was envisioned for the project site by the GPU. Therefore, the project would not conflict with this goal.
Policy LU-3.4: Ensure that the scale and massing of new development is compatible and harmonious with the surrounding built environment.	**No Conflict.** The project's varied building layouts and heights of the structures would provide horizontal and vertical articulation as well as visual interest. The project would include taller buildings with podiums, decks, and rooftops with amenities, as well as central and human-scale commercial and retail uses within the "Village Square" portion of the site, which includes outdoor

Table 4.8-3: Applicable Goals, Policies, and Objectives of the GPU Elements

GPU Elements' Goals, Policies, and Objectives	Would the Project Conflict?
	seating and gathering spaces. The project would provide landscaping and open space in between parcels to provide physical and visual buffers between buildings. The western portion of the project site is adjacent to Bear Street, which would provide a buffer between proposed uses and the existing residential uses to the west. The project would provide a 35-foot setback to provide distance between the proposed structures and the existing multi-family housing to the north. The southern portion of the project site is adjacent to Sunflower Avenue, Bear Street, which would provide a buffer between proposed uses and the existing surface parking and commercial uses further to the south. The project's mixed uses would be compatible with surrounding uses, and the proposed landscaping would enhance the streetscape and surroundings. Furthermore, the Design Guidelines in the project's Specific Plan, which would require City review and approval, would ensure that the scale and massing of development would be compatible and harmonious with the surrounding built environment. Therefore, the project would not conflict with the policy.
Policy LU-3.9: Improve the health of residents, students, and workers by limiting the impacts of construction activities and operation of noxious, hazardous, dangerous, and polluting uses that are in close proximity to sensitive receptors, with priority given to discontinuing such uses within environmental justice area boundaries.	**No Conflict.** As evaluated in Section 4.1, Air Quality, the project would result in less-than-significant impacts related to air quality during construction and less-than-significant impacts with mitigation related to air quality during operation. Operation of the proposed project is not anticipated to result in an elevated cancer or other health risk to nearby sensitive receptors. Further, as described in Section 4.5, Greenhouse Gas Emissions, the project would incorporate measures for energy efficiency and environmental sustainability. While these measures are intended to reduce GHG emissions, they would also improve air quality. Therefore, the project would not conflict with this policy.
Goal LU-4: Support a sustainable Santa Ana through improvements to the built environment and a culture of collaboration. **Policy LU-4.1:** Promote complete neighborhoods by encouraging a mix of complementary uses, community services, and people places within a walkable area.	**No Conflict.** Under existing conditions, the 17.2-acre project site consists of approximately 164,049 square feet of retail, restaurant, office, and theatre uses, surface parking, and lawn areas. The project would redevelop the underutilized and currently vehicle-centric site by introducing residential uses and increasing density of commercial uses and installing approximately 7.5 acres of publicly accessible open space and common areas. The 7.5 acres of publicly accessible open space and common areas would include active spaces, outdoor seating, garden paseos, a fitness loop, recreational lawn. As such, the project would provide a cohesive development that would provide a mix of complementary uses and an enhanced pedestrian experience. Therefore, the project would not conflict with this goal or policy.
Policy LU-4.5: Concentrate development along high-quality transit corridors to reduce vehicle miles traveled and transportation-related carbon emissions.	**No Conflict.** The project would construct approximately 1,583 residential units, 80,000 square feet of retail space, and 300,000 square feet of office space in a

Table 4.8-3: Applicable Goals, Policies, and Objectives of the GPU Elements

GPU Elements' Goals, Policies, and Objectives	Would the Project Conflict?
	HQTA and TPA. Therefore, the project would not conflict with this policy.
Historic Preservation Element	
Goal HP-1: Preserve and enhance Santa Ana's historic areas and resources to maintain a unique sense of place. **Policy HP-1.4:** Support land use plans and development proposals that actively protect historic and cultural resources. Preserve tribal, archeological, and paleontological resources for their cultural importance to communities as well as their research and educational potential.	**No Conflict.** As detailed in Section 4.2, Cultural Resources, there are no historic resources on the project site. The site has a low-to-moderate sensitivity for archaeological resources (see Section 4.2, Cultural Resources) and potentially fossil-bearing units may underlie the project area below the disturbed urban soils at the surface (see Section 4.4, Geology and Soils). As such, the project is required to implement GPU PEIR MMs CUL-6, GEO-2, and GEO-3, which would ensure the proper techniques and procedures are in place in the event archaeological or tribal resources are discovered during construction. Therefore, the project would not conflict with this goal or policy.
Urban Design Element	
Goal UD-1: Improve the physical character and livability of the City to promote a sense of place, positive community image, and quality environment.	**No Conflict.** As previously described, the project site is currently developed with 164,049 square feet of commercial uses, which comprises approximately 22 percent of the 17.2-acre site. The remaining project site is comprised of surface parking. The project would improve the underutilized site by providing approximately 1,583 residential units, 80,000 square feet of retail space, and 300,000 square feet of office space. The project would introduce accessible open space and recreational amenities for private residents and the public, including outdoor seating, garden paseos, a fitness loop, and recreational lawn. The public spaces would be accessible via landscaped pedestrian walkways and internal circulation. The project would install public art that invites participation and interaction, adds local meaning, interprets the new community, and/or captures the unique character of the community. Proposed art would be sited to complement other features, such as a plaza or architectural components that acknowledge and respond to the presence of the art. The project would improve the physical character and livability of the site and promote a sense of place, positive community image, and quality environment to residents, employees, and visitors. Therefore, the project would not conflict with this goal.
Policy UD-1.1: Ensure all developments feature high quality design, materials, finishes, and construction.	**No Conflict.** The project would feature high quality design, materials, finishes, and construction. The project design would emphasize a connection of indoor and outdoor living spaces by providing contemporary residential and commercial uses and private and public open space and recreational amenities. The architectural materials would include wood accents, brick and stone, metal, high-quality stucco and concrete, glass, and glazing. Building and architectural materials would be approved for use in the CBC, Title 24. The design aesthetic of project would reflect that of the adjacent

Table 4.8-3: Applicable Goals, Policies, and Objectives of the GPU Elements

GPU Elements' Goals, Policies, and Objectives	Would the Project Conflict?
	South Coast Metro area. Therefore, the project would not conflict with this policy.
Policy UD-1.2: Require public art as part of major developments and the public realm improvements.	**No Conflict.** The project would install public art that invites participation and interaction, adds local meaning, interprets the new community, and/or captures the unique character of the community. Proposed art would be sited to complement other features, such as a plaza or architectural components that acknowledge and respond to the presence of the art. Therefore, the project would not conflict with this policy.
Policy UD-1.3: Encourage site design that clearly defines public spaces through building placement and orientation. **Policy UD-1.4:** Incorporate public safety design features into private and public developments to prevent loitering, vandalism, and other undesirable activities. **Policy UD-1.5:** Encourage community interaction through the development and enhancement of plazas, open space, people places, and pedestrian connections with the public realm.	**No Conflict**. The project's public open space would include active spaces, outdoor seating, garden paseos, a fitness loop, and recreational lawn. Most of these features would be centrally located within the project site in the form of a plaza with landscaping. In addition, a garden and recreational lawn would be located within the northwestern portion of the project site, and a pocket park would be located within the northeastern portion of the project site. The public spaces would be accessible via landscaped pedestrian walkways and internal circulation. The project would ensure a safe and secure environment by incorporating applicable Crime Prevention through Environmental Design measures. Therefore, the project would not conflict with these policies.
Goal UD-2: Improve the built environment through sustainable development that is proportional and aesthetically related to its setting. **Policy UD-2.1:** Encourage development to enhance the existing environment through the use of creative architectural design and sustainable streetscape treatments that are consistent on each corridor. **Policy UD-2.2:** Employ buffers and other urban design strategies to encourage the compatibility of new development with the scale, bulk, and pattern of existing development.	**No Conflict.** At the ground level, the project would provide windows, facades, and architectural design that promote a pedestrian-scale environment. All residential buildings would have ground-level entrance lobbies that incorporate building amenities, open directly onto internal streets, and provide clear access to shared parking and landscape amenities. For commercial uses, the proposed The Village Santa Ana Specific Plan specifies that ground-level facades must have a minimum of 50 percent of commercial windows to provide transparency, visual interest, and eyes on the Village Square located at the southcentral portion of the site. Parking facades would have a 50 percent open façade for natural ventilation achieved via vertical fins, perforated metal, or similar to provide openness while visually shielding cars. The project would also provide landscaping and open space in between parcels to provide physical and visual buffers between buildings. In addition, the varied building layouts and heights of the structures would provide horizontal and vertical articulation as well as visual interest. Therefore, the project would not conflict with this goal or policies.
Policy UD-2.10: Promote planting of shade trees and require, where feasible, preservation and site design that uses appropriate tree species to shade parking lots, streets, and other facilities, with the goal of reducing the heat island effect.	**No Conflict.** The project would include trees for shade and landscaping between the parcels and along pathways, internal streets, Bear Street, South Plaza Drive, and Sunflower Avenue. Moreover, the project would reduce the amount of surface parking/paving on the site. Therefore, the project would not conflict with this policy.

Table 4.8-3: Applicable Goals, Policies, and Objectives of the GPU Elements

GPU Elements' Goals, Policies, and Objectives	Would the Project Conflict?
Policy UD-2.11: Encourage sustainable development through the use of drought-tolerant landscaping, permeable hardscape surfaces, and energy-efficient building design and construction.	**No Conflict.** The project would include native and drought-tolerant plants, shrubs, and ground cover planting areas throughout the project site and adjacent to streets. Low-water turf would be installed on recreation lawns. As such, the project would encourage sustainable development through drought-tolerant landscaping to reduce water usage. Additionally, the project would also incorporate energy reduction measures including the use of Energy Star–labeled products and appliances; use of LED lighting or other energy-efficient lighting technologies to reduce electricity use, and fenestration designed for solar orientation as well as the installation of solar photovoltaic panels on the buildings to generate energy on-site. The project would also further support and promote environmental sustainability by complying with regulatory requirements and LEED-certified equivalent green building standards. These features may include but would not be limited to environmentally friendly materials, such as locally produced and recycled building construction materials; passive shading for indoor spaces, increased natural daylighting and ventilation; and window technologies such as low-emission coatings and insulated daylighting panels. In addition, the project would use water-saving pool filters, pool/spa recirculating filtration equipment; pool splash troughs, leak detection systems for pool/spa, pool metering, drip/subsurface irrigation where appropriate, and/or proper hydro-zoning/zoned irrigation. Therefore, the project would leverage technology innovations and support implementation of sustainability policies and would not conflict with this policy.
Goal UD-3: Create and maintain safe and attractive travelways through coordinated streetscape design. **Policy UD-3.2:** Strengthen and activate the design of paths and adjacent development through enhanced and cohesive streetscapes, architectural themes, and landscaping. **Policy UD-3.3:** Promote a safe environment that facilitates social interaction and improves active transportation along corridors. **Policy UD-3.6:** Support open space improvements along roadways and nonvehicular paths, such as bike or multiuse trails, to create linear open space that connect to a network of parks and activity areas throughout the city.	**No Conflict.** The project would improve upon the existing project site by introducing distinct structures, open space, landscaped walkways, and access points throughout the site, which currently includes large portions of surface parking that surround centrally sited structures. The project's site plan would provide more internal circulation and pathways to and from residential, retail, and office spaces as well as landscaped open space and recreational amenities. As the existing site design is more restricted to use of vehicles, the proposed site design would facilitate more active transportation and pedestrian connections throughout the project site. Therefore, the project would not conflict with this goal or these policies.

Source: City of Santa Ana, 2022, General Plan, available at: https://www.santa-ana.org/documents/general-plan-april-2022/.

City of Santa Ana Applicable Zoning

As previously discussed, the project site is zoned SD-48, which currently contains Specific

Development (SD48), suburban apartment (R4), commercial residential (CR), general commercial (C2), planned development commercial (PDC), and multi-family residential, medium density (R2-MD) uses. The proposed project would require adoption of The Village Santa Ana Specific Plan (SP No. 6) by City Council that would replace SD-48 as the zoning for the project site and increase the allowable residential density of the project site to be consistent with the City's GPU. As described above, the Specific Plan would establish development guidelines and standards to regulate basic planning, design, and development concepts for future development on-site. As such, the proposed Specific Plan would create a regulatory framework that accounts for the special needs of the project site and provides flexibility to address potential future space changes. The primary development regulations set forth in the Specific Plan would address land use, design (including building heights, frontage areas, building setbacks, fencing, parking structure design, etc.), historic preservation, and parking requirements, as well as associated implementation procedures. As such, with the City's approval of the proposed Specific Plan to regulate future development at the site as well as other discretionary approvals, the proposed uses would be permitted. Therefore, the project would not conflict with the applicable provisions of the Santa Ana Municipal Code adopted for the purpose of avoiding or mitigating an environmental effect.

Based on the consistency analysis above, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR pertaining to any conflicts with adopted land use plans, policies, or regulations. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold LU-2 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold LU-2 were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

4.8.6 CUMULATIVE IMPACTS

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to the GPU PEIR, the extent of analysis of cumulative impacts for land use and planning is contiguous with the City and the sphere of influence boundary, which includes portions of the Santa Ana River Drainage Channel, but considers regional land use planning based on SCAG and OCTA. The GPU PEIR did not identify any significant cumulative impacts related to land use and planning.

Proposed Project Impact Analysis

Cumulative impacts for the GPU buildout and 32 related projects identified in Table 4-1: List of Related Projects, in Chapter 4, Environmental Analysis, would not be significant as the GPU buildout and each related project would be required to comply with their applicable land use

plan.[13] The nearest related project is the Related Bristol Specific Plan Project, which is located on a 42-acre site adjacent to and east of the project site. The Related Bristol Specific Plan Project proposes to demolish 16 existing commercial buildings and redevelop the site with up to 3,750 multi-family residential units, up to 350,000 square feet of commercial uses, a 250-room hotel, and a senior living/care use with up to 200 units. As discussed in its Draft Supplemental EIR dated July 2023, the Related Bristol Specific Plan Project would not physically divide an established community, would implement the GPU, and would not result in conflicts with an applicable land use plan, policy, or regulation of an agency with jurisdiction over its project.[14] The related projects would be required to comply with relevant land use policies and regulations through review by City regulatory agencies, and would be subject to CEQA review. Therefore, the potential cumulative impacts associated with land use and planning from GPU buildout and the related projects would be less than significant.

As discussed above in Section 4.8.5 Project Impacts, the proposed project would not physically divide an established community or conflict with applicable land use plans and zoning standards. Therefore, the proposed project's contribution to cumulative impacts to land use and planning would not be cumulatively considerable, and as such, cumulative impacts associated with land use and planning would be less than significant.

MITIGATION MEASURES

Cumulative impacts related to land use and planning would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Cumulative impacts related to land use and planning were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

[13] Twenty of the 32 related projects are located within the City of Santa Ana, and thus, are included as part of the GPU buildout.

[14] City of Santa Ana, 2023, Related Bristol Specific Plan Project Draft Supplemental EIR, available at: https://www.santa-ana.org/documents/draft-environmental-impact-report-eir-combined/.

4.9 NOISE

The purpose of this section is to evaluate potential noise related impacts to surrounding land uses as a result of implementation of the project. As the project pursues buildout of part of the City's GPU Land Use Plan, which was analyzed in the GPU PEIR, this section compares the project's impacts with the impacts identified in the GPU PEIR. This section evaluates short-term construction-related impacts, as well as long-term operational-related impacts. Noise measurements and traffic noise modeling data, prepared by Michael Baker International, Inc. (April 2025), which is included as Appendix G.

4.9.1 REGULATORY FRAMEWORK

FEDERAL

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (USEPA) offers guidelines for community noise exposure in the publication *Noise Effects Handbook – A Desk Reference to Health and Welfare Effects of Noise*. These guidelines consider occupational noise exposure as well as noise exposure in homes. The USEPA recognizes an exterior noise level of 55 decibels day-night level (dB L_{dn}) as a general goal to protect the public from hearing loss, activity interference, sleep disturbance, and annoyance. The USEPA and other Federal agencies have adopted suggested land use compatibility guidelines that indicate that residential noise exposures of 55 to 65 dB L_{dn} are acceptable. However, the USEPA notes that these levels are not regulatory goals, but are levels defined by a negotiated scientific consensus, without concern for economic and technological feasibility or the needs and desires of any particular community.

Federal Transit Administration

There are no vibration standards that are specifically applicable to the proposed project. The Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual* provides criteria for acceptable levels of groundborne vibration for various types of buildings, which are shown in Table 4.9-1: Structural Vibration Damage Criteria.

Table 4.9-1: Structural Vibration Damage Criteria

Building Category	Peak Particle Velocity for Continuous Sources (PPV) (inches/second [in/sec])
I. Reinforced concrete, steel, or timber (no plaster)	0.5
II. Engineering concrete and masonry (no plaster)	0.3
III. Nonengineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

Source: Federal Transit Administration, 2018, Transit Noise and Vibration Impact Assessment Manual, available at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf.

STATE

Office of Planning and Research General Plan Noise Element Guidelines

The State Office of Planning and Research (OPR) *Noise Element Guidelines* include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The *Noise Element Guidelines* contain a land use compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the community noise equivalent level (CNEL). Table 4.9-2: Land Use Compatibility for Community Noise Environments, presents guidelines for determining acceptable and unacceptable community noise exposure limits for various land use categories. The guidelines also present adjustment factors that may be used to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

Table 4.9-2: Land Use Compatibility for Community Noise Environments

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

Notes:

NA = not applicable; L_{dn} = day/night average; CNEL = community noise equivalent level; dBA = A-weighted decibels

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

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

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

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

Source: Office of Planning and Research, 2017, General Plan Guidelines, Appendix D: Noise Element Guidelines, available at: https://lci.ca.gov/docs/OPR_Appendix_D_final.pdf.

As depicted in Table 4.9-2: Land Use Compatibility for Community Noise Environments, the range of noise exposure levels overlap between the normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable categories. OPR's *State General Plan Guidelines* note that noise planning policy needs to be rather flexible and dynamic to reflect not only technological advances in noise control, but also economic constraints governing application of noise-control technology and anticipated regional growth and demands of the community. In project specific analyses, each community must decide the level of noise exposure its residents are willing to tolerate within a limited range of values below the known levels of health impairment. Therefore, the City may use their discretion to determine which noise levels are considered acceptable or unacceptable, based on land use, project location, and other project factors.

Assembly Bill 1307 and Public Resources Code Section 21085

On September 7, 2023, Assembly Bill 1307, CEQA: Noise Impact: Residential Projects, was filed with the Secretary of State to add Section 21085 to the Public Resources Code, which states "for residential projects, the effects of noise generated by project occupants and their guests on human beings is not a significant effect on the environment." This bill was effective immediately to address the current substantial housing crisis and to ensure housing projects are not subject to further uncertainty, delay, or risk of lawsuit.

California Public Utilities Code, Section 21676, Airport Land Use Commission and Airport Environs Land Use Plan for John Wayne Airport

As set forth in California Public Utilities Code Section 21670, the purposes of airport land use commissions (ALUCs) are to promote the overall goals and objectives of the California airport noise standards adopted pursuant to Public Utilities Code Section 21669 and to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses. John Wayne Airport (SNA) is within the oversight of the Orange County ALUC. As required, the ALUC has prepared the Airport Environs Land Use Plan (AELUP) for John Wayne Airport (SNA) (amended April 17, 2008). The AELUP intends "to safeguard the general welfare of the inhabitants within the vicinity of the airport and to ensure the continued operation of the airport. Specifically, the plan seeks to protect the public from the adverse effects of aircraft noise, to ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and to ensure that no structures or activities adversely affect navigable airspace."

Land uses within the AELUP planning area boundaries are required to conform to safety, noise, and height restrictions. Public Utilities Code Section 21675(c) requires that area surrounding any airport which affects, or is affected by, aircraft operations be embraced by the boundaries of its compatibility plan (i.e., AELUP). The planning area sets limits of the area within which proposed land use projects are to be referred to the ALUC for review. Planning area boundaries are determined by the location and configuration of the airport included in the plan and the extent of the noise and safety impacts associated with that airport, with certain exceptions. The overall planning area is the farthest extent of the 60 CNEL contour, the Federal Aviation Regulations Part 77 Notification Imaginary Surface area, or the runway safety zones associated with the airport.

AELUP Policy 3.2.1 is relevant to the proposed project: Within the boundaries of the AELUP, any land use may be found to be inconsistent with the AELUP which:

1. Places people so that they are affected adversely by aircraft noise,
2. Concentrates people in areas susceptible to aircraft accidents,

3. Permits structures of excessive height in areas which would affect adversely the continued operation of the airport, or
4. Permits activities or facilities that would affect adversely aeronautical operations.

LOCAL

The nearest sensitive receptors to the project site are located within the jurisdiction of the City of Santa Ana to the north. The applicable noise standards are discussed below, along with County of Orange standards related to John Wayne Airport (SNA).

County of Orange General Aviation Noise Ordinance

To reduce noise from operation of John Wayne Airport (SNA) the General Aviation Noise Ordinance was adopted by the County to regulate the hours of operation and the maximum permitted noise levels associated with general aviation operations. The General Aviation Noise Ordinance specifies noise limits at each noise monitoring station that vary by time of day. The Noise Ordinance also prohibits commercial aircraft departures between the hours of 10:00 p.m. and 7:00 a.m. and arrivals between the hours of 11:00 p.m. and 7:00 a.m.

City of Santa Ana General Plan Update

The City's GPU includes regulatory requirements (RR), goals, and policies related to noise. The following RRs and Noise Element goals and policies are applicable to the proposed project.

Regulatory Requirements

RR NOI-1: California Building Code: The California Building Code (CBC), Title 24, Part 2, Volume 1, Chapter 12, Interior Environment, Section 1207.11.2, Allowable Interior Noise Levels, requires that interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. The noise metric is evaluated as either the day-night average sound level (L_{dn}) or the community noise equivalent level (CNEL), consistent with the noise element of the local general plan.

The State of California's noise insulation standards for non-residential uses are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 11, California Green Building Standards Code (CALGreen). CALGreen noise standards are applied to new or renovation construction projects in California to control interior noise levels resulting from exterior noise sources. Proposed projects may use either the prescriptive method (Section 5.507.4.1) or the performance method (Section 5.507.4.2) to show compliance. Under the prescriptive method, a project must demonstrate transmission loss ratings for the wall and roof-ceiling assemblies and exterior windows when located within a noise environment of 65 dBA CNEL or higher. Under the performance method, a project must demonstrate that interior noise levels do not exceed 50 dBA L_{eq}(1hr).

RR NOI-2: Construction Noise Sources: Section 18-314(e) of the Santa Ana Municipal Code prohibits construction activities to the hours of 7:00 AM to 8:00 PM Monday through Saturday.

RR NOI-3: Stationary Noise Sources: Section 18.312 of the Santa Ana Municipal Code establishes standards for stationary noise sources (see Table 4.9-2: Land Use Compatibility for Community Noise Environments).

Noise Element

Goal N-1 Land Use Compatibility: Ensure that existing and future land uses are compatible with current and projected local and regional noise conditions.

- *Policy N-1.1 Noise Standards*: Utilize established Citywide Noise Standards and guidelines to inform land use decisions and guide noise management strategies.
- *Policy N-1.2 Sound Design*: Encourage functional and attractive designs to mitigate excessive noise levels.
- *Policy N-1.4 Sensitive Uses*: Protect noise sensitive land uses from excessive, unsafe, or otherwise disruptive noise levels.

Goal N-2 Noise Generators: Reduce the impact of known sources of noise and vibration.

- *Policy N-2.1 Transportation Related Noise*: Reduce noise generated from traffic, railroads, transit, and airports to the extent feasible.
- *Policy N-2.2 Stationary Related Noise*: Minimize noise impacts from commercial and industrial facilities adjacent to residential uses or zones where residential uses are permitted.
- *Policy N-2.3 Temporary and/or Nuisance Noise*: Minimize the effects of intermittent, short-term, or other nuisance noise sources.

Goal N-3 Airport and Land Use Environs: Protect sensitive land uses from airport related noise impacts.

- *Policy N-3.1 Residential Development*: Residential development within the John Wayne Airport (SNA) 65 dBA CNEL Noise Contour or greater is not supported.[1,2]
- *Policy N-3.2 Flight Paths*: Advocate that future flight path selection be directed away from existing noise sensitive land uses.
- *Policy N-3.3 Residential Mitigation*: Require all residential land uses in 60 dBA CNEL or 65 dBA CNEL Noise Contours to be sufficiently mitigated so as not to exceed an interior standard of 45 dBA CNEL.

The City of Santa Ana General Plan Noise Element also adopts the standards and guidelines for noise levels for the following sensitive land uses: residential, institutional, and open space.[3] For residential uses, the Noise Element includes interior and exterior noise standards for single-family, duplex, and multi-family land use categories. The interior noise standard is 45 dB CNEL and the exterior standard is 65 dB CNEL. Residential uses should be protected with sound insulation over and above what is provided by normal building construction when they are constructed in areas with noise levels higher than 60 dB CNEL.

[1] California Building Code Title 21 standards states that the basis for the acceptable level of aircraft noise for persons living in the vicinity of airports is 65 dBA CNEL.

[2] City of Santa Ana, 2020, City of Santa Ana General Plan, Figure N-3 Airport Noise Contours, available at: https://general-plan-santa-ana-ca.proudcity.com/documents/figure-n-3-airport-noise-contours/.

[3] City of Santa Ana, 2022, City of Santa Ana General Plan Noise Element, Table N-1, available at: https://general-plan-santa-ana-ca.proudcity.com/documents/noise-element/.

City of Santa Ana Municipal Code

Chapter 18, Article VI, Noise Control, of the Santa Ana Municipal Code (SAMC) provides criteria for ambient noise measurements as well as noise standards for residential, school, hospital, and church use. When non-transportation (stationary) noise is the noise source of concern, the City applies performance standards from Section 18.312 of the SAMC to ensure that noise producers do not adversely affect noise-sensitive land uses. Table 4.9-3: Santa Ana Exterior Noise Standards, summarizes the City's exterior noise standards for all residential properties with a designated noise zone.

Table 4.9-3: Santa Ana Exterior Noise Standards

Time Period	Noise Levels (dBA L_{eq})
7:00 a.m. – 10:00 p.m.	55
10:00 p.m. – 7:00 a.m.	50

Note: A 5 dBA L_{eq} penalty shall be applied in the event of an alleged offensive noise such as impact noise, simple tones, speech, music, or any combination of thereof.
Source: City of Santa Ana, City of Santa Ana Municipal Code, Chapter 18, Article VI, Noise Control, available at: https://library.municode.com/ca/santa_ana/codes/code_of_ordinances?nodeId=PTIITHCO_CH18HESA_ARTVINOCO.

The SAMC further states that "in the event the alleged offensive noise consists entirely of impact noise, simple tone noise, speech, music, or any combination thereof, each of the above noise levels shall be reduced by 5 dBA" with the following provisions:

(b) It shall be unlawful for any person at any location within the City of Santa Ana to create any noise, or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, when the foregoing causes the noise level, when measured on any other residential property, to exceed:

1. The noise standard for a cumulative period of more than thirty (30) minutes in any hour; or
2. The noise standard plus five (5) dBA for a cumulative period of more than fifteen (15) minutes in any hour; or
3. The noise standard plus ten (10) dBA for a cumulative period of more than five (5) minutes in any hour; or
4. The noise standard plus fifteen (15) dBA for a cumulative period of more than one minute in any hour; or
5. The noise standard plus twenty (20) dBA for any period of time.

(c) In the event the ambient noise level exceeds any of the first four (4) noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

Santa Ana Construction Noise Standards

The City of Santa Ana's noise ordinance exempts noise from construction activities that occur during the daytime. No construction is permitted outside of the hours in Section 18-314(e) of the SAMC, which restricts construction activities to the daytime hours of 7:00 a.m. to 8:00 p.m. Monday through Saturday. No construction activities shall occur on Sunday or a federal holiday.

4.9.2 ENVIRONMENTAL SETTING

NOISE SCALE AND DEFINITIONS

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

Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dBA higher than another is judged to be twice as loud, and 20 dBA higher four times as loud, and so forth. Everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud). Typical A-weighted noise levels for various noise sources are shown in Table 4.9-4: Typical A-Weighted Noise Levels.

Table 4.9-4: Typical A-Weighted Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1,000 feet	— 100 —	
Gas lawn mower at 3 feet	— 90 —	
Diesel truck at 50 feet at 50 miles per hour	— 80 —	Garbage disposal at 3 feet
Gas lawn mower at 100 feet	— 70 —	Vacuum cleaner at 10 feet
Heavy traffic at 300 feet	— 60 —	
Quiet urban daytime	— 50 —	Dishwasher in next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime	— 30 —	Library
Quiet rural nighttime	— 20 —	
	— 10 —	Broadcast/recording studio
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: California Department of Transportation, 2013, Technical Noise Supplement to the Traffic Noise Analysis Protocol, available at: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf.

Many methods have been developed for evaluating community noise to account for, among other things:

- The variation of noise levels over time;
- The influence of periodic individual loud events; and
- The community response to changes in the community noise environment.

Typical descriptors of noise are defined in Table 4.9-5: Noise Descriptors.

Table 4.9-5: Noise Descriptors

Term	Definition
Decibel (dB)	The unit for measuring the volume of sound equal to 10 times the logarithm (base 10) of the ratio of the pressure of a measured sound to a reference pressure (20 micropascals).
A-Weighted Decibel (dBA)	A sound measurement scale that adjusts the pressure of individual frequencies according to human sensitivities. The scale accounts for the fact that the region of highest sensitivity for the human ear is between 2,000 and 4,000 cycles per second (hertz).
Equivalent Sound Level (L_{eq})	The sound level containing the same total energy as a time varying signal over a given time period. The L_{eq} is the value that expresses the time averaged total energy of a fluctuating sound level.
Maximum Sound Level (L_{max})	The highest individual sound level (dBA) occurring over a given time period.
Minimum Sound Level (L_{min})	The lowest individual sound level (dBA) occurring over a given time period.
Community Noise Equivalent Level (CNEL)	A rating of community noise exposure to all sources of sound that differentiates between daytime, evening, and nighttime noise exposure. These adjustments are +5 dBA for the evening, 7:00 PM to 10:00 PM, and +10 dBA for the night, 10:00 PM to 7:00 AM.
Day/Night Average (L_{dn})	The L_{dn} is a measure of the 24-hour average noise level at a given location. It was adopted by the USEPA for developing criteria for the evaluation of community noise exposure. It is based on a measure of the average noise level over a given time period called the L_{eq}. The L_{dn} is calculated by averaging the L_{eq}'s for each hour of the day at a given location after penalizing the "sleeping hours" (defined as 10:00 PM to 7:00 AM) by 10 dBA to account for the increased sensitivity of people to noises that occur at night.
Exceedance Level (L_n)	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% (L_{01}, L_{10}, L_{50}, L_{90}, respectively) of the time during the measurement period.

Source: Cyril M. Harris, 1979, Handbook of Noise Control.

Health Effects Of Noise

Human response to sound is highly individualized. The effects of noise are often only transitory, but adverse effects can be cumulative with prolonged or repeated exposure. The effects of noise on the community can include noise-induced hearing loss, interference with communication, effects of noise on sleep, effects on performance and behavior, extra-auditory health effects, and annoyance. Annoyance is the most common issue regarding community noise. Field evaluations of community annoyance are useful for predicting the consequences of planned actions involving highways, airports, road traffic, railroads, or other noise sources. However, many factors influence people's response to noise. The factors can include the character of the noise, the variability of the sound level, the presence of tones or impulses, and the time of day of the occurrence. Additionally, non-acoustical factors, such as the person's opinion of the noise source, the ability to adapt to the noise, the attitude towards the source and those associated with it, and the predictability of the noise, all influence people's response. As such, response to noise varies widely from one person to another and with any particular noise, individual responses will range from "not annoyed" to "highly annoyed."

GROUND-BORNE VIBRATION

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

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV); another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. PPV is typically used for evaluating potential building damage, whereas PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration. Typically, ground-borne vibration, generated by man-made activities, attenuates rapidly with distance from the source of vibration. Man-made vibration issues are therefore usually confined to short distances (i.e., 500 feet or less) from the source. Both construction and operation of development projects can generate ground-borne vibration.

Table 4.9-6: Human Reaction and Damage to Building from Continuous Vibration Levels, displays the reactions of people and the effects on buildings produced by continuous vibration levels. The annoyance levels shown in Table 4.9-6: Human Reaction and Damage to Building from Continuous Vibration Levels should be interpreted with care since vibration may be found to be annoying at much lower levels than those listed, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

Table 4.9-6: Human Reaction and Damage to Buildings from Continuous Vibration Levels

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

Note: [a] Historic and some old buildings have a threshold of 0.25 PPV (in/sec).
Source: California Department of Transportation, April 2020, *Transportation and Construction Vibration Guidance Manual*, Tables 5 and 12, available at: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf.

EXISTING CONDITIONS

Sensitive Receptors

Human response to noise varies widely depending on the type of noise, time of day, and sensitivity of the receptor. Sensitive populations are more susceptible to the effects of noise than are the general population. Land uses considered sensitive by the State of California include schools, playgrounds, athletic facilities, hospitals, rest homes, rehabilitation centers, long-term care and mental care facilities. Generally, a sensitive receptor is identified as a location where human populations (especially children, senior citizens, and sick persons) are present. Land uses less sensitive to noise are business, commercial, and professional developments. Noise receptors categorized as being least sensitive to noise include industrial, manufacturing, utilities, agriculture, natural open space, undeveloped land, parking lots, warehousing, and transit terminals. These types of land use often generate high noise levels. Moderately sensitive land uses typically include multi-family dwellings, hotels, motels, dormitories, and outpatient clinics. The following land uses were identified as sensitive receptors in the project vicinity:

- Multi-family residences (communities of Versailles on the Lake and St. Albans located approximately 75 feet from the project site) adjacent to the north of the project site; and
- Multi-family residences (Village Creek condominium community) to the west across Bear Street in the City of Costa Mesa, approximately 100 feet from the project site boundary.

Airport Noise

The nearest airport is John Wayne Airport (SNA) located approximately 1.5 miles southeast of the project site. The project site is located within the AELUP for John Wayne Airport (SNA) and the Federal Aviation Regulations Part 77 Notification Area, but outside of the General Aviation Runway Safety Zones (refer to Figure 4.6-1 in Chapter 4.6, Hazards and Hazardous Materials).[4] The project site is also located outside of the 60 dBA CNEL noise contour for John Wayne (SNA) as shown in Figure 4.9-1, John Wayne Airport (SNA) Noise Contour.[5,6]

Ambient Noise Sources

In order to quantify existing ambient noise levels in the project area, Michael Baker International conducted noise measurements on December 7, 2022, between the hours of 10:30 a.m. and 11:30 a.m. (refer to Figure 4.9-2, Noise Measurement Locations). Table 4.9-7: Ambient Noise Measurements, shows the short-term (L_{eq}) noise measurements that are considered representative of the noise levels at the project site.

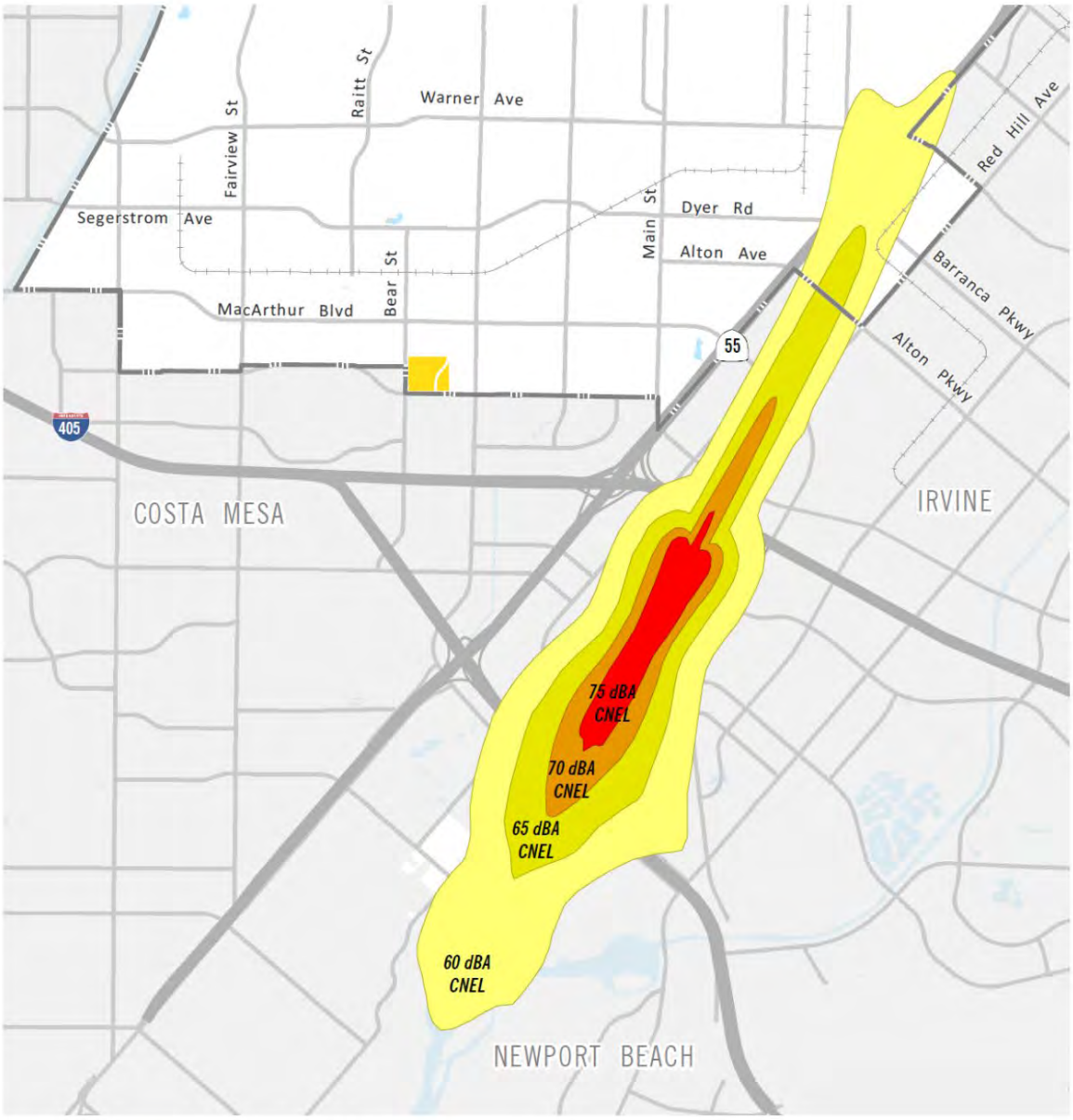
Table 4.9-7: Ambient Noise Measurements

Measurement Location Number	Location	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)
NM-1	On the sidewalk adjacent to 3411 Meadow Bridge residence.	59.4	44.2	79.4
NM-2	On the sidewalk of Wakeham Place, adjacent to 3770 Bear Street.	50.9	44.2	62.3
NM-3	Along the northern property line of the project site.	54.1	46.9	71.7

Notes: dBA = A-weighted decibels; L_{eq} = Equivalent Sound Level; L_{min} = Minimum Sound Level; L_{max} = Maximum Sound Level
Source: Michael Baker International, April 2025, Noise Measurements and Calculations (Appendix G).

Meteorological conditions were clear sky, warm temperatures, with light wind speeds (less than 3 miles per hour), and low humidity. Noise monitoring equipment used for the ambient noise survey consisted of a Brüel & Kjær Hand-held Analyzer Type 2250 equipped with a Type 4189 pre-polarized microphone. The monitoring equipment complies with applicable requirements of the American National Standards Institute for sound level meters. The results of the field measurements are included in the Noise Measurements and Calculations (Appendix G).

[4] Orange County Airport Land Use Commission, 2008, Airport Environs Land Use Plan for John Wayne Airport, available at: https://files.ocair.com/media/2021-02/JWA_AELUP-April-17-2008.pdf.
[5] City of Santa Ana, 2020, City of Santa Ana General Plan, Safety Element, Figure S-4, Airport Safety Zones, available at: https://general-plan-santa-ana-ca.proudcity.com/documents/figure-s-4-airport-safety-zones/.
[6] City of Santa Ana, 2020, City of Santa Ana General Plan, Noise Element, Figure N-3, Airport Noise Contours, available at: https://general-plan-santa-ana-ca.proudcity.com/documents/figure-n-3-airport-noise-contours/.



Source: City of Santa Ana Noise Element: Figure N-3, April 2022

Santa Ana Airport 2012 Annual Noise Contours

- 60 dBA CNEL
- 65 dBA CNEL
- 70 dBA CNEL
- 75 dBA CNEL

Project Site

Michael Baker INTERNATIONAL

NOT TO SCALE

THE VILLAGE SANTA ANA SPECIFIC PLAN PROJECT

John Wayne Airport (SNA) Noise Contour

Figure 4.9-1

Source: Google Earth Pro, June 2024

Michael Baker INTERNATIONAL

NOT TO SCALE

06/2024 - JN 192887

THE VILLAGE SANTA ANA SPECIFIC PLAN PROJECT

Noise Measurement Locations

Figure 4.9-2

Mobile Noise Sources

Most of the existing noise in the project area is generated from vehicle sources along Bear Street, South Plaza Drive, Sunflower Avenue, and Bristol Street. To assess the potential for mobile source noise impacts from these project area and nearby roadways, it is necessary to determine the noise currently generated by vehicles traveling through the project area. Existing roadway noise levels in the vicinity of the project site were projected utilizing noise models in accordance with the Federal Highway Administration's Highway (FHWA) Noise Prediction Model (FHWA RD-77-108) together with several roadway and site parameters. These parameters determine the projected impact of vehicular traffic noise and include the roadway cross-section (such as the number of lanes), roadway width, average daily trips (ADT), vehicle travel speed, percentages of auto and truck traffic, roadway grade, angle-of-view, and site conditions ("hard" or "soft"). The model does not account for ambient noise levels (i.e., noise from adjacent land uses) or topographical differences between the roadway and adjacent land uses. Noise projections are based on the ADT developed for the project; refer to Section 4.13, Transportation.

The mile per hour average vehicle speed was assumed for existing conditions based on the empirical observations and posted maximum speeds along the subject roadways. Existing modeled traffic noise levels are detailed in Table 4.9-8: Existing Traffic Noise Levels. As shown in Table 4.9-8: Existing Traffic Noise Levels, noise within the area from mobile source ranges from 53.4 dBA CNEL to 69.3 dBA CNEL at 100 feet from roadway centerline.

Table 4.9-8: Existing Traffic Noise Levels

Roadway Segment	Existing Conditions				
	ADT	dBA CNEL @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline: (Feet)		
			70 dBA CNEL Noise Contour	65 dBA CNEL Noise Contour	60 dBA CNEL Noise Contour
Fairview Street between:					
Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	57,258	69.3	90	194	418
MacArthur Boulevard and Sunflower Avenue (Santa Ana)	54,295	69.1	87	187	403
Sunflower Avenue and South Coast Drive (Costa Mesa)	48,327	68.9	84	181	389
South Coast Drive and I-405 NB Ramps (Costa Mesa)	58,522	68.0	74	159	343
I-405 NB Ramps and I-405 SB Ramps (Costa Mesa/Caltrans)	43,989	66.7	60	130	280
I-405 SB Ramps and Baker Street (Costa Mesa)	48,632	67.2	65	140	302
Bear Street between:					
Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	17,093	62.7	-	70	151

Table 4.9-8: Existing Traffic Noise Levels

Roadway Segment	Existing Conditions				
	ADT	dBA CNEL @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline: (Feet)		
			70 dBA CNEL Noise Contour	65 dBA CNEL Noise Contour	60 dBA CNEL Noise Contour
MacArthur Boulevard and Sunflower Avenue (Santa Ana/Costa Mesa)	18,079	63.2	-	76	164
Sunflower Avenue and S. Coast Drive (Costa Mesa)	29,280	65.2	-	103	222
South Coast Drive and Paularino Avenue (Costa Mesa)	30,550	65.3	-	105	226
Paularino Avenue and Baker Street (Costa Mesa)	38,458	66.3	57	123	264
South Plaza Drive between:					
MacArthur Boulevard and Callen's Common (Santa Ana)	5,335	53.8	-	-	-
Callen's Common and Sunflower Avenue (Santa Ana)	4,867	53.4	-	-	-
Bristol Street between:					
Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	44,514	67.1	64	138	297
MacArthur Boulevard and Callen's Common (Santa Ana)	46,376	67.3	66	141	305
Callen's Common and Sunflower Avenue (Santa Ana)	44,992	67.2	65	140	303
Sunflower Avenue and Anton Boulevard (Costa Mesa)	49,520	67.4	68	146	314
Anton Boulevard and I-405 North Bound Ramps (Costa Mesa)	56,842	69.3	89	192	414
I-405 NB Ramps and I-405 SB Ramps (Costa Mesa/Caltrans)	58,550	68.6	80	173	373
I-405 SB Ramps and Paularino Avenue (Costa Mesa)	39,465	66.5	58	125	269
Paularino Avenue and Baker Street (Costa Mesa)	40,865	66.6	59	128	275
Flower Street between:					
Dyer Road and MacArthur Boulevard (Santa Ana)	15,226	62.2	-	65	140

Table 4.9-8: Existing Traffic Noise Levels

Roadway Segment	Existing Conditions				
	ADT	dBA CNEL @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline: (Feet)		
			70 dBA CNEL Noise Contour	65 dBA CNEL Noise Contour	60 dBA CNEL Noise Contour
MacArthur Boulevard and Sunflower Avenue (Santa Ana)	9,385	60.1	-	-	101
Main Street between:					
Dyer Road and MacArthur Boulevard (Santa Ana)	30,841	66.7	-	130	279
MacArthur Boulevard and Sunflower Avenue (Santa Ana)	24,049	65.6	-	110	237
Sunflower Avenue and Red Hill Avenue (Santa Ana/Irvine)	23,756	65.6	-	109	235
Segerstrom Avenue between:					
Fairview Street and Bear Street (Santa Ana)	21,359	63.7	-	82	176
Bear Street and Bristol Street (Santa Ana)	28,687	65.0	-	99	214
Bristol Street and Flower Street (Santa Ana)	23,305	64.1	-	86	186
Dyer Road between:					
Flower Street and Main Street (Santa Ana)	29,321	65.0	-	101	217
MacArthur Boulevard between:					
Fairview Street and Bear Street (Santa Ana)	31,231	65.6	-	110	236
Bear Street and South Plaza Drive (Santa Ana)	38,149	66.5	-	125	270
South Plaza Drive and Bristol Street (Santa Ana)	34,795	66.1	-	118	254
Bristol Street and Flower Street (Santa Ana)	38,024	66.5	-	125	269
Flower Street and Main Street (Santa Ana)	38,517	66.5	-	126	272
Main Street and SR-55 SB Ramps (Santa Ana)	49,168	67.6	69	149	322
SR-55 SB Ramps and SR-NB Ramps (Santa Ana/Irvine)	50,728	68.1	-	162	348

Table 4.9-8: Existing Traffic Noise Levels

Roadway Segment	Existing Conditions				
	ADT	dBA CNEL @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline: (Feet)		
			70 dBA CNEL Noise Contour	65 dBA CNEL Noise Contour	60 dBA CNEL Noise Contour
Sunflower Avenue between:					
Fairview Street and Bear Street (Santa Ana/Costa Mesa)	16,151	62.4	-	67	145
Bear Street and South Plaza Drive (Santa Ana/Costa Mesa)	28,671	64.9	-	99	213
South Plaza Drive and Bristol Street (Santa Ana/Costa Mesa)	27,753	64.8	-	97	208
Bristol Street and Flower Street (Santa Ana/Costa Mesa)	21,679	63.7	-	82	177
Bristol Street and Flower Street (Santa Ana/Costa Mesa)	17,867	62.9	-	72	155
Bristol Street					
South of Baker Street (Santa Ana)	27,895	65.1	-	101	217

Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level; - = contour located within the roadway right of way; NB = northbound; SB = southbound.
Source: Michael Baker International, April 2025, Noise Measurements and Calculations (Appendix G).

Stationary Noise Sources

The project area consists of residential and commercial uses. The primary sources of stationary noise in the project vicinity are urban-related activities (i.e., mechanical equipment and parking areas). The noise associated with these sources may represent a single-event noise occurrence, short-term, or long-term/continuous noise.

Existing Vibration

The GPU PEIR states that commercial and industrial operations in the City can generate varying degrees of ground vibration, depending on the operational procedures and equipment. Such equipment-generated vibrations spread through the ground and diminish with distance from the source. The result from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels. Additionally, future sensitive receptors could be placed within close proximity to existing railroad lines through buildout of the plan area. The proposed project site is not located in close proximity to industrial or railroad uses. However, the project site is developed within existing commercial uses and is adjacent to other commercial uses to the east and south, and residential uses to the north and west. As mentioned, the project site is bordered to the south by Sunflower Avenue, which is a designated major arterial roadway with six lanes, to the east by Bear Street, which operates as a secondary arterial roadway with four lanes, and is transected

by Plaza Drive, which is a four-lane local roadway. Vehicles traveling on smooth roadways are not considered substantial sources of perceptible ground vibration.[7]

4.9.3 THRESHOLDS OF SIGNIFICANCE

The significance thresholds used to evaluate the impacts of the proposed project related to noise are based on Appendix G of the State CEQA Guidelines. A project would have a significant impact related to noise if it would:

N-1: ***Generate 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.***

N-2: ***Generate excessive groundborne vibration or groundborne noise levels.***

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

CONSTRUCTION NOISE IMPACTS THRESHOLD

As discussed in the GPU PEIR, the City of Santa Ana's noise ordinance exempts noise from construction activities that occur during the daytime. However, as the project's construction activities would last for approximately 20 years and could potentially cause impacts to nearby sensitive receptors, for the purpose of this analysis, FTA's construction noise criterion of 80 dBA L_{eq} has been used to analyze impacts to the nearest sensitive receptors.[8] FTA's nighttime construction noise thresholds (potentially needed for project concrete pours only) are 70 dBA (8-hour L_{eq}) for residential uses and 85 dBA (8-hour L_{eq}) for commercial non-residential uses.

OPERATIONAL NOISE IMPACTS THRESHOLD

Mobile Noise Sources

An off-site traffic noise impact typically occurs when there is a discernable increase in traffic and the resulting noise level exceeds an established noise standard. Roadway segments modeled that would generate noise levels below 60 dBA CNEL are considered normally acceptable noise standard for Residential – Low Density, Single-Family, Duplex, Mobile Homes (refer to Table 4.9-2: Land Use Compatibility for Community Noise Environments). For traffic noise levels that exceed 60 dBA CNEL, changes in noise levels greater than 3 dBA CNEL are also often identified as discernible, while changes less than 1 dBA CNEL would not be discernible to local residents. A 5 dBA CNEL change is generally recognized as a clearly discernable difference.

Thus, the project would result in a significant noise impact if a permanent increase in ambient traffic noise levels of 3.0 dBA CNEL occurs upon project implementation and the resulting noise level at the receiving sensitive receptor exceeds the applicable exterior standard at a noise sensitive use.

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[7] California Department of Transportation 2020, Transportation and Construction Vibration Guidance Manual, available at: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf.

[8] Federal Transit Administration, 2018, Transit Noise and Vibration Impact Assessment Manual. Available at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf.

A cumulative traffic noise increase would be considered significant when the combined effect exceeds the perception level (i.e., auditory level increase) threshold. The combined effect compares the "cumulative with project" condition to the "existing" condition. This comparison accounts for the traffic noise increase from the project generated in combination with traffic generated by cumulative growth. The following criteria has been utilized to evaluate the combined effect of the cumulative noise increase.

- *Combined Effects:* The cumulative with project noise level ("Existing With Project") would cause a significant cumulative impact if a 3 dBA CNEL increase over existing conditions occurs and the resulting noise level exceeds the applicable exterior standard at a sensitive use.

Although there may be a cumulatively significant noise increase due to the proposed project in combination with cumulative growth (combined effects), it must also be demonstrated that the project has a cumulatively considerable incremental effect. In other words, a significant portion of the noise increase must be due to the proposed project. The following criteria has been utilized to evaluate the incremental effect of the cumulative noise increase.

- *Incremental Effects:* The "Existing With Project" causes a 1 dBA CNEL increase in noise over the "Future Without Project" noise level.

The project would result in a significant impact only if both the combined and incremental effects criteria have been exceeded and the resulting noise level exceeds the applicable exterior standard at a noise sensitive use.

Stationary Noise Sources

The noise levels generated by stationary noise sources would be compared to the City's applicable exterior noise standards listed previously in Table 4.9-3: Santa Ana Exterior Noise Standards, which is 55 dBA L_{eq} during daytime (7 a.m. to 10 p.m.) and 50 dBA L_{eq} during nighttime (10 p.m. to 7 a.m.). Further, the project would also result in a significant noise impact if a permanent increase in ambient noise levels of 3.0 dBA L_{eq} occurs upon project implementation.

GROUNDBORNE VIBRATION

Construction vibration damage impacts include human annoyance and building damage. The California Department of Transportation's *Transportation and Construction Vibration Guidance Manual* describes the reactions of people to continuous vibration levels, as shown in Table 4.9-6: Human Reaction and Damage to Buildings from Continuous Vibration Levels. Though vibration may be found to be annoying at much lower levels than those listed in Table 4.9-6, this analysis assumes that the vibration level at which human annoyance is perceived is 0.2 inch-per-second PPV. The FTA *Transit Noise and Vibration Impact Assessment Manual* identifies various vibration damage criteria for different building classes, as shown in Table 4.9-1: Structural Vibration Damage Criteria. As the nearest sensitive receptor structures to the project site are residential uses, the architectural damage criterion for continuous vibrations at residential structures of 0.2 inch-per-second PPV is applied in the analysis.

4.9.4 METHODOLOGY

EVALUATING CONSTRUCTION NOISE IMPACTS

Noise levels from construction equipment and activities were modeled using the FHWA's Roadway Construction Noise Model (RCNM). To present a conservative impact analysis, the estimated noise levels were calculated for a scenario in which all heavy construction equipment

were assumed to operate simultaneously. Results from RCNM also assumes a clear line-of-sight and no other machinery or equipment noise that would mask project construction noise. The construction equipment list is based on the California Estimator Model (CalEEMod), Version 2022.1, as shown in the Air Quality, Greenhouse Gas Emissions, Construction Health Risk Assessment, and Energy Modeling Outputs (Air Quality and GHG Modeling Outputs), included as Appendix B.

EVALUATING CONSTRUCTION VIBRATION IMPACTS

Groundborne vibration levels associated with construction-related activities for the project were evaluated utilizing typical groundborne vibration levels associated with construction equipment, obtained from FTA published data for construction equipment. Potential groundborne vibration impacts related to building/structure damage and interference with sensitive existing operations were evaluated, considering the distance from construction activities to nearby land uses and typically applied criteria.

EVALUATING OPERATIONAL NOISE IMPACTS

Mobile Noise Sources

The primary source of noise associated with the operation of the proposed project would be from vehicular trips. As previously stated, traffic noise levels in the vicinity of the project site were projected utilizing noise models in accordance with the FHWA RD-77-108 together with several roadway and site parameters. As detailed in Section 4.13, Transportation, the proposed project is anticipated to generate a net increase of approximately 3,018 daily trips. The increase in noise levels generated by the vehicular trips have been quantitatively estimated and compared to the applicable noise standards and thresholds of significance detailed in Section 4.9.3, Thresholds of Significance.

Stationary Noise Sources

Secondary sources of noise would include stationary sources associated with the new buildings on the project site, including mechanical equipment such as heating, ventilation, and air conditioning units; onsite vehicle movement, such as customer trips, delivery trucks, street sweepers; and outdoor gathering areas. Noise levels from stationary sources were calculated based on reference noise levels and the distance between the sources and the closest sensitive receptors.

4.9.5 PROJECT IMPACTS

N-1: Would the project generate 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? *[GPU PEIR Impacts 5.12-1 and 5.12-2]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

The GPU PEIR Impact 5.12-1 concluded that implementation of the GPU has the potential to result in significant temporary and permanent increases of noise levels throughout the City from construction activities and land use development projects. Future development under the GPU would generate both short-term and long-term noise level increases that may impact sensitive receptors. However, because specific project-level information is inherently not available, it would

be speculative to quantify the noise impacts at specific sensitive receptors. The GPU included regulations designed to protect new sensitive land uses from excessive noise levels. The GPU PEIR stated that GPU PEIR Mitigation Measure (MM) N-1, which prescribes measures for construction activities, would reduce potential noise impacts during construction to the extent feasible. The GPU PEIR concluded that construction activities associated with any individual development may occur near noise-sensitive receptors and because, depending on the project type, equipment list, time of day, phasing, and overall construction durations, noise disturbances may occur for prolonged periods of time or during the more sensitive nighttime hours, construction noise impacts associated with implementation of the project are considered significant and unavoidable. However, the GPU PEIR noted that the identification of this program-level impact does not preclude the finding of less-than-significant impacts for subsequent projects analyzed at the project level.

The GPU PEIR Impact 5.12-2 identified that buildout of the GPU would result in an increase in traffic along local roadways proximate to existing sensitive receptors and could exceed noise standards on several roadway segments. The GPU PEIR identified Noise Element policies (1.2, 1.3, 1.4, and 2.1) and Mobility Element policies (M-1.7, M-1.8, and M-4.8) to help minimize traffic noise impacts and reduce potential interior noise impacts to future noise sensitive receptors below the thresholds. Nonetheless, the GPU PEIR conservatively identified that traffic noise increase on the roadway segments would remain significant. However, the GPU PEIR also noted that the identification of this program-level impact does not preclude the finding of less-than-significant impacts for subsequent projects analyzed at the project level.

Proposed Project Impact Summary

Construction

The project would be constructed over five phases and there would be no overlaps between each construction phase. Table 4.9-9: Construction Assumptions summarizes the proposed construction schedule, the total construction area of each phase, and the estimated soil export volume of each phase.

Table 4.9-9: Construction Assumptions

Phase	Construction Activity	Duration	Total Construction Area	Soil Export Volume[a]
1	Demolition	3 months	6.15 acres	148,130 cubic yards
	Grading	10 months		
	Paving	1 month		
	Building Construction	33 months		
	Architectural Coating	3 months		
2	Grading	5 months	4.85 acres	78,400 cubic yards
	Building Construction	27 months		
	Architectural Coating	4 months		
3	Grading	3 months	1.45 acres	24,140 cubic yards
	Building Construction	32 months		
	Architectural Coating	3 months		
4	Grading	6 months	3.25 acres	109,920 cubic yards
	Paving	1 month		
	Building Construction	40 months		
	Architectural Coating	6 months		

Table 4.9-9: Construction Assumptions

Phase	Construction Activity	Duration	Total Construction Area	Soil Export Volume[a]
5	Grading	6 months	1.5 acres	72,800 cubic yards
	Paving	1 month		
	Building Construction	41 months		
	Architectural Coating	3 months		

Notes:
[a] Soil export volumes are the net of total cut and fill, which account for the soil to be reused on-site
Information about construction activities, phasing, and durations were provided by the Project Applicant.

Ground-borne noise and other types of construction-related noise impacts would typically occur during the initial grading phase and have the potential to create the highest levels of noise. Construction equipment produce maximum noise levels when equipment is operating under full power conditions (i.e., the equipment engine at maximum speed). However, equipment used on construction sites typically operates under less than full power conditions, or partial power. To more accurately characterize construction-period noise levels, the average (L_{eq}) noise level associated with each construction stage is calculated based on the quantity, type, and usage factors for each type of equipment that would be used during each construction phase. These noise levels are typically associated with multiple pieces of equipment simultaneously operating on partial power. Construction generally occurs in several discrete phases, with each phase requiring different equipment with varying noise characteristics. These phases would alter the characteristics of the noise environment generated on the proposed project site and in the surrounding community for the duration of the construction process.

Offsite construction which may include roadway improvements, installation of sidewalks, bicycle facilities, landscaping, median reconstruction, striping, and installation or upgrade of utilities and infrastructure would also occur linearly within the rights-of-way adjacent to the project site. Construction equipment used for these activities would be similar to equipment used on-site; however, the activities would not operate in a fixed location for extended durations. Construction activities and associated noise levels would fluctuate and generally be brief and sporadic, depending on the type, intensity, and location of construction activities. Additionally, construction noise would also be acoustically dispersed and would be masked by surrounding roadway noise.

The estimated construction noise levels at the nearest noise-sensitive receptors are presented in Table 4.9-10: Noise Levels Generated During Construction Phases. Noise levels from construction equipment and activities were modeled using the FHWA's RCNM. As stated above, the estimated noise levels were calculated assuming a clear line-of-sight; however, the shielding of buildings and other barriers that interrupt line-of-sight conditions would help further reduce noise levels beyond what is shown in Table 4.9-10: Noise Levels Generated During Construction Phases. According to the General Noise Assessment methodology prescribed in the FTA *Transit Noise and Vibration Impact Assessment Manual*, noise can be considered as concentrated at the center of the site; thus, estimated noise levels were calculated from the center of the project site. The nearest sensitive receptors to the project site are the existing multi-family uses in the communities of Versailles on the Lake and St. Albans within the City of Santa Ana, located approximately 75 feet to the north of Phase 2 and Phase 3 construction activities, and the existing multi-family uses in the Village Creek condominium community within the City of Costa Mesa, located approximately 100 feet to the west of the Phase 1 construction activities. Phase 4 and Phase 5 construction activities are expected to occur further away from the nearest sensitive receptors. Table 4.9-10: Noise Levels Generated During Construction Phases provides the

anticipated noise levels at the nearest sensitive receptors to the north and west during all construction phases from the geographic center of each construction phase.

As discussed in the GPU PEIR, the City of Santa Ana's noise ordinance exempts noise from construction activities that occur during the daytime. However, for the purpose of this analysis, FTA's construction noise criterion of 80 dBA L_{eq} has been used to analyze impacts to the nearest sensitive receptors.

Table 4.9-10: Noise Levels Generated During Construction Phases

Phase	Estimated Exterior Construction Noise Level at Northern Receptors (Center of Project Site) (dBA L_{eq})[f]	Estimated Exterior Construction Noise Level at Western Receptors (Center of Project Site) (dBA L_{eq})[f]
Phase 1[a]	64.0	69.2
Phase 2[b]	73.5	70.2
Phase 3[c]	72.1	61.3
Phase 4[d]	65.7	61.8
Phase 5[e]	66.8	65.9

Notes:
[a] The geographic center of Phase 1 construction activities are approximately 730 feet and 400 feet from the northern and western sensitive receptors.
[b] The geographic center of Phase 2 construction activities are approximately 244 feet and 355 feet from the northern and western sensitive receptors.
[c] The geographic center of Phase 3 construction activities are approximately 244 feet and 850 feet from the northern and western sensitive receptors.
[d] The geographic center of Phase 4 construction activities are approximately 600 feet and 940 feet from the northern and western sensitive receptors.
[e] The geographic center of Phase 5 construction activities are approximately 450 feet and 500 feet from the northern and western sensitive receptors.
[f] Construction equipment lists are based on CalEEMod and are shown in Air Quality and GHG Modeling Outputs (Appendix B). Maximum noise levels for demolition, grading, building construction, paving, and architectural coating during each construction phase is presented.
Source: Federal Highway Administration, 2006, Roadway Construction Noise Model (RCNM), available at: https://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/rcnm.pdf; Michael Baker International, April 2025, Noise Measurements and Calculations (Appendix G).

As shown in Table 4.9-10: Noise Levels Generated During Construction Phases, construction noise at the northern receptors would range from 64.0 dBA L_{eq} to 73.5 dBA L_{eq} and construction noise at western receptors would range from 61.3 dBA L_{eq} to 70.2 dBA L_{eq}. As such, construction noise would not have the potential to exceed the FTA's construction noise criterion of 80 dBA L_{eq}. Furthermore, project construction activities would comply with the construction hours specified in Section 18-314(e) of the SAMC, which restricts construction activities to the daytime hours of 7:00 a.m. to 8:00 p.m., Monday through Saturday. Compliance with the SAMC would minimize impacts from construction noise, as construction would be limited to the permitted times.

The only exception would be for nighttime concrete pours, should continuous pours be necessary for geotechnical considerations. If such concrete pours are necessary, they would occur a maximum of 2 nights per phase. Nighttime concrete pours would use the following construction equipment according to the project applicant: pumps, compactor, forklift, loader, tractors, and trenchers. Table 4.9-11: Noise Levels Generated During Nighttime Concrete Pours provides the anticipated noise levels at the nearest sensitive receptors to the north and west during concrete

pours from the geographic center of each construction phase. As shown in Table 4.9-11: Noise Levels Generated During Nighttime Concrete Pours, construction noise at the northern receptors would range from 63.8 dBA L_{eq} to 73.3 dBA L_{eq} and construction noise at western receptors would range from 61.6 dBA L_{eq} to 70.1 dBA L_{eq}. Thus, noise from nighttime construction activity would exceed the FTA's nighttime construction noise criterion of 70 dBA L_{eq} at off-site residential uses. As such, project-specific MM NOI-1 is included to require establishment of a nighttime construction control plan and implementation of construction techniques, including installation of temporary noise barriers or enclosures during Phases 2 and 3 to protect sensitive receptors to the north and west, use of mufflers on construction equipment, and placement of construction equipment away from sensitive receptors. Implementation of MM NOI-1 would reduce noise levels during nighttime concrete pours by at least 10 dBA, and noise levels at the nearest sensitive receptors would be reduced to up to 63.3 dBA L_{eq}, which would not exceed the FTA's nighttime construction noise criterion of 70 dBA L_{eq}.

Table 4.9-11: Noise Levels Generated During Nighttime Concrete Pours

Phase	Estimated Exterior Construction Noise Level at Northern Receptors (Center of Construction Phase) (dBA L_{eq})[f]	Estimated Exterior Construction Noise Level at Western Receptors (Center of Construction Phase) (dBA L_{eq})[f]
Phase 1[a]	63.8	69.1
Phase 2[b]	73.3	70.1
Phase 3[c]	73.3	62.5
Phase 4[d]	65.5	61.6
Phase 5[e]	68.0	67.1

Notes:
[a] The geographic center of Phase 1 construction activities are approximately 730 feet and 400 feet from the northern and western sensitive receptors.
[b] The geographic center of Phase 2 construction activities are approximately 244 feet and 355 feet from the northern and western sensitive receptors.
[c] The geographic center of Phase 3 construction activities are approximately 244 feet and 850 feet from the northern and western sensitive receptors.
[d] The geographic center of Phase 4 construction activities are approximately 600 feet and 940 feet from the northern and western sensitive receptors.
[e] The geographic center of Phase 5 construction activities are approximately 450 feet and 500 feet from the northern and western sensitive receptors.
[f] Construction equipment lists are provided by the project applicant, including pumps, compactor, forklift, loader, tractors, and trenchers.
Source: Federal Highway Administration, 2006, Roadway Construction Noise Model (RCNM); Michael Baker International, April 2025, Noise Measurements and Calculations (Appendix G).

Therefore, in conclusion, impacts resulting from the proposed project would be less than significant after mitigation and would be less than the impacts disclosed in the GPU PEIR, which were determined to be significant and unavoidable despite inclusion of mitigation.

Long-Term Operational Noise

Mobile Sources

Future noise levels have been calculated for various roadway segments within the project vicinity. It is noted that the computer noise model used to estimate the potential ambient noise levels does not consider the existing noise attenuating features, such as sound walls, buildings, landscaping, or topography. As such, the roadway noise contours may not reflect true noise conditions and may be conservative in such aspects. Intervening structures or other noise-attenuating obstacles between the roadway and sensitive receptors may reduce roadway noise levels at the receiving receptor. However, there would almost certainly be receptors that would experience roadway noise levels very similar to those indicated by the noise contours. As shown in Table 4.9-12: Project Traffic Noise Levels, Project Traffic Noise Levels, under the "Existing" scenario, noise levels at 100 feet from the roadway centerline would range from 53.4 dBA CNEL to 69.3 dBA CNEL and under the "Existing With Project" scenario, noise levels at 100 feet from the roadway centerline would range from 53.9 dBA CNEL to 69.4 dBA CNEL.

Table 4.9-12: Project Traffic Noise Levels also compares the increase of noise levels between the "Existing" scenario to the "Existing With Project" scenario. The increase in ambient noise between the two scenarios would be up to 0.5 dBA CNEL. As shown in Table 4.9-12: Project Traffic Noise Levels, roadway segments modeled would generate noise levels above the 60 dBA CNEL normally acceptable noise standard for Residential – Low Density, Single-Family, Duplex, Mobile Homes (refer to Table 4.9-2: Land Use Compatibility for Community Noise Environments)[9] with the exception of South Plaza Drive. However, the increase in ambient noise (0.5 dBA CNEL) would not exceed the 3 dBA CNEL threshold along these roadway segments. Therefore, a less than significant impact would occur.

Stationary Sources

Commercial land uses would be located near sensitive receptor areas. Such uses generate occasional stationary source noises. Primary stationary noise sources associated with these facilities are due to customer trips, delivery trucks, machinery, air compressors, generators, outdoor gatherings and loudspeaker uses, and gas vents. Other significant stationary noise sources within the City include maintenance activities, street sweepers, and gas-powered leaf blowers. The closest sensitive receptors are within the jurisdiction of the City of Santa Ana and are located approximately at 75 feet from the proposed residential uses located along the northern portion of the project site. The closest sensitive receptors that are located within the jurisdiction of the City of Costa Mesa are approximately at 100 feet from the proposed residential uses located along the western portion of the project site. It should be noted that the distances to the nearest sensitive receptors would be greater when measured from the stationary sources on-site. However, as a conservative analysis, stationary noise impacts are analyzed from project's property line to the nearest sensitive receptors to the north and west.

[9] Office of Planning and Research, 2017, General Plan Guidelines, available at: https://lci.ca.gov/docs/OPR_COMPLETE_7.31.17.pdf.

Table 4.9-12: Project Traffic Noise Levels

Roadway Segment	Existing[a]	Existing with Project					Difference in dBA CNEL @ 100 Feet from Roadway
	dBA CNEL @ 100 Feet from Roadway Centerline	ADT	dBA CNEL @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline (Feet)			
				70 dBA CNEL Noise Contour	65 dBA CNEL Noise Contour	60 dBA CNEL Noise Contour	
Fairview Street between:							
Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	69.3	57,283	69.3	90	194	418	0.0
MacArthur Boulevard and Sunflower Avenue (Santa Ana)	69.1	54,320	69.1	87	187	403	0.0
Sunflower Avenue and South Coast Drive (Costa Mesa)	68.9	48,356	68.9	84	181	389	0.1
South Coast Drive and I-405 NB Ramps (Costa Mesa)	68.0	58,562	68.0	74	159	343	0.0
I-405 NB Ramps and I-405 SB Ramps (Costa Mesa/Caltrans)	66.7	44,029	66.7	60	130	280	0.0
I-405 SB Ramps and Baker Street (Costa Mesa)	67.2	48,672	67.2	65	140	302	0.0
Bear Street between:							
Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	62.7	17,280	62.7	-	71	152	0.0
MacArthur Boulevard and Sunflower Avenue (Santa Ana/Costa Mesa)	63.2	18,628	63.4	-	78	167	0.2
Sunflower Avenue and South Coast Drive (Costa Mesa)	65.2	29,602	65.2	-	104	223	0.0
South Coast Drive and Paularino Avenue (Costa Mesa)	65.3	30,864	65.3	-	106	227	0.0
Paularino Avenue and Baker Street (Costa Mesa)	66.3	38,620	66.3	57	123	265	0.0
South Plaza Drive between:							

Table 4.9-12: Project Traffic Noise Levels

Roadway Segment	Existing[a]	Existing with Project					Difference in dBA CNEL @ 100 Feet from Roadway
	dBA CNEL @ 100 Feet from Roadway Centerline	ADT	dBA CNEL @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline (Feet)			
				70 dBA CNEL Noise Contour	65 dBA CNEL Noise Contour	60 dBA CNEL Noise Contour	
MacArthur Boulevard and Callen's Common (Santa Ana)	53.8	5,798	54.1	-	-	-	0.3
Callen's Common and Sunflower Avenue (Santa Ana)	53.4	5,532	53.9	-	-	-	0.5
Bristol Street between:							
Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	67.1	44,784	67.1	64	138	298	0.0
MacArthur Boulevard and Callen's Common (Santa Ana)	67.3	46,675	67.3	66	142	306	0.0
Callen's Common and Sunflower Avenue (Santa Ana)	67.2	45,291	67.2	65	141	304	0.0
Sunflower Avenue and Anton Boulevard (Costa Mesa)	67.4	50,773	67.6	69	148	319	0.2
Anton Boulevard and I-405 NB Ramps (Costa Mesa)	69.3	58,095	69.4	91	195	420	0.1
I-405 NB Ramps and I-405 SB Ramps (Costa Mesa/Caltrans)	68.6	59,529	68.6	81	175	377	0.0
I-405 SB Ramps and Paularino Avenue (Costa Mesa)	66.5	39,615	66.5	58	125	270	0.0
Paularino Avenue and Baker Street (Costa Mesa)	66.6	41,015	66.6	59	128	276	0.0
Flower Street between:							
Dyer Road and MacArthur Boulevard (Santa Ana)	62.2	15,276	62.2	-	65	140	0.0
MacArthur Boulevard and Sunflower Avenue (Santa Ana)	60.1	9,410	60.1	-	-	101	0.0
Main Street between:							

Table 4.9-12: Project Traffic Noise Levels

Roadway Segment	Existing[a]	Existing with Project					Difference in dBA CNEL @ 100 Feet from Roadway
	dBA CNEL @ 100 Feet from Roadway Centerline	ADT	dBA CNEL @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline (Feet)			
				70 dBA CNEL Noise Contour	65 dBA CNEL Noise Contour	60 dBA CNEL Noise Contour	
Dyer Road and MacArthur Boulevard (Santa Ana)	66.7	30,866	66.7	-	130	279	0.0
MacArthur Boulevard and Sunflower Avenue (Santa Ana)	65.6	24,074	65.6	-	110	237	0.0
Sunflower Avenue and Red Hill Avenue (Santa Ana/Irvine)	65.6	23,906	65.6	-	109	236	0.0
Segerstrom Avenue between:							
Fairview Street and Bear Street (Santa Ana)	63.7	21,462	63.7	-	82	176	0.0
Bear Street and Bristol Street (Santa Ana)	65.0	28,770	65.0	-	99	214	0.0
Bristol Street and Flower Street (Santa Ana)	64.1	23,355	64.1	-	87	187	0.0
Dyer Road between:							
Flower Street and Main Street (Santa Ana)	65.0	29,371	65.1	-	101	217	0.1
MacArthur Boulevard between:							
Fairview Street and Bear Street (Santa Ana)	65.6	31,283	65.6	-	110	236	0.0
Bear Street and South Plaza Drive (Santa Ana)	66.5	38,174	66.5	-	125	270	0.0
South Plaza Drive and Bristol Street (Santa Ana)	66.1	35,519	66.2	-	119	257	0.1
Bristol Street and Flower Street (Santa Ana)	66.5	38,778	66.5	-	127	273	0.0

Table 4.9-12: Project Traffic Noise Levels

Roadway Segment	Existing[a]	Existing with Project					Difference in dBA CNEL @ 100 Feet from Roadway
	dBA CNEL @ 100 Feet from Roadway Centerline	ADT	dBA CNEL @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline (Feet)			
				70 dBA CNEL Noise Contour	65 dBA CNEL Noise Contour	60 dBA CNEL Noise Contour	
Flower Street and Main Street (Santa Ana)	66.5	39,220	66.6	-	128	275	0.1
Main Street and SR-55 SB Ramps (Santa Ana)	67.6	49,871	67.7	70	151	325	0.1
SR-55 SB Ramps and SR-55 NB Ramps (Santa Ana/Irvine)	68.1	51,155	68.2	-	163	350	0.1
Sunflower Avenue between:							
Fairview Street and Bear Street (Santa Ana/Costa Mesa)	62.4	51,155	62.4	-	67	145	0.0
Bear Street and South Plaza Drive (Santa Ana/Costa Mesa)	64.9	16,180	65.0	-	99	214	0.1
South Plaza Drive and Bristol Street (Santa Ana/Costa Mesa)	64.8	28,892	65.0	-	101	217	0.2
Bristol Street and Flower Street (Santa Ana/Costa Mesa)	63.7	29,457	63.7	-	82	177	0.0
Bristol Street and Flower Street (Santa Ana/Costa Mesa)	62.9	21,829	62.9	-	72	156	0.0
Bristol Street							
South of Baker Street (Santa Ana)	65.1	28,045	65.1	-	101	218	0.0

Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level; - = Contour located within the roadway right of way; NB = northbound; SB = southbound.

[a] Refer to Table 4.9-8: Existing Traffic Noise Levels.

Source: Michael Baker International, April 2025, Noise Measurements and Calculations (Appendix G).

Residential Uses

Future development of residential uses would create stationary noise typical of any new residential development. Noise that is typical of residential areas includes children playing, pets, amplified music, pool and spa equipment operation, mechanical equipment, woodworking, car repair, and home repair. Noise from residential stationary sources would primarily occur during the "daytime" activity hours assuming noises decrease during nighttime hours (e.g., people go to sleep and/or close their windows). Residential uses include multi-family residential uses in either mixed-use buildings or apartment/multi-family buildings. Noise sources from such multi-family residential uses could include all the noise sources noted above, along with noise from any outdoor activity areas, such as community/association pools, children's play areas, and rooftop decks. The potential noise impacts from such outdoor activity areas would be dependent on various factors, including the type, scale, and intensity of use of such facilities, the orientation of projects in relation to the activity area, the proximity of sensitive receptors, and the background ambient noise level. However, like all residential uses, the proposed project would be required to comply with Section 18.312 of the SAMC, which prohibits any source of sound at any location from exceeding the City's exterior daytime and nighttime noise standards. The required compliance with the SAMC would ensure that potential noise impacts from the project would be less than significant. Moreover, per Assembly Bill 1307 and Public Resources Code Section 21085, "the effects of noise generated by [residential] project occupants and their guests on human beings is not a significant effect on the environment."

Commercial Uses

Under the existing conditions, noise sources associated with commercial uses are typically caused by delivery trucks, trash trucks, air compressors, generators, outdoor loudspeakers, and gas venting. In commercial and business areas, noise sources at loading areas may also include maneuvering and idling trucks, truck refrigeration units, forklifts, banging and clanging of equipment (i.e., hand carts and roll-up doors), noise from public address systems, and voices of truck drivers and employees. However, commercial noise activities currently exist on-site, and the implementation of the proposed project would not introduce an entirely new commercial noise source. The proposed project's commercial uses would be located more than 500 feet from the existing sensitive receptors to the north and west. It should be also noted that these commercial uses would be surrounded by the future proposed residential building to the north and west which would block the line-of-sight between the stationary noise sources and the sensitive receptors. Furthermore, stationary noise generated from commercial developments would be required to implement specific noise attenuation techniques, if/as necessary, to ensure noise levels do not exceed Section 18.312 of the SAMC requirements. Compliance with Section 18.312 of the SAMC, which prohibits any source of sound at any location exceeding the exterior daytime and nighttime noise standards, would reduce potential impacts to a less-than-significant level.

Mechanical Equipment

Typical mechanical equipment associated with stationary sources includes heating, ventilation, and air conditioning (HVAC) units. HVAC units typically generate noise levels of approximately 66 dBA L_{eq} at 3 feet from the source.[10] HVAC units could be included on the rooftops of the proposed buildings. Potential HVAC units would be located as close as 75 feet from the nearest sensitive receptors to the north and 100 feet from the nearest sensitive receptor to the west. At the distance of 75 feet, HVAC noise levels would attenuate to approximately 38 dBA L_{eq} and, at

[10] Berger, Elliott H., et al., 2015, Noise Navigator Sound Level Database with Over 1700 Measurement Values, available at: https://multimedia.3m.com/mws/media/888553O/noise-navigator-sound-level-hearing-protection-database.pdf.

the distance of 100 feet, HVAC noise levels would attenuate to approximately 36 dBA L_{eq}. Therefore, noise levels from the mechanical equipment would not exceed the City of Santa Ana's noise standards for residential uses (i.e., 55 dBA L_{eq} for daytime and 50 dBA L_{eq} for nighttime) and would be lower than existing ambient noise levels near the site (50.9 dBA L_{eq} to 54.1 dBA L_{eq}); refer to Table 4.9-7: Ambient Noise Measurements. Furthermore, the HVAC equipment would be located on the rooftops of the proposed buildings and would be shielded using a parapet wall from the direct line of sight of the nearest sensitive receptors to the north and west. Therefore, the nearest sensitive receptors would not be directly exposed to substantial noise from on-site mechanical equipment and impacts would be less than significant.

Outdoor Gathering Areas and Parking Areas

Noise generated by groups of people (i.e., crowds) is dependent on several factors including vocal effort, impulsiveness, and the random orientation of the crowd members. Crowd noise is estimated to be approximately 62 dBA Leq at one meter (i.e., 3.28 feet) from the source.[11,12] Noise has a decay rate due to distance attenuation, which is calculated based on the Inverse Square Law. Based upon the Inverse Square Law, sound levels decrease by 6 dBA Leq for each doubling of distance from the source.[13] Within the proposed project boundaries, groups of people have the potential to gather in outdoor spaces at the courtyards and rooftop amenity area. The nearest sensitive receptors (i.e., residential uses) would be located as close as 75 feet to the north and 100 feet to the west from the proposed courtyards and rooftop amenity area. Therefore, noise from outdoor gathering spaces would be approximately 35 dBA Leq at the nearest receptor to the north and approximately 32 dBA Leq at the nearest sensitive receptor to the west. As such, noise levels from the outdoor gathering areas would not exceed the City of Santa Ana's noise standards for residential uses noise standards for residential uses (i.e., 55 dBA Leq for daytime and 50 dBA Leq for nighttime) and would be lower than existing ambient noise levels near the site (50.9 dBA Leq to 54.1 dBA Leq); refer to Table 4.9-7: Ambient Noise Measurements. Impacts would be less than significant.

Regarding parking noise, implementation of the proposed project would involve new parking areas. While noise from parking areas, such as a car door slamming, car starting or idling, or car passing by, may result in annoyance to adjacent sensitive receptors, parking-related noise is instantaneous and intermittent. Additionally, noise generated by vehicles in parking lots would be partially masked by ambient traffic noise along Bear Street. Furthermore, parking activity noise currently exists on-site and within the project vicinity, and thus, would not represent a new or greater noise source compared to ambient noise levels. Impacts would be less than significant.

In conclusion, the project operational noise impacts would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be significant and unavoidable. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

[11] Crowd noise is estimated at 60 dBA at one meter (3.28 feet) away for raised normal speaking. This noise level would have a +5 dBA adjustment for the impulsiveness of the noise source, and a -3 dBA adjustment for the random orientation of the crowd members. Therefore, crowd noise would be approximately 62 dBA at one meter from the source.

[12] Hayne, M.J., 2006, Prediction of Crowd Noise, available at: https://www.acoustics.asn.au/conference_proceedings/AASNZ2006/papers/p46.

[13] Ibid.

MITIGATION MEASURES

Project-Specific Mitigation Measure

As discussed above, project-specific MM NOI-1 would be implemented to reduce potentially significant impacts related to potential construction noise during nighttime concrete pours.

MM NOI-1: Incorporation of a Nighttime Construction Noise Control Plan

Prior to the issuance of a permit to conduct nighttime construction activities (e.g., overnight concrete pours), the project applicant shall obtain a permit from the City to complete work outside the standard construction hours outlined in Santa Ana Municipal Code Section 18-314(e). In addition, the project applicant and/or contractor(s) shall develop a nighttime construction noise control plan that demonstrates the construction techniques that will be implemented to ensure noise levels remain below the FTA's nighttime construction noise criterion of 70 dBA L_{eq}. The construction techniques shall include the following:

- During construction, stationary construction equipment will be placed such that emitted noise is directed away from sensitive noise receptors.
- If overnight concrete pours are conducted during Phase 2, temporary noise barriers or enclosures shall be used along the northern and western property lines to break the line-of-sight between the construction equipment and the adjacent residences. If overnight concrete pours are conducted during Phase 3, temporary noise barriers or enclosures shall be used along the northern property line to break the line-of-sight between the construction equipment and the adjacent residences. The temporary noise barriers or enclosures shall have a sound transmission class (STC) of at least 10 or greater in accordance with American Society for Testing and Materials Test Method E90, or at least 2 pounds per square foot to ensure adequate transmission loss characteristics. In order to achieve this, the barriers may consist of 3-inch steel tubular framing, welded joints, a layer of 18-ounce tarp, a 2-inch-thick fiberglass blanket, a half-inch-thick weatherwood asphalt sheathing, and 7/16-inch sturdy board siding with a heavy duct seal around the perimeter. The length, height, and location of noise control barrier walls shall be adequate to assure proper acoustical performance. In addition, to avoid objectionable noise reflections, the source side of the noise barriers shall be lined with an acoustic absorption material meeting a noise reduction coefficient rating of 0.70 or greater in accordance with American Society for Testing and Materials Test Method C423. All noise control barrier walls shall be designed to preclude structural failure due to such factors as winds, shear, shallow soil failure, earthquakes, and erosion.
- Construction contracts will specify that all construction equipment, fixed or mobile, will be equipped with properly operating and maintained mufflers and other state-required noise attenuation devices.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of project specific MM NOI-1, impacts related to Threshold N-1 would be less than significant.

N-2: Would the project generate excessive groundborne vibration or groundborne noise levels? *[GPU PEIR Impact 5.12-3]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

The GPU PEIR Impact 5.12-3 determined that construction activity would generate varying degrees of ground vibration, depending on the construction procedures and equipment, that have the potential to exceed the FTA criteria for architectural damage as shown on Table 4.9-1: Structural Vibration Damage Criteria (e.g., 0.12 inches/second PPV for fragile or historical resources, 0.2 inches/second PPV for non-engineered timber and masonry buildings, and 0.3 inches/second PPV for engineered concrete and masonry). The GPU PEIR determined that implementation of GPU PEIR MM N-2, which requires preparation of a noise and vibration analysis for projects requiring pile driving during construction within 135 feet of fragile structures, such as historical resources, 100 feet of non-engineered timber and masonry buildings (e.g., most residential buildings), or within 75 feet of engineered concrete and masonry (no plaster), or use of a vibratory roller within 25 feet of any structure, and adherence to associated performance standards, would reduce impacts to a less-than-significant level.

The GPU PEIR determined that the potential for sensitive receptors within the plan area to be exposed to annoying and/or interfering levels of vibration from commercial or industrial operations and existing railroad lines was not possible to quantify because specific project-level information was not available at the time the GPU PEIR was prepared. However, the GPU PEIR determined that implementation of GPU PEIR MM N-3, which applies to new residential projects located within 200 feet of existing railroad lines and GPU PEIR MM N-4, which applies to industrial developments, would reduce potential vibration impacts during operation to less than significant levels.

Proposed Project Impact Analysis

Construction

Project construction can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Since the project may potentially use pile drivers during construction and the nearest residences are multi-family residences approximately 75 feet from the project site, GPU PEIR MM N-2 is applicable to the project, which requires the following:

Prior to issuance of a building permit for a project requiring pile driving during construction within 135 feet of fragile structures, such as historical resources, 100 feet of non-engineered timber and masonry buildings (e.g., most residential buildings), or within 75 feet of engineered concrete and masonry (no plaster); or a vibratory roller within 25 feet of any structure, the project applicant shall prepare a noise and vibration analysis to assess and mitigate potential noise and vibration impacts related to these activities. This noise and vibration analysis shall be conducted by a qualified and experienced acoustical consultant or engineer. The vibration levels shall not exceed Federal Transit Administration (FTA) architectural damage thresholds (e.g., 0.12 inches per second [in/sec] peak particle velocity [PPV] for fragile or historical resources, 0.2 in/sec PPV for non-engineered timber and masonry buildings, and 0.3 in/sec PPV for engineered concrete and masonry). If vibration levels would exceed this threshold, alternative uses such as drilling piles as opposed to pile driving and static rollers as opposed to vibratory rollers shall be used. If necessary, construction vibration monitoring shall be conducted to ensure vibration thresholds are not

exceeded.

The project has completed the requirements of GPU PEIR MM N-2 by preparing a project noise and vibration evaluation; the results of the analysis and evaluation of the project's effects with respect to the thresholds provided in GPU PEIR MM N-2 are incorporated into the analysis herein.

Construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 25 feet from most construction vibration sources. This distance can vary substantially depending on the soil composition and underground geological layer between the vibration source and the receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. Construction activities that may result under the proposed project have the potential to generate ground-borne vibration. This evaluation uses the California Department of Transportation human reaction criterion of 0.2 in/sec PPV for vibration annoyance, and FTA architectural damage criterion for continuous vibrations of 0.2 in/sec PPV for non-engineered timber and masonry buildings because the closest structures to the project site are multi-family residential buildings. Table 4.9-13: Typical Vibration Levels for Construction Equipment identifies various vibration velocity levels for types of construction equipment that could operate within the project area during construction.

Table 4.9-13: Typical Vibration Levels for Construction Equipment

Equipment	Reference peak particle velocity at 25 feet (inch-per-second)[a]	Reference peak particle velocity at 75 feet (inch-per-second)
Pile Driver (impact)	0.644	0.1239
Large Bulldozer	0.089	0.0171
Loaded Trucks	0.076	0.0146
Jackhammer	0.035	0.0067
Vibratory Roller	0.210	0.0404
Small Bulldozer	0.003	0.0006

Notes:

[a] Calculated using the following formula: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.1}$ where:

PPV (equip) = the peak particle velocity in inch-per-second of the equipment adjusted for the distance

PPV (ref) = the reference vibration level in inch-per-second at 25 feet from Table 18 of the Caltrans *Transportation and Construction Vibration Guidance Manual*

D = the distance from the equipment to the receiver

Source: California Department of Transportation, 2020, Transportation and Construction Vibration Guidance Manual, available at: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf.

The ground-borne vibration generated during construction activities would primarily impact existing sensitive uses that are located adjacent to or within the immediate vicinity of individual projects. As shown in Table 4.9-13: Typical Vibration Levels for Construction Equipment, vibration levels could reach up to 0.210 inch-per-second PPV for typical construction activities, and up to 0.644 inch-per-second PPV if pile driving activities were to occur, within 25 feet of construction. The nearest structures to the project construction activities with sensitive receptors are the existing multi-family residential uses located approximately 75 feet to the north of the project site. As shown in Table 4.9-13: Typical Vibration Levels for Construction Equipment, vibration levels

during the operation of construction equipment would range from approximately 0.0006 inch/second PPV to approximately 0.1239 inch/second PPV at 75 feet. As a result, construction groundborne vibration would not be capable of exceeding the 0.2 inch-per-second PPV significance threshold for human annoyance or building damage at the nearest sensitive receptor. Therefore, vibration impacts would be less than significant impact during construction.

Operation

Implementation of the proposed project would not involve land uses that include or require equipment, facilities, or activities that would result in perceptible groundborne vibration. Heavy duty trucks would occasionally travel through the surrounding roadways. However, according to the FTA, it is unusual for vibration from sources, such as buses and trucks, to be perceptible, even in locations close to major roads.[14] As such, it can be reasonably inferred that operation of the proposed project would not create perceptible vibration impacts to the nearest sensitive receptors. Therefore, vibration impacts related to human annoyance and building damage during operation would be less than significant.

In conclusion, the project's construction and operational vibration impacts would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be significant and unavoidable. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

As mentioned, the requirements of GPU PEIR MM N-2 have been performed, and impacts related to Threshold N-2 would be less than significant. Therefore, no mitigation measures are required. It should also be noted that GPU PEIR MM N-3 applies to residential projects within 200 feet of existing railroad lines and GPU PEIR MM N-4 applies to industrial developments, and therefore are not applicable to this project.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold N-2 were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

N-3: ***For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*** *[GPU PEIR Impact 5.12-4]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

The GPU PEIR Impact 5.12-4 determined that future development of noise-sensitive land uses could be located within areas where airport noise exceeds 60 dBA CNEL. Noise element policies 3.1, 3.2, and 3.3 would require new development located within the airport's noise contours to be sufficiently mitigated to acceptable interior noise levels. The GPU PEIR concluded that, with

[14] Federal Transit Administration, 2018, Transit Noise and Vibration Impact Assessment Manual, available at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf.

implementation of the noise element policies listed, impacts would be less than significant.

Proposed Project Impact Analysis

The nearest airport is John Wayne Airport (SNA) located approximately 1.5 miles southeast of the project site. As shown in Figure 4.6-1, the project site is located within the AELUP for John Wayne Airport (SNA) and the Federal Aviation Regulations Part 77 Notification Area, but outside of the General Aviation Runway Safety Zones.[15] The project site is also located outside of the 60 dBA CNEL noise contour for John Wayne (SNA).[16,17] California Building Code Title 21 standards states that the basis for the acceptable level of aircraft noise for persons living in the vicinity of airports is 65 dBA CNEL.[18] As such, future sensitive uses proposed under the project would be located outside of the 60 dBA CNEL noise contour of John Wayne Airport (SNA). Additionally, the project site is not located within the vicinity of a private airstrip or related facilities. Therefore, project implementation would not expose people residing or working in the project area to excessive noise levels associated with aircraft. As such, the impacts would be less than significant.

In conclusion, impacts resulting from the airport noise would be less than significant, and would be less than the impacts disclosed in the GPU PEIR, which were determined to be less than significant. Therefore, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold N-3 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold N-3 were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

4.9.6 CUMULATIVE IMPACTS

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to the GPU PEIR, the extent of analysis of cumulative impacts for noise is contiguous with the City and the sphere of influence boundary. The GPU PEIR did not identify any significant cumulative impacts related to noise.

Proposed Project Impact Analysis

[15] Orange County Airport Land Use Commission, 2008, Airport Environs Land Use Plan for John Wayne Airport, available at: https://files.ocair.com/media/2021-02/JWA_AELUP-April-17-2008.pdf.
[16] City of Santa Ana, 2020, City of Santa Ana General Plan, Safety Element, Figure S-4, Airport Safety Zones, available at: https://general-plan-santa-ana-ca.proudcity.com/documents/figure-s-4-airport-safety-zones/.
[17] City of Santa Ana General Plan, 2019, John Wayne Airport Annual 60-75 (5 dB intervals) CNEL Noise Contours, available at: https://files.ocair.com/media/2021-03/2019.pdf?VersionId=IanRsB2R2SvCDDlkbaeTGBI2J4kCdANw.
[18] Ibid.

As indicated in Chapter 4, Environmental Impacts Analysis, there are 32 related projects in the vicinity of the project. Of the 32 related projects, 20 are located in the City of Santa Ana, 8 are located in the City of Costa Mesa, and 4 are located in the City of Irvine. The assessment of cumulative noise impacts considers development of the proposed project in combination with ambient growth and other development projects within the vicinity of the proposed project. As noise is a localized phenomenon, and drastically reduces in magnitude as distance from the source increases, only projects and ambient growth in the nearby area could combine with the proposed project to result in cumulative noise impacts. Therefore, for the purposes of evaluating cumulative impacts with respect to noise for the project, the geographic area considered includes the noise sources in areas surrounding the project site, which are considered in the below analyses.

Additionally, it is important to note that the cumulative analysis considers both whether there would be a cumulatively significant noise increase due to the proposed project in combination with cumulative growth (combined effects) and whether the project has a cumulatively considerable incremental effect to such a cumulatively significant noise increase. In other words, a significant portion of the noise increase must be due to the proposed project. The incremental effect of the cumulative noise increase is evaluated when the “Existing With Project” causes a 1 dBA increase in noise over the “Future Without Project” noise level. The project would result in a significant impact only if both the combined and incremental effects criteria have been exceeded and the resulting noise level exceeds the applicable exterior standard at a noise sensitive use.

Cumulative Construction Noise

Construction activities associated with the proposed project and cumulative growth may overlap, resulting in increased construction noise in the project vicinity. However, construction noise primarily affects the areas immediately adjacent to a construction site. Due to the distance and intervening structures, cumulative construction noise from related projects would not be perceptible. With exception of the Related Bristol Specific Plan Project, the related projects are located at distances well removed from the project site. The Related Bristol Specific Plan Project is located directly to the east of the proposed project site of which construction of the area closest to the proposed project would not overlap (Related Bristol Specific Plan Phase 1 construction start 2026) with construction of the project in the area directly adjacent (proposed project Phase 4 construction start 2036). The Related Bristol Specific Plan Project is anticipated to be completed in 2036. Nonetheless, the proposed project and related projects within the City, including the Related Bristol Specific Plan Project would be required to comply with the City’s noise regulations and allowable hours of construction, with the potential exception of nighttime concrete pours which would require a permit from the City. Additionally, the Related Bristol Specific Plan Project would be required to comply with GPU PEIR MM N-1 and GPU PEIR MM N-4, and would implement project-specific noise mitigation. With implementation of the City’s noise regulations and mitigation measures, coupled with the rapid attenuation of noise with distance, construction noise from the proposed project and Related Bristol Specific Plan Project would not combine to result in significant cumulative effects. Again, the only potential exception would be in the unlikely event that nighttime concrete pours for both the Related Bristol Specific Plan Project and the proposed project occur on the same nights in the vicinity of each other. Regardless, in such a case, both projects would be required to obtain a permit from the City, including development of a nighttime construction noise control plan, as specified in the respective project-specific noise mitigation measures, which would reduce noise levels below the significance criteria. Therefore, the project’s contribution to cumulative noise impacts would be less than significant with implementation of project-specific MM NOI-1.

Cumulative Mobile Noise

A cumulative traffic noise increase would be considered significant when the combined effect exceeds the perception level (i.e., auditory level increase) threshold. The combined effect compares the "Cumulative with Project" condition to the "Existing" conditions. This comparison accounts for the traffic noise increase from the project generated in combination with traffic generated by cumulative growth. The combined effect of the cumulative noise increase is evaluated when the cumulative with project noise level ("Existing With Project") causes a 3 dBA CNEL increase over existing conditions. The project would result in a significant cumulative impact and the resulting noise level exceeds the applicable exterior standard at a sensitive use.

The cumulative mobile noise analysis is conducted in a two-step process. First, the combined effects from both the proposed project and other related projects are compared. Second, for combined effects that are determined to be cumulatively significant, the project's incremental effects then are analyzed. The project's contribution to a cumulative traffic noise increase would be considered significant when the combined effect exceeds perception level (i.e., auditory level increase) threshold. The combined effect compares the "Existing With Project" condition to "Existing" conditions. This comparison accounts for the traffic noise increase from the project generated in combination with traffic generated by cumulative growth.

As mentioned, a significant impact would result only if both the combined (including an exceedance of the applicable exterior standard at a sensitive use) and incremental effects criteria have been exceeded. Noise by definition is a localized phenomenon and reduces as distance from the source increases. Consequently, only the proposed project and growth due to occur in the project site's general vicinity would contribute to cumulative noise impacts.

Table 4.9-14: Cumulative Noise Scenario lists the traffic noise effects along roadway segments in the project vicinity for "Existing," "Future Without Project," and "Existing With Project" conditions, including incremental and net cumulative impacts.

Table 4.9-14: Cumulative Noise Scenario

Roadway Segment	Existing	Future without Project	Existing With Project	Combined Effects	Incremental Effects	Future With Project Noise Level Exceeds City's 65 dBA CNEL Noise Standard for Sensitive Receptors?	Cumulatively Significant Impact?
	dBA CNEL @ 100 Feet from Roadway Centerline	dBA CNEL @ 100 Feet from Roadway Centerline	dBA CNEL @ 100 Feet from Roadway Centerline	Difference In dBA CNEL Between Existing and Existing With Project	Difference In dBA CNEL Between Future Without Project and Existing With Project		
Fairview Street between:							
Segerstrom Avenue and MacArthur Blvd (Santa Ana)	69.3	70.1	70.2	0.8	0.0	Yes	No
MacArthur Boulevard and Sunflower Avenue (Santa Ana)	69.1	69.9	69.9	0.9	0.0	Yes	No

Table 4.9-14: Cumulative Noise Scenario

Roadway Segment	Existing	Future without Project	Existing With Project	Combined Effects	Incremental Effects	Future With Project Noise Level Exceeds City's 65 dBA CNEL Noise Standard for Sensitive Receptors?	Cumulatively Significant Impact?
	dBA CNEL @ 100 Feet from Roadway Centerline	dBA CNEL @ 100 Feet from Roadway Centerline	dBA CNEL @ 100 Feet from Roadway Centerline	Difference In dBA CNEL Between Existing and Existing With Project	Difference In dBA CNEL Between Future Without Project and Existing With Project		
Sunflower Avenue and South Coast Drive (Costa Mesa)	68.9	69.6	69.7	0.8	0.0	Yes	No
South Coast Drive and I-405 NB Ramps (Costa Mesa)	68.0	68.9	68.9	0.9	0.0	Yes	No
I-405 NB Ramps and I-405 SB Ramps (Costa Mesa/Caltrans)	66.7	67.5	67.5	0.8	0.0	Yes	No
I-405 SB Ramps and Baker Street (Costa Mesa)	67.2	68.0	68.0	0.8	0.0	Yes	No
Bear Street between:							
Segerstrom Avenue and MacArthur Blvd (Santa Ana)	62.7	63.4	63.5	0.8	0.0	Yes	No
MacArthur Boulevard and Sunflower Avenue (Santa Ana/Costa Mesa)	63.2	64.0	64.1	0.9	0.1	No	No
Sunflower Avenue and South Coast Drive (Costa Mesa)	65.2	66.0	66.0	0.8	0.0	Yes	No
South Coast Drive and Paularino Avenue (Costa Mesa)	65.3	66.2	66.2	0.9	0.0	Yes	No
Paularino Avenue and Baker Street (Costa Mesa)	66.3	67.1	67.2	0.8	0.0	Yes	No
South Plaza Drive between:							

Table 4.9-14: Cumulative Noise Scenario

Roadway Segment	Existing	Future without Project	Existing With Project	Combined Effects	Incremental Effects	Future With Project Noise Level Exceeds City's 65 dBA CNEL Noise Standard for Sensitive Receptors?	Cumulatively Significant Impact?
	dBA CNEL @ 100 Feet from Roadway Centerline	dBA CNEL @ 100 Feet from Roadway Centerline	dBA CNEL @ 100 Feet from Roadway Centerline	Difference In dBA CNEL Between Existing and Existing With Project	Difference In dBA CNEL Between Future Without Project and Existing With Project		
MacArthur Boulevard and Callen's Common (Santa Ana)	53.8	54.8	55.1	1.3	0.3	No	No
Callen's Common and Sunflower Avenue (Santa Ana)	53.4	54.5	54.9	1.6	0.4	No	No
Bristol Street between:							
Segerstrom Avenue and MacArthur Blvd (Santa Ana)	67.1	68.1	68.1	1.0	0.0	Yes	No
MacArthur Boulevard and Callen's Common (Santa Ana)	67.3	68.4	68.4	1.2	0.0	Yes	No
Callen's Common and Sunflower Avenue (Santa Ana)	67.2	68.3	68.4	1.1	0.0	Yes	No
Sunflower Avenue and Anton Boulevard (Costa Mesa)	67.4	68.6	68.7	1.3	0.1	Yes	No
Anton Boulevard and I-405 NB Ramps (Costa Mesa)	69.3	70.6	70.6	1.4	0.1	Yes	No
I-405 NB Ramps and I-405 SB Ramps (Costa Mesa/Caltrans)	68.6	69.7	69.8	1.2	0.1	Yes	No
I-405 South Bound Ramps and Paularino Avenue (Costa Mesa)	66.5	67.3	67.4	0.9	0.0	Yes	No
Paularino Avenue and Baker Street (Costa Mesa)	66.6	67.5	67.5	0.9	0.0	Yes	No
Flower Street between:							

Table 4.9-14: Cumulative Noise Scenario

Roadway Segment	Existing	Future without Project	Existing With Project	Combined Effects	Incremental Effects	Future With Project Noise Level Exceeds City's 65 dBA CNEL Noise Standard for Sensitive Receptors?	Cumulatively Significant Impact?
	dBA CNEL @ 100 Feet from Roadway Centerline	dBA CNEL @ 100 Feet from Roadway Centerline	dBA CNEL @ 100 Feet from Roadway Centerline	Difference In dBA CNEL Between Existing and Existing With Project	Difference In dBA CNEL Between Future Without Project and Existing With Project		
Dyer Road and MacArthur Boulevard (Santa Ana)	62.2	63.0	63.0	0.8	0.0	No	No
MacArthur Boulevard and Sunflower Avenue (Santa Ana)	60.1	60.9	60.9	0.9	0.0	No	No
Main Street between:							
Dyer Road and MacArthur Boulevard (Santa Ana)	66.7	67.5	67.6	0.9	0.0	Yes	No
MacArthur Boulevard and Sunflower Avenue (Santa Ana)	65.6	66.5	66.5	0.9	0.0	Yes	No
Sunflower Avenue and Red Hill Avenue (Santa Ana/Irvine)	65.6	66.6	66.6	1.0	0.0	Yes	No
Segerstrom Avenue between:							
Fairview Street and Bear Street (Santa Ana)	63.7	64.5	64.6	0.9	0.0	No	No
Bear Street and Bristol Street (Santa Ana)	65.0	65.8	65.8	0.8	0.0	Yes	No
Bristol Street and Flower Street (Santa Ana)	64.1	64.8	64.8	0.7	0.0	No	No
Dyer Road between:							
Flower Street and Main Street (Santa Ana)	65.0	65.8	65.8	0.7	0.0	Yes	No
MacArthur Boulevard between:							

Table 4.9-14: Cumulative Noise Scenario

Roadway Segment	Existing	Future without Project	Existing With Project	Combined Effects	Incremental Effects	Future With Project Noise Level Exceeds City's 65 dBA CNEL Noise Standard for Sensitive Receptors?	Cumulatively Significant Impact?
	dBA CNEL @ 100 Feet from Roadway Centerline	dBA CNEL @ 100 Feet from Roadway Centerline	dBA CNEL @ 100 Feet from Roadway Centerline	Difference In dBA CNEL Between Existing and Existing With Project	Difference In dBA CNEL Between Future Without Project and Existing With Project		
Fairview Street and Bear Street (Santa Ana)	65.6	66.5	66.5	0.9	0.0	Yes	No
Bear Street and South Plaza Drive (Santa Ana)	66.5	67.3	67.3	0.8	0.0	Yes	No
South Plaza Drive and Bristol Street (Santa Ana)	66.1	67.0	67.0	1.0	0.1	Yes	No
Bristol Street and Flower Street (Santa Ana)	66.5	67.5	67.6	1.1	0.1	Yes	No
Flower Street and Main Street (Santa Ana)	66.5	67.5	67.6	1.1	0.1	Yes	No
Main Street and SR-55 SB Ramps (Santa Ana)	67.6	68.7	68.7	1.1	0.0	Yes	No
SR-55 SB Ramps and SR-55 NB Ramps (Santa Ana/Irvine)	68.1	69.7	69.7	1.6	0.0	Yes	No
Sunflower Avenue between:							
Fairview Street and Bear Street (Santa Ana/Costa Mesa)	62.4	63.6	63.6	1.1	0.0	No	No
Bear Street and South Plaza Drive (Santa Ana/Costa Mesa)	64.9	65.9	65.9	1.0	0.0	No	No
South Plaza Drive and Bristol Street (Santa Ana/Costa Mesa)	64.8	65.9	66.1	1.3	0.2	No	No
Bristol Street and Flower Street (Santa Ana/Costa Mesa)	63.7	64.9	64.9	1.2	0.0	No	No

Table 4.9-14: Cumulative Noise Scenario

Roadway Segment	Existing	Future without Project	Existing With Project	Combined Effects	Incremental Effects	Future With Project Noise Level Exceeds City's 65 dBA CNEL Noise Standard for Sensitive Receptors?	Cumulatively Significant Impact?
	dBA CNEL @ 100 Feet from Roadway Centerline	dBA CNEL @ 100 Feet from Roadway Centerline	dBA CNEL @ 100 Feet from Roadway Centerline	Difference In dBA CNEL Between Existing and Existing With Project	Difference In dBA CNEL Between Future Without Project and Existing With Project		
Bristol Street and Flower Street (Santa Ana/Costa Mesa)	62.9	64.3	64.3	1.5	0.0	No	No
Bristol Street							
South of Baker Street (Santa Ana)	65.1	66.0	66.0	1.0	0.0	Yes	No

Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level; - = Contour located within the roadway right of way; NB = northbound; SB = southbound.

Source: Refer to Section 4.13, Transportation for Average Daily Trips assumptions; Michael Baker International, April 2025, Noise Measurements and Calculations (Appendix G).

As indicated in Table 4.9-14: Cumulative Noise Scenario, none of the subject roadways exceeded the Combined Effects criterion of 3.0 dBA CNEL nor the Incremental Effects criterion of 1.0 dBA CNEL. Therefore, the proposed project, in combination with cumulative background traffic noise levels, would result in less than significant impacts.

Cumulative Stationary Noise

Although development of other projects could occur within the project area, the noise generated by stationary equipment on-site cannot be quantified due to the speculative nature of each development. Nevertheless, each cumulative project would be required to comply with Section 18.312 of the SAMC, which prohibits any source of sound at any location exceeding the City's exterior noise standards when measured on property line. Additionally, because noise dissipates as it travels away from its source, noise impacts from stationary sources would be limited to each of the respective sites and their vicinities. Due to the distance and intervening structures, cumulative stationary noise impacts would not occur. Moreover, as noted above, the proposed project would not result in significant stationary noise impacts that would significantly affect surrounding sensitive receptors. Thus, the proposed project and cumulative growth are not anticipated to result in a significant cumulative impact.

Cumulative Vibration Impacts

As discussed above, project operational activities would not generate substantial groundborne vibration and project construction activities would not generate groundborne vibration on-site above the 0.2 inch/second PPV threshold as established by the FTA. Groundborne vibration generated from cumulative growth would be isolated to the area immediately surrounding the vibration source. Therefore, the project's contribution to cumulative vibration impacts would be

less than significant.

MITIGATION MEASURES

Impacts related to cumulative impacts would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Cumulative impacts related were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

4.10 POPULATION AND HOUSING

This section analyzes the project's potential population, employment, and housing impacts that could occur as a result of the project. As the project pursues buildout of part of the South Bristol Street Focus Area, as identified in the City's GPU Land Use Plan, which was analyzed in the GPU PEIR, this section compares the project's impacts with the impacts identified in the GPU PEIR. Demographic data presented in this section is from the U.S. Census, California Department of Finance (DOF), Southern California Association of Governments (SCAG) growth forecasts, the City of Santa Ana GPU and GPU PEIR, adopted in 2022, and California State University Fullerton, Center for Demographic Research.

4.10.1 REGULATORY FRAMEWORK

STATE

California Housing Element Law

California Planning and Zoning Law requires each city and county to adopt a general plan for future growth (California Government Code Section 65300). Among other things, the general plan must include a housing element that identifies housing needs for all economic segments and provides opportunities for housing development to meet that need. At the state level, the California Department of Housing and Community Development Department (HCD) estimates the relative share of California's projected population growth that would occur in each county based on DOF population projections and historical growth trends. These figures are compiled by HCD in a Regional Housing Needs Assessment (RHNA) for each region of California. Where there is a regional council of governments, HCD provides the RHNA to the council. Such is the case for the City of Santa Ana, which is a member of SCAG. The council, in this case SCAG, then assigns a share of the regional housing need to each of its cities and counties. The HCD oversees the process to ensure that the council of governments distributes its share of the state's projected housing need.

Regional Housing Needs Allocation

The RHNA is mandated by state housing law as part of the periodic process of updating housing elements of local general plans. State law requires that housing elements identify RHNA targets set by HCD to encourage each jurisdiction in the state to provide its fair share of very low, low, moderate, and upper income housing. The RHNA provides a long-term outline for housing within the context of local and regional trends and housing production goals.

SCAG determines total housing need for each city and county in Southern California based on three general factors: 1) the number of housing units needed to accommodate future population and employment growth; 2) the number of additional units needed to allow for housing vacancies; and 3) the number of very low, low, moderate, and above-moderate income households needed. All cities and counties must ensure there are sufficient planned and zoned housing sites to accommodate the projected needs of the area. Additionally, they should implement proactive programs to facilitate and encourage the production of housing commensurate with its housing needs.

REGIONAL

SCAG Regional Transportation Plan/Sustainable Communities Strategy

As Southern California's designated council of governments, the SCAG develops a methodology to allocate, by income level, the region's share of statewide housing need to cities located within

Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. This process is achieved as part of the regional Sustainable Communities Strategy, and allocations are developed in coordination with the Orange County Council of Governments (OCCOG).[1]

On September 3, 2020, the SCAG Regional Council adopted "Connect SoCal," the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Connect SoCal integrates transportation planning with economic development and sustainability planning to comply with state greenhouse gas (GHG) emissions reduction goals, such as Senate Bill 375.

According to the 2020-2045 RTP/SCS, Southern California will grow from 19.5 million people, 6.3 million households, and 8.7 million jobs in 2020 to 22.5 million people, 7.6 million households, and 10 million jobs in 2045. During that time, transportation infrastructure will need to substantially expand while also meeting the GHG emissions-reduction targets set by the California Air Resources Board.

SCAG is empowered by state law to assess regional housing needs and provide a specific allocation of housing needs for all economic segments of the community for each of the region's counties and cities. The determination of each city's and county's share of regional housing needs that is required by law to be reflected in municipal general plan housing elements is based on the growth projections of the RTP/SCS.

SCAG Regional Growth Projections

SCAG is responsible for producing socioeconomic forecasts and developing, refining, and maintaining regional and small area forecasting models. The forecasts are developed in five-year increments. The current SCAG projections are provided through the year 2045. Consistency with the growth forecast, at the sub-regional level, is one criterion that SCAG uses in exercising its federal mandate to review "regionally significant" development projects for conformity with regional plans.

The City of Santa Ana had a population of 308,459 in 2022; Connect SoCal projects that the City's population will increase to 360,100 by 2045; and the number of local employment opportunities will increase from 158,980 in 2019 to 172,400 in 2045.

Orange County Council of Governments

The OCCOG is Orange County's (County) sub-regional planning organization. OCCOG is a voluntary joint-powers agency that provides a vehicle for member agencies to engage cooperatively on county issues. OCCOG also conducts studies and projects designed to improve and coordinate common governmental responsibilities across the County. OCCOG representatives also serve on SCAG committees and coordinates with SCAG to develop allocations of housing needs.

OCCOG projections are based on annual increments to develop regional growth projections for land use and transportation planning over a 25-year horizon to the year 2045. California State University Fullerton's Center for Demographic Research (CSUF CDR) is the entity through which jurisdictions in Orange County distribute and generate population, housing, and employment projections for Orange County. As provided in the City of Santa Ana GPU PEIR, OCCOG's employment, housing, and population projections data included therein were prepared by CSUF CDR.

[1] City of Santa Ana, certified September 16, 2022, *Housing Element 2021-2029*, available at: https://storage.googleapis.com/proudcity/santaanaca/uploads/2022/09/Housing_Element_-Complete-9.16.22_Compressed.pdf.

LOCAL

City of Santa Ana General Plan Update

Regulatory Requirement

As noted in the GPU PEIR, no existing regulations are applicable to population and housing impacts.

Conservation Element

The City's Conservation Element identifies the community's natural resources and communicates the benefits for retention, enhancement, and development of these reserves toward improving quality of life and the environment as a whole. The Conservation Element includes the following goals and policies related to the proposed project below.

Goal CN-1 Air Quality and Climate: Protect air resources, improve regional and local air quality, and minimize the impacts of climate change.

- *Policy CN-1.6 New and Infill Residential Development:* Promote development that is mixed use, pedestrian friendly, transit oriented, and clustered around activity centers.
- *Policy CN-1.7 Housing and Employment Opportunities:* Improve the city's jobs/housing balance ratio by supporting development that provides housing and employment opportunities to enable people to live and work in Santa Ana.

Housing Element

The City of Santa Ana's 2021-2029 Housing Element, adopted and certified in 2022, provides guidelines to expand the housing supply to meet the present and future needs of the City's population. The Housing Element addresses the need for housing for all economic segments in the City and provides goals, strategies, and actions to meet this need. The Housing Element goals and policies related to the proposed project are listed below.

Goal 1: Livable and affordable neighborhoods with healthy and safe housing conditions, community services, well-maintained infrastructure, and public facilities that inspire neighborhood pride and ownership.

- *Policy HE-1.10 Parking Management:* Support innovative and creative strategies that proactively minimize parking impacts and deficiencies within residential neighborhoods, including parking management requirements, installation of parking lifts, and incentives for active transportation.

Goal 2: Foster an inclusive community with a diversity of quality housing, affordability levels, and living experiences that accommodate Santa Ana's residents and workforce of all household types, income levels, and age groups.

- *Policy HE-2.3 Urban Village:* Create higher intensity, mixed-use urban villages and pedestrian-oriented experiences that access and support the office centers, commercial services, and cultural activities within District Centers and Urban Neighborhood designated areas.
- *Policy HE-2.5 Diverse Housing Types:* Facilitate diverse types, prices, and sizes of housing, including single-family homes, apartments, townhomes, duplexes, mixed/multiuse housing, transit-oriented housing, multigenerational housing, accessory dwelling units, and live-work opportunities.

Goal 4: Provide sufficient rental and ownership housing opportunities and supportive services for seniors, people with disabilities, families with children, and people experiencing homelessness.

- *Policy HE-4.1 Senior Housing:* Support development of affordable senior rental and ownership housing, readily accessible to support services; provide assistance for seniors to maintain and repair their homes to facilitate the maximum independent living.
- *Policy HE-4.2 Family Housing*: Facilitate and encourage the development of larger rental and ownership units for large families, including extremely low-, very low-, and low-income families as well as the provision of childcare, after-school care, and other services on-site when feasible.

Goal 5: Affirm, promote, and implement social justice and equity in the provision, type, and affordability of housing and the availability of services for all residents.

- *Policy HE-5.6 Preserve Housing:* Seek to preserve housing opportunities for all residents through actions aimed at limited displacement, preserving affordable housing, and expanding housing opportunities.

Land Use Element

The purpose of the City's Land Use Element is to provide a long-range guide for the physical development of the City, reflecting the community's vision for a high quality of life. This element guides the distribution, location, and size of new development, ensuring that residential neighborhoods are protected and that future growth is sustainable and minimizes potential conflicts. The Land Use Element goal and policies related to the proposed project are listed below.

Goal LU-2 Land Use Needs: Provide a balance of land uses that meet Santa Ana's diverse needs.

- *Policy LU-2.1 Employment Opportunities:* Provide a broad spectrum of land uses and development that offer employment opportunities for current and future Santa Ana residents.
- *Policy LU-2.5 Benefits of Mixed Use:* Encourage infill mixed-use development at all ranges of affordability to reduce vehicle miles traveled, improve jobs/housing balance, and promote social interaction.

City of Santa Ana Inclusionary Housing Requirements

The Affordable Housing Opportunity and Creation Ordinance (Santa Ana Municipal Code Section 41-1900 et seq.) establishes standards and procedures to encourage the development of housing that is affordable to a range of households with varying income levels. The purpose of the ordinance is to encourage the development and availability of affordable housing by requiring the inclusion of affordable housing units within new developments or the conversion of rental units to condominium ownership in projects containing five or more units that meet one or more of the following thresholds:

1. A change in use to allow for residential or that exceeds the general plan or zoning prescribed densities or percentage of residential development of the subject property at the time of application.
2. Implementation of the permitted residential density or percentage of residential development allowed as a result of city initiated zone changes or city initiated general plan amendments after November 28, 2011.

3. Increase of the permitted percentage of residential development allowed for a mixed-use development above the percentage permitted under the zoning classification at the time of application.
4. Development of new residential uses or increase of the permitted residential density or percentage of residential development within an overlay zone approved pursuant to division 28 of article I of this chapter.
5. Conversion of rental units to condominium ownership.

Section 41-1903 of the Affordable Housing Opportunity and Creation Ordinance lists the following projects that are exempt from the requirements of the ordinance: residential projects with development agreements, residential projects with regulatory agreements, adaptive reuse development projects, and development projects approved under the provisions of the City's Ordinance No. NS-2994.

4.10.2 ENVIRONMENTAL SETTING

PROJECT SITE

Located within the South Bristol Street Focus Area in the City of Santa Ana, the 17.2-acre project site is currently developed with the South Coast Plaza Village, which is a shopping center occupied by seven buildings comprising approximately 164,049 square feet of retail/restaurant uses, offices, and a cinema building and employing approximately 328 jobs.[2] The property also provides surface parking, a variety of trees and a half-acre lawn area. South Plaza Drive bisects the eastern and western portions of the project site. No residential uses currently exist on the project site.

POPULATION

The DOF estimates that the City of Santa Ana population was 299,630 persons in 2023, representing 9.6 percent of Orange County's estimated total population of 3,137,164 persons. CSUF CDR estimates that the City's population will increase to 320,455 in 2045, which is an increase of approximately 7.0 percent.[3,4] In comparison, Orange County is projected to have an increase in population between 2023 and 2045 by approximately 6.6 percent, as shown in Table 4.10-1: Existing and Projected Population for City of Santa Ana and Orange County.[5,6]

Table 4.10-1: Existing and Projected Population for City of Santa Ana and Orange County

Year	City of Santa Ana	Orange County
2023	299,630	3,137,164
2045	320,455	3,343,718

[2] Based on employment factors provided in the GPU PEIR, Appendix B, Table 3. For commercial uses, an existing factor of 500 square feet per employee was applied (164,049 sf x 1 employee / 500 sf = 328 jobs).

[3] California Department of Finance, 2023, Demographics, E-5 City/County Population and Housing Estimates as of 1/1/2023, available at: https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2024/, accessed February 2024.

[4] California State University, Fullerton, Center for Demographic Research, *2023 Orange County Progress Report*, 2023, available at: https://www.fullerton.edu/cdr/products/progressreport.html, accessed February 2024.

[5] California Department of Finance, 2023, Demographics, E-5 City/County Population and Housing Estimates as of 1/1/2023, available at: https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2024/, accessed February 2024.

[6] California State University, Fullerton, Center for Demographic Research, *2023 Orange County Progress Report*, 2023, available at: https://www.fullerton.edu/cdr/products/progressreport.html, accessed February 2024.

Table 4.10-1: Existing and Projected Population for City of Santa Ana and Orange County

Year	City of Santa Ana	Orange County
Percent Increase	**7.0%**	**6.6%**

Sources: California Department of Finance, 2023, Demographics, E-5 City/County Population and Housing Estimates as of 1/1/2023, available at: https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2024/, accessed February 2024; California State University, Fullerton, Center for Demographic Research, 2023, Orange County Progress Report, available at: https://www.fullerton.edu/cdr/products/progressreport.html, accessed February 2024.

HOUSING

DOF estimates that the City of Santa Ana consisted of 82,058 housing units in 2023. As shown in Table 4.10-2: Housing Estimates for City of Santa Ana and Orange County in 2023, of the housing units within the City of Santa Ana, 44.0 percent are detached single-family housing units and 34.7 percent are multi-family units within buildings containing more than five units.[7]

The housing types in the City of Santa Ana compared to those in the entire County are provided in Table 4.10-2: Housing Estimates for City of Santa Ana and Orange County in 2023, which shows that the County has a slightly higher percentage of detached single-family housing units and a lower percentage of multi-family housing units than the City. In addition, the DOF details that the City had an average household size of 3.72 persons per household. In comparison, the County had an average household size of 2.83 persons per household.[8]

Table 4.10-2: Housing Estimates for City of Santa Ana and Orange County in 2023

Unit Type	City of Santa Ana		Orange County	
	Quantity	Percent	Quantity	Percent
Single-family detached	36,130	44.0%	570,763	49.6%
Single-family attached	6,073	7.4%	143,166	12.4%
Multi-family (2-4 units)	7,505	9.1%	94,541	8.2%
Multi-family (5+ units)	28,480	34.7%	309,290	26.9%
Mobile homes	3,870	4.7%	32,183	2.8%
Total	82,058	100.0%	1,149,943	100%
Persons per Household	3.72 persons per household		2.83 persons per household	
Vacancy Rate	3.2%		5.1%	

Source: California Department of Finance, 2023, Demographics, E-5 City/County Population and Housing Estimates as of 1/1/2023, available at: https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2024/, accessed February 2024.

[7] California Department of Finance, 2023, Demographics, E-5 City/County Population and Housing Estimates as of 1/1/2023, available at: https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2024/, accessed February 2024.

[8] Ibid.

According to the United States Census, 44.8 percent of the residences within the City are owner occupied units, and the County is higher at 56.5 percent.[9] This corresponds to a rate of 55.2 percent renter-occupied units within the City and 43.5 percent within the County. The DOF population and housing estimates for 2023 show that the City of Santa Ana has a vacancy rate of 3.2 percent, and the Countywide vacancy rate is higher at 5.1 percent.[10] The data demonstrate that the City and County require diverse housing types to meet the population's housing needs.

As described by the City of Santa Ana Housing Element, an adequate supply of housing is essential to maintaining adequate choices for residents, moderating housing prices, and encouraging the normal maintenance of properties. Low vacancy rates result in price and rent escalation, while excess vacancy rates result in price depreciation, rent declines, and deferred maintenance. A housing vacancy rate of 1.5 to 2.0 percent for ownership units and 5 to 6 percent for rental units are considered optimal and would offer a variety of choices for residents.[11] Thus, the Santa Ana vacancy rate of 3.2 percent indicates that additional housing could be needed.

During March 2021 through July 2021, SCAG adopted and modified its 6th Cycle RHNA allocation plan, which covers the planning period of October 2021 through October 2029. Based on the modified plan, the City of Santa Ana is allocated 3,137 housing units.[12,13] The income breakdown of the required housing units is provided in Table 4.10-3: SCAG 6th Cycle RHNA Housing Allocation to the City of Santa Ana by Income Level.

Table 4.10-3: SCAG 6th Cycle RHNA Housing Allocation to the City of Santa Ana by Income Level

Income Level Category	City of Santa Ana	Percent of Total
Very Low (< 50% of AMI)	606	19.3%
Low (50% to 80% of AMI)	362	11.5%
Moderate (80% to 120% of AMI)	545	17.4%
Above Moderate (> 120% of AMI)	1,624	51.8%
Total	**3,137 units allocated**	**100.0%**

AMI = Area Median Income
Source: Southern California Association of Governments, updated July 2021, 6th Cycle RHNA Allocation Plan, available at: https://scag.ca.gov/sites/main/files/file-attachments/6th_cycle_final_rhna_allocation_plan_070121.pdf?1646938785. This includes a transfer from Orange County to the City of Santa Ana, which was approved by the SCAG Regional Council on 6/3/21.

9 U.S. Census Bureau, 2024, American Community Survey 2018-2022, 5-Year Estimates, Quick Facts, Santa Ana City and Orange County, California, available at: https://www.census.gov/quickfacts/fact/table/santaanacitycalifornia,orangecountycalifornia/HSD310221, accessed February 2024.

10 California Department of Finance, 2023, Demographics, E-5 City/County Population and Housing Estimates as of 1/1/2023, available at: https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2024/, accessed February 2024.

11 City of Santa Ana, 2022, Housing Element 2021-2029, available at: https://storage.googleapis.com/proudcity/santaanaca/uploads/2022/09/Housing_Element_-Complete-9.16.22_Compressed.pdf.

12 This includes a transfer from Orange County to the City of Santa Ana, which was approved by the SCAG Regional Council on 6/3/21.

13 Southern California Association of Governments, updated July 2021, 6th Cycle RHNA Allocation Plan, available at: https://scag.ca.gov/sites/main/files/file-attachments/6th_cycle_final_rhna_allocation_plan_070121.pdf?1646938785.

EMPLOYMENT

The City of Santa Ana is estimated to provide 165,193 employment opportunities as of 2023. The SCAG regional growth projections anticipate the number of jobs in the City of Santa Ana to increase by 4.4 percent to 172,400 positions in the year 2045.[14] In comparison, Orange County is projected to see a 11.5 percent increase in the number of jobs by 2045, as shown in Table 4.10-4: Existing and Projected Employment for City of Santa Ana and Orange County.

Table 4.10-4: Existing and Projected Employment for City of Santa Ana and Orange County

Year	City of Santa Ana	Orange County
2023[a]	165,193	1,775,172
2045	172,400	1,980,000
Percent Increase	**4.4%**	**11.5%**

Note: [a] Based on linear interpolation of 2016-2045 data.
Source: Southern California Association of Governments, 2020, 2020-2045 RTP/SCS, Demographics and Growth Forecast Technical Appendix, Tables 8 and 14, available at: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growth-forecast.pdf?1606001579.

The SCAG 2019 Local Profile for Santa Ana identifies that 20.8 percent of Santa Ana residents work in the City. Of the 79.2 percent of Santa Ana residents that commute to other places, 12.2 percent commute to Irvine, 6.8 percent to Anaheim, 5.5 percent to Orange, 5.3 percent to Costa Mesa, 4.2 percent to Los Angeles, 3.7 percent to Newport Beach, 2.9 percent to Tustin, 2.9 percent to Garden Grove, 2.7 percent to Huntington Beach, and 33 percent to all other destinations.[15]

JOBS TO HOUSING RATIO

The ratio of jobs to housing is a general measure of the total number of jobs and housing units in a defined geographic area, without regard to economic constraints or individual preferences. The balance of jobs and housing in an area—in terms of the total number of jobs and housing units as well as the type of jobs versus the price of housing—has implications for traffic and air quality. The jobs/housing ratio is one indicator of a project's effect on growth and quality of life in the project area. SCAG applies the jobs-housing ratio at the regional and subregional levels to analyze the fit between jobs, housing, and infrastructure. A major focus of SCAG's regional planning efforts has been to improve this balance. As defined by SCAG, jobs and housing are in balance when an area has enough employment opportunities for most of the people who live there and enough housing opportunities for most of the people who work there. The region as a whole is balanced when job-rich subregions have ratios greater than the regional average, and housing-rich subregions have ratios lower than the regional average. Ideally, the job-housing balance would assure not only a numerical match of jobs and housing but also an economic match in type of jobs and housing.[16]

[14] Southern California Association of Governments, 2020, 2020-2045 RTP/SCS, Demographics and Growth Forecast Technical Appendix, Tables 8 and 14, available at: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growth-forecast.pdf?1606001579.
[15] Southern California Association of Governments, 2019, Profile of the City of Santa Ana, available at: https://scag.ca.gov/sites/main/files/file-attachments/santaana_localprofile.pdf?1606012682.
[16] Southern California Association of Governments, 2001, The New Economy and Jobs/Housing Balance in Southern California, available at: https://scag.ca.gov/sites/main/files/file-attachments/neweconomyjobshousingbalance.pdf.

The GPU PEIR identifies that a healthy jobs-housing balance is one new home built for every 1.5 jobs created. A job-housing imbalance can indicate high vehicle miles traveled, and potential air quality and traffic problems associated with commuting. Based on the data above from 2023, the 165,193 jobs and 82,058 housing units in the City of Santa Ana equates to approximately 2.0 jobs per housing unit.

4.10.3 THRESHOLDS OF SIGNIFICANCE

The significance thresholds used to evaluate the impacts of the proposed project related to population and housing are based on Appendix G of the State CEQA Guidelines. A project would have a significant impact related to population and housing if it would:

P-1 ***Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).***

P-2 ***Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.***

4.10.4 METHODOLOGY

The State CEQA Guidelines Section 15064(e) states that a social or economic change generally is not considered a significant effect on the environment unless the changes can be directly linked to a physical adverse change. Additionally, Appendix G of the State CEQA Guidelines indicate that a project could have a significant effect if it would induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure). Therefore, population impacts are considered potentially significant if growth associated with the proposed project would exceed projections for the area and if such an exceedance would have the potential to create a significant adverse physical change to the environment.

This evaluation of the significance of potential impacts related to population, housing, and employment is based, in part, on available data of existing population and housing trends, which are obtained from: the U.S. Census; DOF; CSUF CDR; SCAG; and the GPU PEIR. The anticipated population generated by the project is based on Chapter 3, Project Description, which states that the project would provide housing for approximately 3,659 individuals, at a 95.9 percent occupancy rate, which is consistent with the vacancy rate identified in the GPU PEIR. The anticipated employment that would be generated by the proposed project was determined by utilizing the GPU Buildout Methodology, included as Appendix B of the GPU PEIR.

Then, the scale of population at buildout and full occupancy of the proposed project was evaluated in comparison to the population growth forecasts for the GPU Focus Area that the project site is located within, pursuant to the GPU PEIR, Appendix B, Table 1 (Existing Conditions, Potential Growth, and Buildout Conditions in Santa Ana, 2020 to 2045). If projected growth with the proposed project would exceed the GPU buildout as identified in the GPU PEIR, and could create a significant change to the environment, the resulting growth would be considered “substantial,” and a significant impact would result.

4.10.5 PROJECT IMPACTS

P-1 ***Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*** *[GPU PEIR Impact 5.13-1]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

Impact 5.13-1 of the GPU PEIR addresses growth in the City at the buildout year of 2045. As detailed in the GPU PEIR, buildout under the GPU is not linked to a development timeline and is based on a conservative buildout of the parcels in the City identified in the land use plan. The GPU provides policy-level guidance and does not contain specific project proposals. Nevertheless, the GPU PEIR compared the GPU buildout with OCCOG's population, housing, and employment projections to provide a general context for comparison. OCCOG projections are based on annual increments to develop regional growth projections for land use and transportation planning over a 25-year horizon to the year 2045.

According to Impact 5.13-1 of the GPU PEIR, buildout of development pursuant to the GPU would increase the City's population from 334,774 to 431,629 people (i.e., by 96,855 people or 28.9 percent). As a component of this overall GPU PEIR buildout, the GPU PEIR estimated that the population of the South Bristol Street Focus Area would increase from 8,390 to 19,176 people and the housing in this Focus Area would increase from 220 to 5,492 housing units. The GPU PEIR also evaluated OCCOG projections for 2045. As stated therein, projections pursuant to the OCCOG would increase the City's population from 334,774 to 360,077 people (i.e., by 25,303 people or 7.6 percent).[17] As such, the population growth resulting from GPU buildout would be approximately 20 percent greater than the OCCOG's 2045 projections.[18] In addition, according to the GPU PEIR, buildout of development pursuant to the GPU would increase the City's housing from 78,792 to 115,053 units (i.e., by 36,261 units or 46.0 percent). OCCOG projects an increase in the City's housing from 78,792 to 83,385 units (i.e., by 4,593 units or 5.8 percent).[19] As such, the housing growth resulting from buildout of the GPU would be approximately 38 percent greater than the OCCOG's 2045 projections.[20]

With regard to employment, the City currently has a 2.0 jobs to housing ratio. The OCCOG projected a ratio of 2.1 jobs to housing for the City in 2045, and the GPU projected a lower ratio of 1.5 jobs to housing. As provided in the GPU PEIR, a ratio of 1.5 would bring the City closer to a more equal distribution of employment and housing. Thus, the population growth resulting directly from the proposed GPU would be offset by the level of employment opportunity provided to the City's residents and workers commuting into Santa Ana. However, since buildout of the GPU would exceed the OCCOG's population and housing projections by approximately 20 and 38 percent, respectively, the GPU PEIR concluded that impacts are significant and that there are

[17] As indicated in the GPU PEIR, Table 5.13-7, OCCOG projections for the City's population and employment in 2045 were very close to SCAG projections, which estimated a population for the City of 360,100 and a housing projection of 80,100.

[18] Percentage shown as rounded in the GPU PEIR.

[19] As indicated in the GPU PEIR, Table 5.13-7, OCCOG projections for the City's population and employment in 2045 were very close to SCAG projections, which estimated a population for the City of 360,100 and a housing projection of 80,100.

[20] Percentage shown as rounded in the GPU PEIR.

no feasible mitigation measures to mitigate for exceeding the OCCOG projections. As such, impacts would be significant and unavoidable.

Proposed Project Impact Analysis

As described in Chapter 3, Project Description, the proposed project would be constructed in phases and could take up to 20 years to complete. During the periods of construction, an estimated daily average of 150 and maximum of 300 construction workers would be employed. As shown in Table 4.10-1: Existing and Projected Population for City of Santa Ana and Orange County, the proposed project site is located within a well-populated city and county, and it is expected that construction workers would be drawn from the large regional workforce to build out the project phases. As the nature of typical construction efforts in urbanized, developed areas such as the proposed project is temporary and involves commuting to construction sites, the construction workers are not expected to relocate to the project site area and result in substantial unplanned population growth in the area. As a result, construction impacts would be less than significant.

Operation of the proposed project would include up to 1,583 residential units (encompassing approximately 1,850,000 square feet of building space), 80,000 square feet of retail space, 300,000 square feet of office space, and approximately 7.5 acres of publicly accessible open space and common areas. As such, the proposed project would introduce housing and a residential population to a site where none currently exist. Specifically, as stated in Chapter 3, Project Description, the project would provide housing for approximately 3,659 individuals, at a 95.9 percent occupancy rate. As previously described, the project site is located in the South Bristol Street Focus Area, for which the GPU EIR estimated an increase in population from 8,390 persons to 19,176 persons (an increase of 10,786 persons) and an increase in housing from 220 to 5,492 housing units (an increase of 5272 units). The project's estimated 3,659 residents would be 34 percent of the GPU PEIR's estimated 10,786 persons resulting from growth in the South Bristol Street Focus Area, and the proposed 1,583 housing units would be 30 percent of the GPU PEIR's estimated 5,272 housing units planned to be added in the South Bristol Street Focus Area.

The GPU PEIR estimated a Citywide increase in population from 334,774 to 431,629 persons (an increase of 96,855 persons), and in increase in housing units from 78,792 to 115,053 units (an increase of 36,261 units). The project's estimated 3,659 residents would be 3.8 percent of the GPU PEIR's estimated 96,855 persons resulting from Citywide growth, and the proposed 1,583 housing units would be 4.4 percent of the GPU PEIR's estimated 36,261 housing units planned to be added Citywide. With respect to the OCCOG 2045 projects, the project would be approximately 1.02 percent of the population and approximately 1.9 percent of the housing in Santa Ana. Therefore, the population and housing growth from the proposed project would not exceed the growth identified in the GPU PEIR.

With regard to employment, the proposed 80,000 square feet of retail space and 300,000 square feet of office space would generate approximately 985 jobs.[21] However, as previously discussed in Section 4.10.2, the project site currently has approximately 164,049 square feet of commercial uses providing an estimated 328 jobs.[22] These jobs would be replaced with the jobs from the new development and as a result, the project would generate a net increase of 657 jobs. This would not exceed the increase in 3,505,130 square feet of nonresidential space and 7,855 jobs projected for the South Bristol Street Focus Area. In addition, the proposed project would have a 0.42 jobs

[21] Based on employment factors provided in the GPU PEIR, Appendix B, Table 3. For commercial uses, a factor of 500 square feet per employee was applied. For office uses, a factor of 364 square feet per employee was applied.

[22] Based on employment factors provided in the GPU PEIR, Appendix B, Table 3. For commercial uses, an existing factor of 500 square feet per employee was applied (164,049 sf x 1 employee / 500 sf = 328 jobs).

to housing ratio (i.e., 657 jobs to 1,583 housing units). As described above, the City of Santa Ana is jobs-rich with an existing jobs-housing ratio of 2.0. The proposed project would slightly reduce (improve) the jobs to housing ratio. The project would benefit the City by introducing multi-family housing to the project site in a jobs-rich area in which employees would be able to easily commute to nearby employment opportunities. In addition, as the area is jobs-rich, the addition of residential units in the area would not require additional job growth. Therefore, the residential units would not indirectly result in the need for additional employment opportunities, which could result in growth. Furthermore, jobs associated with the project's retail and office uses would be filled to some extent by employees already residing in the vicinity of the project. Thus, the employment growth from the proposed project would not exceed the growth identified in the GPU PEIR.

The proposed project would be consistent with the land use designations proposed in the GPU PEIR, which allow for urban retail, residential, mixed-use, and employment centers with an intensity of up to 5.0 FAR and/or 125 dwelling units per acre; thus, no new substantial unplanned population growth would occur that was not previously analyzed in the GPU PEIR. Therefore, impacts related to unplanned population growth as a result of the proposed project would be less than significant.

With regard to infrastructure, all circulation and mobility improvements planned for the project including sidewalks, pedestrian paths, and a bicycle network, are intended to improve circulation flows and safety throughout the affected area as described in Section 4.13, Transportation. Utility and other infrastructure upgrades planned for the project, including improvements to the water, sewer, storm drain, and water quality systems are intended to meet project-related demand as discussed in Section 4.15, Utilities and Service Systems. Therefore, the project would not result in any significant adverse impacts in terms of the introduction of unplanned infrastructure that was not previously evaluated in the GPU PEIR.

The project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be significant and unavoidable. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold P-1 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold P-1 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

P-2 Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? *[GPU PEIR Impact 5.13-2]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

Impact 5.13-2 of the GPU PEIR determined that implementation of the GPU would provide more housing opportunities than those that currently exist by changing the land use designations of

839.7 acres of nonresidential land uses to residential uses. Specifically for the South Bristol Street Focus Area, implementation of the GPU would increase the residential area by 177.3 acres. Therefore, no impact would occur related to displacing people or housing.

Proposed Project Impact Analysis

The project site is currently developed with existing commercial retail uses and surface parking lot uses. No housing or residents are currently located within the project site. The proposed project would redevelop the approximately 17.2-acre site within the South Bristol Street Focus Area with a mix of residential and commercial uses that would provide approximately 1,583 residential units. Consistent with the GPU, implementation of the proposed project would provide additional housing opportunities. No people or housing would be displaced, and no impact would occur.

The project would result in no new significant impacts and no substantial increase in the severity of previously identified conclusions disclosed in the GPU PEIR, which determined that no impacts would occur. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

No impacts related to Threshold P-2 would occur. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

The level of significance after mitigation is not applicable, as no impacts related to Threshold P-2 would occur, and no mitigation measures are required or included.

4.10.6 CUMULATIVE IMPACTS

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to the GPU PEIR, the extent of analysis of cumulative impacts for population and housing is contiguous with the City and the sphere of influence boundary. The City's GPU is an adopted general plan and serves the purpose to accommodate the City's growth in a responsible and orderly manner through its land uses. The GPU's designation, distribution, location, balance, and intensity of land uses assist with balancing population, housing, and employment growth. Additionally, the GPU accommodates future developments by providing adequate infrastructure and public services to support the projected growth, as analyzed in the GPU PEIR. According to Tables 3-7 and 3-8 of the GPU PEIR, development based on the GPU's land use designations would increase the City's population from 334,774 to 431,629 people (i.e., by 96,855 people), the City's housing from 78,792 to 115,053 units (i.e., by 36,261 units), and the City's jobs from 158,980 to 170,416 (i.e., 11,436 jobs). As discussed in the GPU PEIR, the City's existing jobs-housing ratio is 2.0, and is considered jobs-rich. The GPU buildout would help bring the City's jobs-housing ratio to a more ideal balance at 1.5 and closer to a more equal distribution of employment and housing. However, while sufficient infrastructure and public services are available to serve the GPU development buildout, the GPU PEIR nonetheless concluded that because the increase in population and housing units exceed the OCCOG projections, the GPU buildout impacts are considered significant. While the GPU PEIR found this project-level impact to be significant and unavoidable, the GPU PEIR did not identify any significant cumulative impacts on population and housing.

Proposed Project Impact Analysis

As presented in Chapter 4, Environmental Impacts Analysis, there are 32 related projects in the vicinity of the project. Of the 32 related projects, 20 are located in the City of Santa Ana and thus, are included as part of the GPU buildout; 8 are located in the City of Costa Mesa; and 4 are located in the City of Irvine. As previously discussed, the extent of analysis of cumulative impacts for the GPU PEIR and related projects for population and housing is contiguous with the City and the sphere of influence boundary. As such, only the related projects located within the City of Santa Ana are considered for the purpose of this cumulative analysis.

The related projects located in the City of Santa Ana propose various uses, including, but not limited to, apartments, single-family residences, offices, commercial/retail uses, restaurants, hotels, warehouses, industrial uses, and gas station and car wash uses. As shown in Table 4.10-5: Estimated Population, Housing, and Employment from Related Projects within the City of Santa Ana, development of these related projects within the City would result in a net increase of 4,455 housing units, 10,458 persons, and 821 jobs. Thus, the project in combination with related projects would result in 6,038 housing units, 14,117 persons, and 1,478 jobs. As such, the project with the related projects would account for 16.7 percent of the projected housing growth (5.2 percent of the GPU buildout), 14.6 percent of the projected population growth (3.3 percent of the GPU buildout), and 12.9 percent of the projected employment growth (0.9 percent of the GPU buildout) for the City. With respect to the OCCOG 2045 projections, the project in combination with related projects would contribute to approximately 7.2 percent of the housing and 3.9 percent of the population in Santa Ana. As previously described, the addition of housing within the project area would help to balance the jobs-housing ratio within the City, providing a more equal distribution of employment and housing for the City and thereby reducing commute trips and improving air quality. On a citywide scale, the GPU buildout and related projects within the City of Santa Ana are within the GPU's vision and forecasted development buildout of accommodating growth in a responsible manner by providing a balance of jobs and housing. Therefore, the GPU buildout and related projects within the City of Santa Ana would not have a cumulatively significant impact associated with population and housing.

As discussed in Section 4.8, Land Use and Planning, the project is consistent with the GPU land use plan and envisioned growth. As discussed, the project would contribute 1,583 housing units, approximately 3,659 persons, and a net increase of 657 jobs. The proposed project, which is consistent with the GPU's land use designation and densities for the site would serve to implement the GPU land use plan and would be consistent with the GPU's buildout density, as discussed in further detail in Section 4.8, Land Use and Planning. Furthermore, the analysis in this EIR, specifically in Section 4.11, Public Services, Section 4.12, Parks and Recreation, Section 4.13, Transportation, and Section 4.15, Utilities and Service Systems, demonstrates that sufficient infrastructure, resources, and public services are available and proposed to serve the proposed project. Therefore, the project's impacts to population and housing would not be cumulatively considerable, and cumulative impacts to population and housing would be less than significant.

MITIGATION MEASURES

The project's contribution to cumulative impacts related to population and housing would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Cumulative impacts related to population and housing were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

Table 4.10-5: Estimated Population, Housing, and Employment from Related Projects within the City of Santa Ana[a]

No.	Cumulative Project	Uses	Quantity		Housing (du)	Population (persons)[b]	Employment (jobs)[c]
1	**Legado at the Met** 200 E. First American Way	Residential apartments	278	du	278	670	
2	**Our Lady of Guadalupe Office/Residence** 542 E. Central Avenue	Single-family residential	1	du	1	5	
		Office	2,972	sf			9
3	**Pollo Campero** 2320 S. Bristol Street	Fast-food restaurant with drive-thru	2,756	sf			6
4	**Garry Avenue Business Park** 1700 E. Garry Avenue	Distribution, warehousing	91,500	sf			115
5	**Shell Service Station Retail Building** 3820 S. Fairview Street	Vehicle Fueling Positions (VFP)	12	VFP	n/a	n/a	n/a
		Gas station and convenience store	1,600	sf			4
6	**3130 Fairview Industrial Building** 3130 S. Fairview Street	Industrial	82,241	sf			165
7	**Bristol Office Plaza** 1400 W. Saint Gertrude Place	Commercial	7,000	sf			14
8	**Chick-Fil-A Expansion** 3601 S. Bristol Street	Expansion of fast-food restaurant with drive-thru	627	sf			2
9	**Legacy Sunflower Apartments** 651 W. Sunflower Avenue	Apartments	226	du	226	545	
10	**Related Bristol** NWC and SWC of Bristol Street and Callen's Common	Phase 1: Demolition of retail	(244,120)	sf			(489)
		Phase 1: Residential apartments	1,375	du	1,375	3,314	
		Phase 1: Senior continuum care[d]	200 225,000	du sf	200	200	167
		Phase 1: Hotel	250	rm			225
		Phase 1: Retail	250,000	sf			500
		Phase 2: Demolition of retail	(36,522)	sf			(74)

Table 4.10-5: Estimated Population, Housing, and Employment from Related Projects within the City of Santa Ana[a]

No.	Cumulative Project	Uses	Quantity		Housing (du)	Population (persons)[b]	Employment (jobs)[c]
		Phase 2: Residential apartments	856	du	856	2,063	
		Phase 2: Retail	65,000	sf			130
		Phase 3: Demolition of retail	(184,451)	sf			(369)
		Phase 3: Residential apartments	1,519	du	1,519	3,661	
		Phase 3: Retail	35,000	sf			70
Subtotal for the Related Bristol					*3,950*	*9,238*	*Existing: (932) Proposed: 1,092 Net: 160*
11	**Harvard Warehouse** 3010 W. Harvard Street	Warehouse	4,920	sf			7
12	**Insand** 2100 W. Alton Avenue	Recreational facility	7,870	sf			16
13	**7 Leaves @ Bristol/Segerstrom** 3000 S. Bristol Street	Cafe with drive-thru	1,900	sf			4
14	**Covicon Industrial Building** 3020 W. Harvard Street	Industrial	14,500	sf			29
15	**Starbucks** 2235 S. Bristol Street	Coffee shop with drive-thru	1,200	sf			3
16	**Industrial Building** 3100 S. Harbor Boulevard	Demolition of office	(51,000)	sf			(141)
		Industrial building	162,656	sf			326
		Office	7,000	sf			20
17	**Industrial Building Addition** 3501 W. Segerstrom Avenue	Industrial building addition	17,808	sf			36
18	**IDS Real Estate Industrial Building** 300 E. Dyer Road	Demolition of industrial buildings	(92,966)	sf			(186)
		Industrial building	97,398	sf			195

Table 4.10-5: Estimated Population, Housing, and Employment from Related Projects within the City of Santa Ana[a]

No.	Cumulative Project	Uses	Quantity	Housing (du)	Population (persons)[b]	Employment (jobs)[c]
19	**Park 55 Development** 1221 E. Dyer Road	Demolition of industrial buildings	(157,000) sf			(314)
		Industrial buildings	176,000 sf			352
20	**Tommy's Car Wash** 2860 S. Main Street	Demolition of commercial building	(2,300) sf			(5)
		Car wash	1,706 sf			4
Related Projects (City of Santa Ana)				4,455 du	10,458 per	821 emp
Project				1,583 du	3,659 per[e]	657 emp
Total for Related Projects (City of Santa Ana) and Project				**6,038 du**	**14,117 per**	**1,478 emp**
GPU Growth for City[f]				***36,261 du***	***96,855 per***	***11,436 emp***
Percent of GPU Growth Attributed to Related Projects (City of Santa Ana) and Project				*16.7%*	*14.6%*	*12.9%*
GPU Buildout 2045				***115,053 du***	***413,629 per***	***170,416 emp***
Percent of GPU Buildout Attributed to Related Projects (City of Santa Ana) and Project				*5.2%*	*3.3%*	*0.9%*

Notes: sf = square feet; du = dwelling units; per = persons; emp = employees
All uses are proposed for construction unless otherwise noted. Numbers in parentheses ( ) indicate removal of such existing units or uses.
[a] City of Santa Ana Planning Department
[b] Person per household rates are based on the GPU PEIR, Appendix B, Table 4.
[c] Employment factors are based on the GPU PEIR, Appendix B, Table 3.
[d] Employment factor for the senior continuum care use is based on the SCAG Employment Density Study Summary Report, October 2001 prepared by The Natelson Company, Inc., Table B-1 Employment Densities (employees per acre) for Special Care Facilities (Code 1252) for Orange County factor of 32.24 employees per acre. Based on the nature of senior continuum care uses, one unit is assumed to house one resident.
[e] Project population is based on generation factor 2.41 for multi-family housing of 50 or more units from GPU PEIR, Appendix B, Table 4 and a vacancy rate of approximately 4.1 percent for the City of Santa Ana, GPU PEIR, Page 5.13-7.
[f] *GPU Growth* represents the growth for new development from conditions as of January 2020 (existing data aggregated for the GPU PEIR) to the forecast buildout.
Source: Michael Baker International, 2024.

4.11 PUBLIC SERVICES

This section evaluates the potential impacts to public services, including fire protection, police protection, schools, and library facilities that would result from implementation of the proposed project. This section presents the regulatory setting; environmental setting; methodology for determining potential impacts; impact analysis; proposed measures to mitigate significant impacts, if necessary; and an analysis of potential cumulative impacts pertaining to public services. As the project pursues buildout of part of the City's GPU Land Use Plan, which was analyzed in the GPU PEIR, this section compares the project's impacts with the impacts identified in the GPU PEIR.

4.11.1 REGULATORY FRAMEWORK

FEDERAL

Fire Protection and Emergency Services

International Fire Code

The International Fire Code (IFC) is a model code for regulating minimum fire-safety requirements for new and existing buildings, facilities, storage, and processes. The IFC includes general and specialized technical fire- and life-safety regulations, with topics addressing fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, use and storage of hazardous materials, protection of emergency responders, industrial processes, and various other topics. The IFC is issued by the International Code Council, which is an international organization of building officials.

STATE

Fire Protection and Emergency Services

California Fire Code

Title 24 of the California Code of Regulations, known as the California Building Standards Code (CBSC), outlines building standards and requirements throughout the state. All occupancies in California are subject to national model codes adopted into Title 24, and occupancies are further subject to amendments adopted by state agencies and ordinances implemented by local jurisdictions' governing bodies. Chapter 9 of Title 24 is known as the California Fire Code (CFC), which is based on the IFC, establishes minimum requirements for fire protection and prevention, public health, and safety, and provides safety and assistance to firefighters and emergency responders during emergency operations. As with the IFC, the CFC provides building standards to increase fire resistance and regulates minimum fire-safety requirements for new and existing buildings; facilities; storage; and processes, including the storage and handling of hazardous materials.

California Health and Safety Code

Sections 13000 et seq. of the California Health and Safety Code set fire regulations for building standards; fire protection and notification systems; use of fire protection devices, such as fire extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire-suppression training.

California Code of Regulations Title 8 and the California Occupational Safety and Health Administration

In accordance with the California Code of Regulations, Title 8 Sections 1270 “Fire Prevention” and 6773 “Fire Protection and Fire Fighting Equipment,” California Occupational Safety and Health Administration has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire house sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of all firefighting and emergency medical equipment.

School Services

California State Assembly Bill 2926 and Assembly Bill 1600

To assist in providing facilities to serve students generated by new development projects, the State passed Assembly Bill (AB) 2926 in 1986. AB 2926 allowed school districts to collect impact fees from developers of new residential and commercial/industrial building space. In 1987, AB 2926 was expanded and revised through the passage of AB 1600, the Mitigation Fee Act, which added Sections 66000 et seq. to the California Government Code to set legal and procedural requirements associated with the development impact fees.

Senate Bill 50

Senate Bill (SB) 50 sets forth a state school facilities construction program that includes restrictions on a local jurisdiction’s ability to impose mitigation for a project’s impacts on school facilities in excess of fees set forth in California Education Code Section 17620. It establishes three potential limits for school districts, depending on the availability of new school construction funding from the state and the needs of the individual school districts. Level 1 is the general school facilities fees imposed in accordance with California Government Code Section 65995, as amended. Levels 2 and 3 fees represent 50 percent or 100 percent of a school district’s school facility construction costs per new residential construction, as authorized by California Government Code Sections 65995.5, 65995.6, and 65995.7. Development fees authorized by SB 50 are deemed by Section 65996 of the California Government Code to be “full and complete school facilities mitigation.”

LOCAL

Fire Protection and Emergency Services

Orange County Fire Authority Fire Prevention Guideline B-09, Fire Master Plans for Commercial and Residential Development

The Orange County Fire Authority (OCFA) Fire Prevention Guideline B-09 requires new structures to meet standards related to access driveways, siting of hydrants, and building access, as required by the CFC. The guideline requires specific information be provided during the submittal of plans for development projects to demonstrate compliance with all codes and other regulations governing water availability for firefighting and emergency access to sites and structures within the jurisdictions served by OCFA. In addition, the guideline requires that plans be reviewed by OCFA.

City of Santa Ana General Plan Update

The City's GPU includes a regulatory requirement (RR), goals, and policies related to fire services. The following RR and goals and policies from the Public Services Element, are applicable to the proposed project.

Regulatory Requirement

RR FP-1: New buildings are required to meet the fire regulations outlined in the California Health and Safety Code (Sections 13000 et seq.).

Land Use Element

Goal LU-1 Growing Responsibly: Provide a land use plan that improves quality of life and respects our existing community.

- *Policy LU-1.9 Public Facilities and Infrastructure:* Evaluate individual new development proposals to determine if the proposals are consistent with the General Plan and to ensure that they do not compound existing public facility and service deficiencies.

Public Services Element

Goal PS-1 Public Facilities: Provide quality and efficient facilities that are adequately funded, accessible, safe, and strategically located.

- *Policy PS-1.10 Fair Share:* Require that new development pays its fair share of providing improvements to existing or creating new public facilities and their associated costs and services.

Goal PS-2 Public Safety: Preserve a safe and secure environment for all people and property.

- *Policy 2.1 Public Safety Agencies:* Collaborate with the Police Department and the Fire Authority to promote greater public safety through implementing Crime Prevention through Environmental Design (CPTED) principles for all development projects.
- *Policy PS-2.2 Code Compliance:* Require all development to comply with the provisions of the most recently adopted fire and building codes and maintain an ongoing fire inspection program to reduce fire hazards.
- *Policy PS-2.7 Staffing Levels:* Increase staffing levels for sworn peace officers, fire fighters, emergency medical responders, code enforcement, and civilian support staff to provide quality services and maintain an optimal response time citywide, as resources become available.
- *Policy PS-2.8 Efficiency Standards:* Ensure that equipment, facilities, technology, and training for emergency responders are updated and maintained to meet modern standards of safety, dependability, and efficiency.
- *Policy PS-2.10 Emergency Management Plans:* Maintain, update, and adopt an emergency operations plan and hazard mitigation plan to prepare for and respond to natural or human generated hazards.

City of Santa Ana Municipal Code

Chapter 14 – Fire Protection and Prevention and Emergency Services

The Santa Ana Municipal Code includes the 2022 CFC as published by the California Building

Standards Commission and the 2021 IFC, which together with some City-specific amendments, are known as the Fire Code of the City of Santa Ana. The City's Fire Code includes specific information regarding safety provisions, emergency planning, fire-resistant construction, fire protection systems, means of egress, and hazardous materials.

Chapter 8 – Fire Facilities Fee

Section 8-46 of the Santa Ana Municipal Code requires that a fire facilities fee be paid prior to the issuance of building permit for construction of buildings exceeding two stories in height (excluding parking structures and buildings owned and occupied by agencies of the federal, state or local governments). Buildings over two stories in height require unique firefighting equipment and fire station configurations. The purpose of the fire facilities fee is to provide revenue to pay for equipment needed to fight fires in buildings over two stories in height and to improve fire stations in the City, as necessary, to accommodate such equipment and otherwise augment the City's capability to fight fires in such buildings.

Santa Ana Municipal Code Section 35-114 – Residential Development Tax

Santa Ana Municipal Code Section 35-114 imposes an excise tax on the privilege of engaging in residential development in the City. Any tax revenues collected pursuant to this section are placed in the City's general fund, which may be used to fund public service facilities, including fire protection facilities.

Police Protection

City of Santa Ana Emergency Management

The Emergency Management division, a part of the Santa Ana Police Department's Homeland Security Division, seeks to support residents, first responders, and City staff in preparing for and responding to natural or human-caused disasters or acts of terrorism. The Emergency Management division works with all City departments and some County departments (e.g., OCFA and Orange County's Emergency Management Division), the Santa Ana Unified School District (SAUSD), American Red Cross, and surrounding cities to provide the highest possible level of disaster preparedness and coordination.

Santa Ana Municipal Code (Residential Development Tax)

Santa Ana Municipal Code Section 35-114 imposes an excise tax on the privilege of engaging in residential development in the City. Any tax revenues collected pursuant to this section are placed in the City's general fund, which may be used to fund public service facilities, including police protection facilities.

City of Santa Ana General Plan Update

The City's GPU does not include regulatory requirements related to police services. The City's GPU includes the following goals and policies from the Land Use and Public Services Elements which are applicable to the proposed project.

Land Use Element

- *Goal LU-1 Growing Responsibly*: Provide a land use plan that improves quality of life and respects our existing community.
- *Policy LU-1.9 Public Facilities and Infrastructure:* Evaluate individual new development proposals to determine if the proposals are consistent with the General Plan and to ensure

that they do not compound existing public facility and service deficiencies.

Public Services Element

Goal PS-1 Public Facilities: Provide quality and efficient facilities that are adequately funded, accessible, safe, and strategically located.

- *Policy PS-1.10 Fair Share:* Require that new development pays its fair share of providing improvements to existing or creating new public facilities and their associated costs and services.

Goal PS-2 Public Safety: Preserve a safe and secure environment for all people and property.

- *Policy PS-2.1 Public Safety Agencies:* Collaborate with the Police Department and the Fire Authority to promote greater public safety through implementing Crime Prevention through Environmental Design (CPTED) principles for all development projects.
- *Policy PS-2.7 Staffing Levels:* Increase staffing levels for sworn peace officers, fire fighters, emergency medical responders, code enforcement, and civilian support staff to provide quality services and maintain an optimal response time citywide, as resources become available.
- *Policy PS-2.8 Efficiency Standards:* Ensure that equipment, facilities, technology, and training for emergency responders are updated and maintained to meet modern standards of safety, dependability, and efficiency.
- *Policy PS-2.10 Emergency Management Plans:* Maintain, update, and adopt an emergency operations plan and hazard mitigation plan to prepare for and respond to natural or human generated hazards.

Santa Ana Police Department Strategic Plan

Consistent with the mandates and directives of the City's 5-Year Strategic Plan, the Santa Ana Police Department Strategic Plan 2019-2024 is intended to help build the envisioned and desired future for the community and the police department. The purpose of the Santa Ana Police Department Strategic Plan 2019-2024 is to frame the department's goals, priorities, and objectives, and to identify the issues, outcomes, and efforts necessary to achieve success. The department's goals include the following:

- *Strategic Goal 1*: Increase the public's safety.
- *Strategic Goal 2*: Increase community engagement.
- *Strategic Goal 3*: Increase operational excellence and efficiency.
- *Strategic Goal 4*: Train, develop, and mentor personnel.
- *Strategic Goal 5*: Recruitment, branding and succession planning.

School Services

City of Santa Ana General Plan Update

The City's GPU includes RRs, goals and policies related to schools and public facilities, including the following:

Regulatory Requirement

RR SS-1: New residential and commercial development shall pay development fees authorized by Section 65996 of the California Government Code to be "full and complete school facilities mitigation."

Land Use Element

Goal LU-1 Growing Responsibly: Provide a land use plan that improves quality of life and respects our existing community.

- *Policy LU-1.9 Public Facilities and Infrastructure:* Evaluate individual new development proposals to determine if the proposals are consistent with the General Plan and to ensure that they do not compound existing public facility and service deficiencies.

Public Services Element

Goal PS-1 Public Facilities: Provide quality and efficient facilities that are adequately funded, accessible, safe, and strategically located.

- *Policy PS-1.10 Fair Share:* Require that new development pays its fair share of providing improvements to existing or creating new public facilities and their associated costs and services.

Library Services

Santa Ana Municipal Code

Santa Ana Municipal Code Section 35-114 (Residential Development Tax) imposes an excise tax on the privilege of engaging in residential development in the City. Any tax revenues collected pursuant to this section are placed in the City's general fund, which may be used to fund public service facilities, including public libraries.

City of Santa Ana General Plan Update

The City's GPU includes RRs, goals, and policies related to library services and public facilities, including the following:

Regulatory Requirement

RR LS-1: New residential development shall pay a property excise tax per the City Municipal Code Section 35-114, Residential Development Tax.

Land Use Element

Goal LU-1 Growing Responsibly: Provide a land use plan that improves quality of life and respects our existing community.

- *Policy LU-1.9 Public Facilities and Infrastructure:* Evaluate individual new development proposals to determine if the proposals are consistent with the General Plan and to ensure that they do not compound existing public facility and service deficiencies.

Community Element

Goal CM-2 Education: Provide exceptional, accessible, and diverse educational programs and facilities to meet community needs.

- *Policy CM-2.6 Educational Funding:* Enhance educational opportunities in the community by expanding and maintaining access to libraries, learning centers, and technology through innovative funding sources.

4.11.2 ENVIRONMENTAL SETTING

FIRE PROTECTION AND EMERGENCY SERVICES

Fire protection and emergency services in the City are provided by OCFA, which is a regional fire service agency serving 23 cities within Orange County and all unincorporated areas. OCFA operates 78 fire stations (including two specialty stations) that serve and protect nearly 2 million residents over 587 square miles, including 190,822 acres of Federal and State Responsibility Areas.[1]

Within the City limits, OCFA provides regional fire and emergency services from 10 City-owned fire stations.[2] Of these 10 fire stations, five are located within 4 miles of the project site. Information regarding these five fire stations, including station locations, distances to the project site, daily staffing, total station staffing, and apparatus is detailed in Table 4.11-1: Fire Stations Near the Project Site and Figure 4.11-1: Existing Public Facilities, below.

To manage fire protection services throughout the City, a division chief is assigned exclusively to the City of Santa Ana to serve as the City's local fire chief, and three battalion chiefs, one for each of the three 24-hour shift schedules, provide daily management of station personnel and activities. In addition, an administrative staff captain, administrative assistant, nurse educator, and a fire community relations and education specialist (bilingual) are assigned to serve the City.

Based on OCFA's *2022 Statistical Annual Report*[3], the City's 10 fire stations received 40,224 service calls, comprised of calls related to fires, ruptures/explosions, emergency medical service, hazardous materials, service calls, false alarms, natural disasters, and other miscellaneous calls. According to the GPU PEIR, the OCFA's response time goal for emergency calls in urban areas is for the first response unit to arrive at a priority emergency within 7 minutes and 20 seconds, 80 percent of the time. As of the most recent available data (2023), OCFA is meeting or exceeding this expectation.[4]

[1] Orange County Fire Authority, 2023, FY2023/24 Adopted Budget, available at: https://bos.ocgov.com/finance/2024FN/ocbook_complete.pdf.
[2] Per the GPU PEIR, the City of Santa Ana signed a 10-year crash contract with OCFA that is valid until 2030. The City has until 2028 to decide whether they want to extend the OCFA contract. Staff, equipment, and facilities are all under the same contract. The OCFA contract is funded from the City's general fund.
[3] Orange County Fire Authority, 2022 Statistical Annual Report, available at: https://ocfa.org/Uploads/Transparency/OCFA%20Annual%20Report%202022.pdf.
[4] Orange County Fire Authority, 2023, FY2023/24 Adopted Budget, available at: https://bos.ocgov.com/finance/2024FN/ocbook_complete.pdf.

Table 4.11-1: Fire Stations Near the Project Site

Fire Station	Location	Distance to Project Site	Daily Staffing	Total Station Staffing	Apparatus
76	950 West MacArthur Boulevard	0.7 mile	1 Fire Captain, 1 Fire Apparatus Engineer, 2 Firefighters	12 Firefighters	1 Paramedic Truck
77	2317 South Greenville Street	2.0 miles	1 Fire Captain, 1 Fire Apparatus Engineer, 2 Firefighters	12 Firefighters	1 Paramedic Engine
74	1427 South Broadway	3.2 miles	Division VI Chief, 1 Battalion Chief, Administrative Staff Captain, 1 Fire Captain, 1 Fire Apparatus Engineer, 2 Firefighters	15 Firefighters	1 Paramedic Engine, 1 Engine
79	1320 East Warner Avenue	3.3 miles	1 Fire Captain, 1 Fire Apparatus Engineer, 2 Firefighters	12 Firefighters	1 Paramedic Engine, 1 HAZ MAT
73	419 South Franklin Street	3.4 miles	1 Fire Captain, 1 Fire Apparatus Engineer, 2 Firefighters	12 Firefighters	1 Paramedic Engine

Source: Orange County Fire Authority, Operations Division 6, Fire Stations, available at: https://ocfa.org/AboutUs/Departments/OperationsDirectory/Division6.aspx, accessed February 2024.

POLICE PROTECTION

The Santa Ana Police Department provides police protection services throughout the City. The largest and most visible component of the Santa Ana Police Department is the Field Operations Bureau, which consists of the Patrol Division and a number of specialized units that serve the community as first responders to various field incidents.[5] According to the Santa Ana Police Department's 2022 Year End Review report, the Field Operations Bureau consisted of 168 dedicated members with an additional 134 patrol officers dedicated to handling calls for service and general patrol duties. According to the 2023 Year End Review report, Santa Ana Police Department patrol officers responded to 127,657 calls for service in 2023.[6]

There are six police facilities in the City, as shown in Table 4.11-2: Santa Ana Police Department Facilities and Figure 4.11-1: Existing Public Facilities.

[5] Santa Ana Police Department, 2023, 2022 Year End Review, available at: https://storage.googleapis.com/proudcity/santaanaca/uploads/2023/03/2022-Year-End-Review-07-2023.pdf.
[6] Ibid.

Table 4.11-2: Santa Ana Police Department Facilities

Police Facilities	Location	Distance to Project Site
Santa Ana Police Headquarters/ Administration Building and Jail Facility	60 Civic Center Plaza	4.2 miles
Jose Vargas Community Affairs Office	20 Civic Center Plaza	4.5 miles
Santa Ana Regional Transportation Center Public Safety Office	1000 East Santa Ana Boulevard #107	5.5 miles
Westend Substation	3750 West McFadden Avenue #1	4.4 miles
Santa Ana Law Enforcement and Fire Training Center	3000 West Edinger Avenue	2.8 miles
Southeast Substation	1780 East McFadden Avenue #114B	5.2 miles

Source: Santa Ana Police Department, 2024, Location/Hours Information, available at: https://www.santa-ana.org/police-department-location-hours-information/, accessed February 2024.

The Santa Ana Police Department is divided into four policing districts:

- *Westend District*, serving all areas north of First Street and west of Flower Street.
- *Southcoast District*, serving all areas south of First Street and west of Flower Street.
- *Northeast District*, serving all areas north of First Street and east of Flower Street.
- *Southeast District*, serving all areas south of First Street and east of Flower Street.

Based on the Santa Ana Police Department's 2022 Year End Review report, the average response time for 911 emergency calls for service in 2022 was 5 minutes and 22 seconds,. The City's average response time is shorter than the national average response time for 911 calls in the United States, which is approximately 7 minutes for urban areas.[7]

SCHOOL SERVICES

The project site is located within the boundaries of the SAUSD, which encompasses a 24-square-mile area. The SAUSD has 57 schools, including 26 elementary schools, two K-6 schools, four K-8 schools, eight intermediate schools, seven high schools, four educational options secondary schools, one dependent charter school, one child development center, three early childhood education programs, and one K-6 deaf and hard of hearing regional program. During the 2021-2022 school year, the SAUSD had an enrollment of approximately 45,000 students.[8]

Based on the SAUSD's attendance areas, the project site is served by Thomas Jefferson Elementary School, which is located at 1522 West Adams Street; McFadden Institute of Technology (Intermediate School), which is located at 2701 South Raitt Street; and Segerstrom High School, which is located at 2301 West MacArthur Boulevard. Each school's existing capacity, 2022-23 enrollment, and remaining capacity are presented in Table 4.11-3: Existing School Capacity of Schools Serving the Project Site and Figure 4.11-1: Existing Public Facilities.

[7] Kell et al., 2017, Emergency Medical Services Response Times in Rural, Suburban, and Urban Areas, available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC5831456/, accessed November 2024.

[8] Santa Ana Unified School District, 2021-2022, Facts at a Glance, available at: https://www.sausd.us/Page/5, accessed February 2024.

Under existing conditions, enrollment in all three schools has not exceeded capacity.

Table 4.11-3: Existing School Capacity of Schools Serving the Project Site

School	Capacity[a]	2022-23 Enrollment	Remaining Capacity
Thomas Jefferson Elementary School (K-6)	975	609[b]	366
McFadden Intermediate School (6-8)	2,065	1,063[c]	1,002
Segerstrom High School (9-12)	3,024	2,489[d]	535

Notes:

[a] Enrollment capacities from Table 5.11-6 of the GPU PEIR.

Source:

[b] California Department of Education, DataQuest 2022-23 Enrollment by Grade for Jefferson Elementary Report (30-66670-6030282), available at: https://dq.cde.ca.gov/dataquest/dqcensus/enrgrdlevels.aspx?agglevel=School&year=2022-23&cds=30666706030282, accessed March 2024.

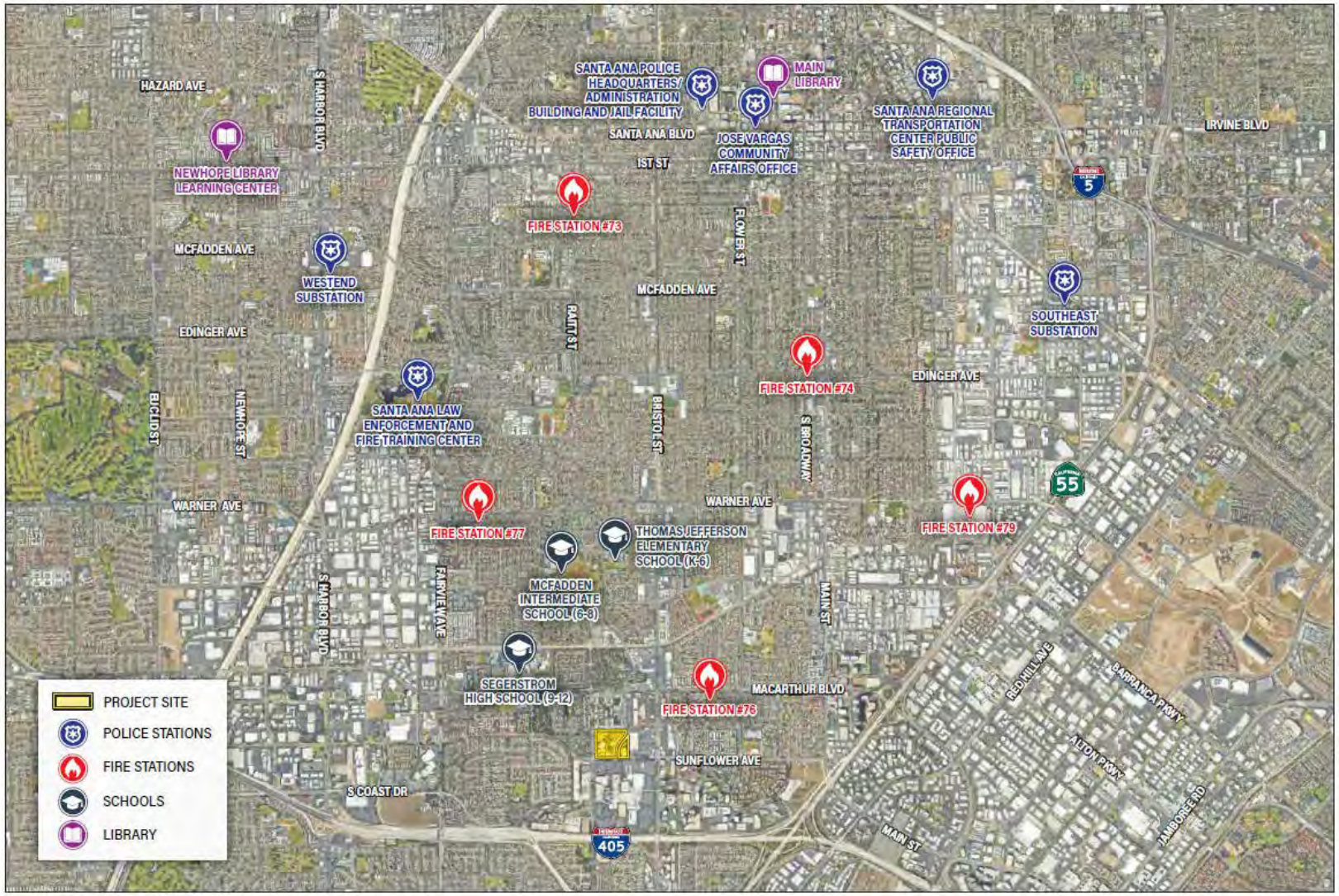
[c] California Department of Education, DataQuest 2022-23 Enrollment by Grade for McFadden Intermediate Report (30-66670-6061741), available at: https://dq.cde.ca.gov/dataquest/dqcensus/enrgrdlevels.aspx?agglevel=School&year=2022-23&cds=30666706061741, accessed March 2024.

[d] California Department of Education, DataQuest 2022-23 Enrollment by Grade for Segerstrom High Report (30-66670-0108365), available at: https://dq.cde.ca.gov/dataquest/dqcensus/enrgrdlevels.aspx?agglevel=School&year=2022-23&cds=30666700108365, accessed March 2024.

LIBRARY SERVICES

The City of Santa Ana is served by two libraries, including the Main Library, located at 26 Civic Center Plaza, and the Newhope Library Learning Center, located at 122 North Newhope Street as shown in Figure 4.11-1: Existing Public Facilities. The Main Library includes computer labs with internet access, a learning center, and the Santa Ana History Room, which collects, preserves, and makes available materials of enduring historical value relating to the development of the City of Santa Ana and Orange County. The Newhope Library Learning Center includes computer labs with internet access, a learning center, and a Teen Space, which provides a mentoring program aimed at keeping underserved Santa Ana youth off the streets, in school, and focused on college and career plans. In addition, the libraries offer laptop, Chromebook, and wireless hotspot equipment checkouts for in-house use, as well as a variety of online services, including an online digital library, a free online program for adult residents to earn a high school diploma, online tutoring, online continuing education classes, and online job seeking assistance.[9] According to the GPU PEIR at the time of its publication, the library space and number of books are considered inadequate to meet the needs of the existing population.

[9] City of Santa Ana, 2024, Library Services, available at: https://www.santa-ana.org/library-services/, accessed February 2024.



Source: Google Earth Pro, March 2024

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THE VILLAGE SANTA ANA SPECIFIC PLAN PROJECT

Existing Public Facillties

Figure 4.11-1

4.11.3 THRESHOLDS OF SIGNIFICANCE

The significance thresholds used to evaluate the impacts of the proposed project related to public services are based on Appendix G of the State CEQA Guidelines. A project would have a significant impact related to public services if it would:

FP-1: ***Result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services.***

PP-1: ***Result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection services.***

SS-1 ***Result in substantial adverse physical impacts associated with the provision of new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for school services.***

LS-1 ***Result in substantial adverse physical impacts associated with the provision of new or physically altered library facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for library services.***

Impacts of the proposed project related to parks and recreation are addressed in Section 4.12, Recreation, of this Supplemental EIR.

4.11.4 METHODOLOGY

FIRE PROTECTION AND EMERGENCY SERVICES

The potential impacts related to fire protection services were evaluated based on the ability of existing fire department staffing, equipment, and facilities to meet the additional demand for fire protection and emergency medical services resulting from implementation of the proposed project. Impacts are considered significant if implementation of the proposed project would result in inadequate staffing levels, response times, and/or increased demand for services that would require the construction or expansion of new or altered facilities that might have an adverse physical effect on the environment. For fire services, a significant impact could occur if the proposed project generated the need for additional personnel or equipment that could not be accommodated within the existing stations and would require the construction of a new station or an expansion of an existing station.

POLICE PROTECTION

The potential impacts related to police protection services were evaluated based on the ability of the Santa Ana Police Department's staffing, equipment, and facilities to meet the additional demand for police protection services resulting from implementation of the proposed project. Impacts are considered significant if implementation of the proposed project would result in inadequate staffing levels, response times, and/or increased demand for services that would

require the construction or expansion of new or altered facilities that might have an adverse physical effect on the environment. For police protection services, a significant impact could occur if the proposed project generated the need for additional personnel or equipment that could not be accommodated within the existing stations and substations and would require the construction of a new station or an expansion of an existing station.

SCHOOL SERVICES

The potential impacts related to school services were evaluated by analyzing the estimated increase in student population resulting from build out of the proposed project and comparing the increase to the capacity of schools that would serve the project site to determine whether new or altered facilities would be required, the construction of which could result in adverse environmental effects. As described in the GPU PEIR, school districts anticipate the number of students that would be generated by new residential development to plan for needed facilities. The generation rate used by the SAUSD for multi-family units are listed in Table 4.11-4: Santa Ana Unified School District Student Generation Rate.

Table 4.11-4: Santa Ana Unified School District Student Generation Rate

School Levels	Multi-Family Generation Rate (Students Per Dwelling Unit)
Elementary School (K-5)	0.1937
Intermediate School (6-8)	0.1111
High School (9-12)	0.1427

Source: Santa Ana Unified District, 2022, Residential and Commercial/Industrial Development School Fee Justification Study, available at: https://www.sausd.us/cms/lib/CA01000471/Centricity/Domain/113/SantaAnaUSD_FS_2122_Fn.pdf.

LIBRARY SERVICES

The potential impacts related to library services were evaluated by identifying the extent to which the proposed project would increase demand for services and analyzing the estimated increase in capacity of libraries that would serve the project site to determine whether new or altered facilities would be required, the construction of which could result in adverse environmental effects.

In addition, the potential impacts related to libraries were considered in the context of the capacity and use of existing libraries. Due to the wide availability of information online, library usage has been declining in recent years, and library service needs are changing with increasing resources being available online and the availability of high-speed internet services. As a result, library service standards (e.g., a certain number of volumes or square footage of building space per thousand residents) are no longer appropriate when assessing the needs of a municipal library. A more appropriate standard is related to the physical usage of the library facility in relation to its physical capacity.

Commercial and employment-generating land uses do not typically generate a demand for library services. As such, the analysis of impacts on library services is based on the number of residents generated by the proposed project and their anticipated usage of library facilities.

4.11.5 PROJECT IMPACTS

FP-1: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios and response times or other performance objectives for fire protection services? *[GPU PEIR Impact 5.14-1]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to Impact 5.14-1 in the GPU PEIR, buildout of the GPU would involve development of up to 36,261 housing units and 5,849,220 square feet of non-residential development resulting in a total of 360,077 residents and 170,416 jobs. Impact 5.14-1 of the GPU PEIR identifies a substantial increase in residents and employees would result in an increase in demand for fire protection services. However, future development under the GPU would comply with the CFC, CBSC, California Health and Safety Code, City ordinances, and applicable national standards related to fire protection and prevention, public health, and safety. In addition, the GPU PEIR determined that additional staffing, fire vehicles, equipment, and expansion of existing facilities would be funded by the City's general fund that is expected to grow proportional to population growth and increased residential and non-residential square footage associated with future development under the GPU. Furthermore, RR FP-1 and policies in the Land Use Element and Public Services Element of the GPU would ensure adequate protection of public health and safety as they relate to fire protection and emergency services. Therefore, the GPU PEIR concluded that impacts related to fire protection and emergency services and facilities would be less than significant.

Proposed Project Impact Analysis

The provision of new or physically altered government facilities for fire protection is typically associated with unplanned population growth or new residential development. As described in Chapter 3, Project Description, the proposed project would include the demolition of existing South Coast Plaza Village buildings and the redevelopment of approximately 17.2 acres with approximately 1,583 residential units, 80,000 square feet of retail space, 300,000 square feet of office space, and approximately 7.5 acres of publicly accessible open space and common areas. As such, construction and operation of the proposed project would increase demand for fire protection and emergency medical services over existing conditions. However, as discussed in Section 4.10, Population and Housing, of this Supplemental EIR, the proposed project would be consistent with the land use designations proposed in the GPU PEIR; thus, no new substantial unplanned growth would occur that was not previously analyzed in the GPU PEIR.

Another factor in evaluating the need for new or altered fire stations is based on response times and related travel distance from a station to an incident. As described above, OCFA operates 10 fire stations within the City, five of which are within 4 miles of the project site. The first responding station, Fire Station 76, is approximately 0.7 mile east of the project site, and the second responding station, Fire Station 77, is approximately 2.0 miles northwest of the project site. The calls for service from the additional population and employment at the project site could result in an increase in response times from these fire stations. However, OCFA fire protection equipment and staffing may be augmented by the City, as needed, through the 10-year cash contract with OCFA that is valid until 2030, which can be extended at the City's discretion. This contract is

funded by the City's general fund and the required fire facilities fee for construction of buildings over two stories in height.

Furthermore, the proposed project would demolish buildings associated with the South Coast Plaza Village commercial center, which was constructed pursuant to fire code standards of the early 1970s and develop new buildings consistent with the latest fire codes, which are more stringent than those of the early 1970s, thereby improving the fire safety of the project site compared to existing conditions and support a reduction in fire service needs. Specifically, the latest fire codes provide building standards that increase fire resistance and regulates minimum fire safety requirements for new and existing buildings, facilities, storage, and processes, including the storage and handling of hazardous materials, which would help decrease the number of service calls and demand for fire services. Additionally, the proposed project would be required to comply with OCFA's Fire Prevention Guideline B-09 related to access driveways, access walkways to and around buildings, water supply, and siting of hydrants consistent with the CFC and CBSC. Similar to Impact 5.11-1 in the GPU PEIR, following compliance with RR FP-1 and the policies identified above, as well as payment of applicable fees to the City's general fund towards fire protection facilities, the proposed project's impacts on fire protection services would be less than significant.

For the reasons aforementioned, the proposed project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be less than significant with implementation of RR FP-1 and GPU policies. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold FP-1 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold FP-1 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

PP-1: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios and response times or other performance objectives for police protection services? *[GPU PEIR Impact 5.14-2]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to Impact 5.14-2 in the GPU PEIR, buildout of the GPU would involve development of up to 36,261 housing units and 5,849,220 square feet of non-residential development resulting in a total of 360,077 residents and 170,416 jobs. Impact 5.14-2 of the GPU PEIR identifies a substantial increase in residents and employees, which would result in an increase in demand for police protection services. Accordingly, the GPU PEIR identified the need to hire additional officers to accommodate growth. However, the GPU PEIR acknowledged that the hiring of additional officers would depend on the Santa Ana Police Department's assessed needs based

on the growing number of calls for service or decreases in average response times in the future and that funding to accommodate the additional demand would be available through grants, special revenue funds, and the City's general fund. The GPU PEIR also acknowledged that, as part of the project review process for future development in the City, the Santa Ana Police Department may require project design features to be incorporated as conditions of approval to improve on-site security and address the Santa Ana Police Department's service standards. Furthermore, policies in the Land Use Element and Public Services Element of the GPU would ensure adequate protection of public health and safety and police protection services. Therefore, the GPU PEIR concluded that impacts related to police protection services would be less than significant.

Proposed Project Impact Analysis

The provision of new or physically altered government facilities for police protection is typically associated with unplanned population growth or new residential development. As described in Chapter 3, Project Description, the proposed project would include the demolition of existing South Coast Plaza Village buildings and the redevelopment of approximately 17.2 acres with approximately 1,583 residential units, 80,000 square feet of retail space, 300,000 square feet of office space, and approximately 7.5 acres of publicly accessible open space and common areas. As discussed in Section 4.10, Population and Housing, of this Supplemental EIR, the proposed project would be consistent with the land use designations proposed in the GPU PEIR; thus, no new substantial unplanned growth would occur that was not previously analyzed in the GPU PEIR. Nonetheless, this anticipated growth generated by the proposed project would increase service calls but is expected to create the typical range of police service calls, which may relate to crime and safety issues during project construction (e.g., theft of building materials and construction equipment and vandalism) and during project operation (e.g., vehicle burglaries, thefts, commercial shoplifting, and disturbances).

As described in Impact 5.14-2 in the GPU PEIR, the Santa Ana Police Department would review and approve the final site plans to ensure that CPTED measures are incorporated into the proposed project's design pursuant to the City's GPU Policy PS-2.1. These CPTED measures may include, but not be limited to, the provision of low-intensity security lighting, security cameras, controlled access to buildings, and on-site security personnel. Similar to Impact 5.14-2 in the GPU PEIR, the proposed project would generate revenues for the City's general fund (in the form of property taxes, sales tax, etc.) that could be used for the provision of new police facilities in the City, such as the planned Santa Ana Police Department substation proposed as part of the Related Bristol Specific Plan Project, which would be located immediately east of the project site; refer to Project No. 10 in Table 4-1: List of Related Projects, in Chapter 4, Environmental Analysis. Therefore, through compliance with the policies identified above and the proposed project's contribution to the City's general fund, the proposed project's impacts on police protection services would be less than significant.

For the reasons aforementioned, the proposed project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold PP-1 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold PP-1 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

SS-1: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios and response times or other performance objectives for school services? *[GPU PEIR Impact 5.14-3]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to Impact 5.14-3 in the GPU PEIR, buildout of the GPU would involve an additional 36,261 housing units that would result in an increase in population, which would lead to an increase in the City's student population. However, the analysis of Impact 5.14-3 determined that the SAUSD would have capacity to accommodate future students resulting from buildout of the GPU. In addition, the GPU PEIR acknowledged that if and when SAUSD needs to expand or construct new facilities to accommodate growth generated by buildout of the GPU, funding for new schools would be obtained from the fee program pursuant to SB 50 and state and federal funding programs and that, pursuant to California Government Code Section 65996, payment of school fees is deemed to provide full and complete school facilities mitigation. Furthermore, RR SS-1 and policies in the Land Use Element and Public Services Element of the GPU would ensure adequate provision of school services. Therefore, the analysis of Impact 5.14-2 in the GPU PEIR concluded that impacts related to school services would be less than significant.

Proposed Project Impact Analysis

As described in Chapter 3, Project Description, the proposed project would include the demolition of existing South Coast Plaza Village buildings and the redevelopment of approximately 17.2 acres with approximately 1,583 residential units, 80,000 square feet of retail space, 300,000 square feet of office space, and approximately 7.5 acres of publicly accessible open space and common areas. Based on the student generation rates presented in Table 4.11-4: Santa Ana Unified School District Student Generation Rates and the project's proposed development of 1,583 residential units, the proposed project would have the potential to generate approximately 307 new elementary school students, 176 new intermediate school students, and 226 new high school students, for a total of 709 new students, as shown in Table 4.11-5: Number of New Students as a Result of the Proposed Project.

Table 4.11-5: Number of New Students as a Result of the Proposed Project

School Levels	Generation Rate (Students per Dwelling Unit)	Project-Generated Students	Existing Capacity	Remaining Capacity
Elementary School (K-5)	0.1937	307	366	59
Intermediate School (6-8)	0.1111	176	1,002	826
High School (9-12)	0.1427	226	535	309
Total		**709**	**1,903**	**1,194**

Source: Santa Ana Unified District, 2022, Residential and Commercial/Industrial Development School Fee Justification Study, available at: https://www.sausd.us/cms/lib/CA01000471/Centricity/Domain/113/SantaAnaUSD_FS_2122_Fn.pdf.

As shown in Table 4.11-5: Number of New Students as a Result of the Proposed Project, all three SAUSD schools serving the project site have enrollment capacity to serve the proposed project at buildout. In the event that Thomas Jefferson Elementary School reaches capacity in the future, other SAUSD elementary schools (e.g., John Adams, Greenville, and Taft located within two miles of the project site) have capacity to serve the proposed project at buildout, as forecasted in Table 5.14-13 of the GPU PEIR. In addition, the proposed project would be required to pay developer/impact fees pursuant to SB 50, which would further reduce potential impacts to school services. Pursuant to California Government Code Section 65995, payment of development fees would provide full and complete mitigation of school impacts.

For the reasons aforementioned, the proposed project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be less than significant with implementation of RR SS-1 and GPU policies. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold SS-1 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold SS-1 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

LS-1: ***Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered library facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios and response times or other performance objectives for library services?*** *[GPU PEIR Impact 5.14-4]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to Impact 5.14-4 in the GPU PEIR, buildout of the GPU would involve additional development of up to 36,261 housing units and 5,849,220 square feet of non-residential

development resulting in a total of 360,077 residents and 170,416 jobs. Impact 5.14-1 of the GPU PEIR identifies a substantial increase in residents and employees would result in an increase in demand for library services. The GPU PEIR determined that the City's existing library space is inadequate to meet the needs of the City. In order to meet the demands of the buildout of the GPU, funding would be required to provide the additional resources to meet the demand factors for the City. However, the GPU PEIR acknowledged that funding for library services comes primarily from the property tax revenue; state, federal, or government aid, as well as library fines and fees collected from patrons, and that as development occurs, property tax revenue should grow proportionally with the property tax collections. The GPU PEIR also acknowledged that with access to online resources, including eBooks and audiobooks that are available on the libraries' system, impacts would be less than significant. Furthermore, RR LS-1 and policies in the Land Use Element and Community Element of the GPU would ensure adequate provision of library services to the City. Therefore, the GPU PEIR concluded that impacts related to library services would be less than significant.

Proposed Project Impact Analysis

The provision of new or physically altered library facilities is typically associated with unplanned population growth or new residential development. As described in Chapter 3, Project Description, the proposed project would include the demolition of existing South Coast Plaza Village buildings and the redevelopment of approximately 17.2 acres with approximately 1,583 residential units, 80,000 square feet of retail space, 300,000 square feet of office space, and approximately 7.5 acres of publicly accessible open space and common areas. As discussed in Section 4.10, Population and Housing, of this Supplemental EIR, the proposed project would be consistent with the land use designations proposed in the GPU PEIR; thus, no new substantial unplanned growth would occur that was not previously analyzed in the GPU PEIR. Nonetheless, this anticipated growth generated by the proposed project would increase the demand for library services in the City. However, the proposed project's residential units would likely have internet access capabilities, and many of the commercial spaces (e.g., which may include coffee shops, restaurants, etc.) would likely be equipped with internet access, which would provide access to many of the same resources provided by the City's libraries, to reduce the potential increased demand for library services and resources as result of the proposed project. As with the analysis of Impact 5.14-4 in the GPU PEIR, through compliance with the policies identified above and the payment of the residential development tax and property taxes, which would contribute to the City's general fund that could potentially be used for the expansion of the existing libraries or construction of new library facilities, the proposed project's impacts on library services would be less than significant.

For the reasons aforementioned, the proposed project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be less than significant with implementation of GPU policies. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold LS-1 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold LS-1 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

4.11.6 CUMULATIVE IMPACTS

IMPACT ANALYSIS

Fire Protection and Emergency Services

GPU PEIR Impact Summary

According to the GPU PEIR, the extent of analysis of cumulative impacts for fire protection and emergency services is contiguous with the service area boundaries of OCFA. The GPU PEIR did not identify any significant cumulative impacts related to fire protection and emergency services.

Proposed Project Impact Analysis

As indicated in Chapter 4, Environmental Analysis, the 32 related projects propose varying levels of development, redevelopment, or modifications to existing land uses or structures in the project vicinity.[10] Development of the GPU buildout, in combination with the related projects based on the geographic context, has the potential to increase demand for OCFA services for fire protection. Specifically, twenty of the 32 related projects (Related Project Nos 1 through 20) are located within the City boundaries and are within four miles of the project site. As such, these 20 related projects would have the potential to generate additional demand for OCFA services from the five City-owned fire stations located within approximately 4 miles of the project site, including Stations 76 and 77, which are the first and second responding stations, respectively, to the project site. However, buildout of the GPU and the related projects would be reviewed by the City and/or OCFA prior to permit approval to ensure that all new development implement fire protection design features pursuant to the CFC and CBSC to reduce potential fire hazards. In addition, each related project proposing buildings over two stories in height would be required to pay a fire facilities fee, which could potentially be used for the expansion of existing fire stations or construction of new fire protection facilities. Further, as disclosed in the GPU PEIR, additional fire vehicles, staff, equipment, and expansion of existing facilities would be funded by the 10-year cash contract with OCFA that is valid until 2030. Therefore, buildout of the GPU and related projects would have less than significant cumulative impacts associated with fire protection and emergency services.

As discussed under Threshold FP-1, the proposed project would be consistent with the land use designations evaluated in the GPU PEIR; thus, no new substantial unplanned growth would occur that was not previously analyzed in the GPU PEIR. Further, as described under Threshold FP-1, project implementation would improve the fire safety of the project site compared to existing conditions and adhere to OCFA's Fire Prevention Guideline B-09. The proposed project would also contribute the appropriate payment of the fire facilities fee, residential development tax, and property taxes, which would contribute to the City's general fund that could potentially be used for the expansion of existing fire stations or construction new fire protection facilities. Therefore, the proposed project's contribution to cumulative impacts associated with fire protection and

[10] Twenty of the 32 related projects are located within the City of Santa Ana, and thus, are included as part of the GPU buildout.

emergency services would not be cumulatively considerable, and therefore, cumulative impacts would be less than significant.

Police Protection

GPU PEIR Impact Summary

According to the GPU PEIR, the extent of analysis of cumulative impacts for police protection services is contiguous with the service area of the Santa Ana Police Department, which is the City of Santa Ana. The GPU PEIR did not identify any significant cumulative impacts related to police protection services.

Proposed Project Impact Analysis

Buildout of the GPU and the 20 related projects within the City of Santa Ana would have the potential to generate additional demand for police protection services by the Santa Ana Police Department. However, as part of the development project review process, the Santa Ana Police Department would review and approve the final site plans for GPU buildout and each related project within the City to ensure that CPTED measures are incorporated into the design of each project pursuant to the City's GPU Policy PS-2.1. In addition, GPU buildout and each related project within the City would generate revenues to the City's general fund (in the form of property taxes, sales tax, etc.) that could be applied toward the provision of new police facilities and related staffing in the City, such as the planned Santa Ana Police Department substation proposed as part of the Related Bristol Specific Plan Project within the Santa Ana Police Department's Southcoast District. Accordingly, through compliance with the GPU policies identified above and the respective contributions to the City's general fund, buildout of the GPU and the related projects within the City would have less than significant cumulative impacts to police protection.

As discussed under Threshold PP-1, the proposed project would not result in substantial unplanned population growth that was not previously analyzed in the GPU PEIR. Design of the proposed project would be reviewed and approved by the Santa Ana Police Department to implement CPTED measures, and the project would generate revenues for the City's general fund (in the form of property taxes, sales tax, etc.) that could be used for the provision of new police facilities in the City. Therefore, the proposed project's contribution to cumulative impacts associated with police protection services would not be cumulatively considerable, and therefore, cumulative impacts to police protection services would be less than significant.

School Services

GPU PEIR Impact Summary

According to the GPU PEIR, the extent of analysis of cumulative impacts for school services is contiguous with the SAUSD, Tustin Unified School District, Garden Grove Unified School District, and Orange Unified School District (OUSD). The GPU PEIR did not identify any significant cumulative impacts related to school services.

Proposed Project Impact Analysis

The geographic context for the analysis of cumulative impacts to school services is the SAUSD boundaries and OUSD boundaries, as buildout of the GPU and related projects would not be within the boundaries of the Tustin Unified School District and Garden Grove Unified School District. The SAUSD boundaries encompass the locations of 25 of the 32 related projects (Related Project Nos. 1 through 20, 23, and 29 through 32); however, only 10 of the related projects are within the current attendance boundaries of the schools serving the project site, and only Related

Project No. 10 (Related Bristol Specific Plan Project) involves the development of residential uses. Related Project No. 10 was estimated to generate approximately 1,678 additional students. In combination with the proposed project's 709 students, a total of 2,387 additional students would result from the related projects within the attendance boundary of the schools currently serving the project site.

Buildout of the GPU and related projects within the boundaries of SAUSD and OUSD have the potential to result in the need for additional school resources. However, cumulative development would be subject to all applicable laws, ordinances, and regulations in place for school services. Further, the SAUSD and OUSD can redistribute students as necessary to all the schools within the district boundaries. Based on the GPU PEIR, the SAUSD has a capacity of 69,919 students within its district with an anticipated enrollment of 57,009 students by GPU buildout in 2040 and a remaining capacity of 12,910 students.[11] According to the Fee Justification Study completed for OUSD, facilities capacity exceeds student enrollment at the elementary school and middle school levels while student enrollment exceeds facilities capacity at the high school level in school year 2022/2023. OUSD would need to expand existing high school facilities in order to accommodate the projected high school students.[12] Similar to SAUSD, OUSD would obtain funding for new schools from the fee program pursuant to SB 50 and state and federal funding programs. Therefore, buildout of the GPU and related projects would have less than significant cumulative impacts related to school services.

As discussed in Section 4.10, Population and Housing, of this Supplemental EIR, the proposed project would be consistent with the land use designations proposed in the GPU PEIR; thus, no new substantial unplanned growth would occur that was not previously analyzed in the GPU PEIR. Therefore, the remaining capacities of SAUSD and OUSD would be adequate to accommodate the students generated by buildout of the GPU, including the proposed project. Additionally, the proposed project would be required to pay developer/impact fees pursuant to SB 50. Pursuant to California Government Code Section 65995, payment of development fees would provide full and complete mitigation of school impacts. As such, the proposed project's contribution to cumulative impacts associated with school services would not be cumulatively considerable, and therefore, cumulative impacts to school services would be less than significant.

Library Services

GPU PEIR Impact Summary

According to the GPU PEIR, the extent of analysis of cumulative impacts for library services is contiguous with the boundaries of the Santa Ana Public Library System (i.e., the City of Santa Ana). The GPU PEIR did not identify any significant cumulative impacts related to library services.

Proposed Project Impact Analysis

The geographic context for the analysis of cumulative impacts to library services is the City boundaries, comprising the area served by the Main Library and the Newhope Library Learning Center. Buildout of the GPU and the related projects within the City would potentially increase the need for library services. However, only the projects that involve the development of residential uses would generate additional demand for library services, which includes three of the 20 related projects (Related Project Nos. 1, 2, and 10). The residential units developed by buildout of the

[11] City of Santa Ana, 2021, General Plan Update PEIR Table 5.14-13, available at: https://general-plan-santa-ana-ca.proudcity.com/other-resources/environmental-documents/.

[12] Santa Ana Unified District, 2022, Residential and Commercial/Industrial Development School Fee Justification Study, available at: https://www.sausd.us/cms/lib/CA01000471/Centricity/Domain/113/SantaAnaUSD_FS_2122_Fn.pdf.

GPU and the three related projects are anticipated to have internet access capabilities, which would provide access to many of the same resources provided by the City's libraries, to reduce the potential increased demand for library services and resources. In addition, cumulative development within the City with a residential component would be required to comply with RR LS-1 and the policies identified above for the payment of the residential development tax and property taxes, which would contribute to the City's general fund that could potentially be used for the expansion of the existing libraries or construction new library facilities. Therefore, GPU buildout and the related projects within the City that include a residential component would have less than significant cumulative impacts on library services.

As discussed under Threshold LS-1, the proposed project would not result in new substantial unplanned growth that was not previously analyzed in the GPU PEIR. The proposed project's residential units would have access to internet service, providing many of the same resources provided by the City's libraries. Project implementation would also result in the payment of the residential development tax and property taxes, which could potentially be used for the expansion of the existing libraries or construction new library facilities. Therefore, the proposed project's contribution to cumulative impacts associated with library services would not be cumulatively considerable, and therefore, cumulative impacts to library services would be less than significant.

MITIGATION MEASURES

Cumulative impacts to public services, including fire protection and emergency services, police protection, school services, and library services, would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Cumulative impacts to public services were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

4.12 RECREATION

This section evaluates the potential impacts to parks and recreational facilities that would result from implementation of the proposed project. This section presents the regulatory setting, environmental setting, methodology for determining potential impacts, impact analysis, proposed measures to mitigate significant impacts, and an analysis of potential cumulative impacts pertaining to parks and recreation resources. As the project pursues buildout of part of the City's GPU Land Use Plan, which was analyzed in the GPU PEIR, this section compares the project's impacts with the impacts identified in the GPU PEIR.

4.12.1 REGULATORY FRAMEWORK

STATE

Quimby Act

The Quimby Act, Government Code Section 66477, authorizes cities and counties to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities. The Quimby Act was amended in 1982 by AB 1600, which requires agencies to clearly show a reasonable relationship between the public's need for the recreation facility or parkland, and the type of development project upon which the fee is imposed. Cities and counties with a high ratio of park space to inhabitants can set a standard of up to five acres per 1,000 people for new development. Cities and counties with a lower ratio can require the provision of up to three acres of park space per 1,000 people. The calculation of a city or county's park space to population ratio is based on a comparison of the population count of the last federal census to the amount of city/county-owned parkland.

LOCAL

City of Santa Ana Municipal Code

Chapter 34, Article 8, establishes regulations for the dedication of land for parks and recreational purposes in order to meet the goals and policies of the City's General Plan. Specifically, Section 34-201 requires the dedication of land for park and recreational purposes as a condition of approval of a final subdivision map for subdivisions containing more than fifty residential parcels according to the standards contained in Section 34-204. Section 34-204 establishes the amount of land to be dedicated for parks and recreational purposes based on dwelling unit type, which would require 0.005 acres or 209.1 square feet of dedicated land for parks and recreational purposes per dwelling unit for multi-family developments.

Chapter 35, Article 4, Section 35-108 establishes that the construction of park and recreation facilities shall be sufficient to provide two acres of such facilities per 1,000 residents. In addition, Section 35-108 requires that fees collected shall be placed in the "Park Acquisition and Development Fund" and be used for the acquisition, construction and renovation of park and recreation facilities. Moneys in this fund shall be expended for the acquisition, construction and renovation of park and recreation facilities. In the event the city meets the standard of two (2) acres of such facilities per one thousand (1,000) population, and will meet such criterion following all developments for which fees have been collected, any moneys remaining in such fund may be used for renovation of the city's existing parks.

Chapter 35, Article 4, Section 35-110 states that any person adding net residential units or converting apartments to condominiums in the City of Santa Ana shall pay fees to the City for the

purpose of preserving an appropriate balance between the demand by residents for use of park and recreational facilities and the availability of such park and recreational facilities and to preclude residential development which would create an excess demand on such facilities. Fees are imposed under police power and fee amounts are determined by resolution of the City Council.

Chapter 35, Article 4, Section 35-111 requires that the payment of fees for the addition of net residential units shall be due and payable prior to the issuance of a building permit for any construction which adds net residential units.

City of Santa Ana General Plan Update

The City's GPU includes regulatory requirements (RR), goals, and policies related to parks and recreational facilities. The following RRs, goals and policies from the Santa Ana GPU are applicable to the proposed project.

Regulatory Requirements

RR REC-1: Residential development associated with the General Plan Update will be required to comply with the provisions of the Municipal Code Chapter 35, Article IV (Residential Development Fee). Residential development is mandated to pay fees, dedicate land in lieu thereof, or a combination of both for the purpose of preserving recreational facilities in the City.

Community Element

Goal CM-1 Recreation and Culture: Provide opportunities for public and private recreation and cultural programs that meet the needs of Santa Ana's diverse population.

- *Policy CM-1.5 Equitable Recreational Spaces*: Promote the development and use of municipal buildings, indoor facilities, sports fields, and outdoor spaces for recreation that serve residents throughout the city, with priority given to areas that are underserved and/or within environmental justice area boundaries.
- *Policy CM-1.6 Recreation on Private Property:* Promote the development and use of privately-owned recreation and entertainment facilities that help meet the needs of Santa Ana residents.
- *Policy CM-1.8 Developer Involvement*: Promote developer participation in the provision of community facilities to meet the recreational needs of residents.

Goal CM-3 Active Living and Well-Being: Promote the health and wellness of all Santa Ana residents.

- *Policy CM-3.8 Underutilized Spaces:* Repurpose underutilized spaces and City-owned vacant land as a strategy to improve community health and increase the number and accessibility of opportunities for health and recreation activities. Prioritize the redevelopment of such sites within environmental justice area boundaries and other areas underserved by parks and recreation opportunities.

Land Use Element

Goal LU-1 Growing Responsibly: Provide a land use plan that improves quality of life and respects our existing community.

- *Policy LU-1.3 Equitable Creation and Distribution of Open Space*: Promote the creation of new open space and community serving amenities in park-deficient areas that keeps pace with the increase in multi-unit housing development, with priority given to those that are

also within environmental justice area boundaries.

- *Policy LU-1.9 Public Facilities and Infrastructure*: Evaluate individual new development proposals to determine if the proposals are consistent with the General Plan and to ensure that they do not compound existing public facility and service deficiencies.

Goal LU-2 Land Use Needs: Provide a balance of land uses that meet Santa Ana's diverse needs.

- *Policy LU-2.3 Supportive Spaces:* Provide a diversity of land uses that support residents, visitors, and businesses, such as open space, areas for community gatherings, and outdoor entertainment venues.
- *Policy LU-2.9 Open Space Needs:* Establish and maintain public open space and recreation requirements for new residential and nonresidential uses to provide sufficient open space and recreational opportunities for Santa Ana residents and visitors.

Goal LU-4 Complete Communities: Support a sustainable Santa Ana through improvements to the environment and a culture of collaboration.

- *Policy LU-4.9 Recreational Amenities:* Encourage public, private, and commercial recreational facilities in areas that are park and open space deficient.

Open Space Element

Goal OS-1, Parks Open Space, and Recreation: Provide an integrated system of accessible parks, recreation facilities, trails, and open space to serve the City of Santa Ana.

- *Policy OS-1.2 Parks and Recreation System:* Provide and support a comprehensive and integrated network of parks, recreation facilities, trails, and open space that is diverse, with a variety of active and passive recreational opportunities.
- *Policy OS-1.3 Park Standard:* Establish and maintain public parks, open space, and recreation requirements for new residential and nonresidential development to provide sufficient opportunities for Santa Ana residents and visitors. Attain a minimum of three acres of land per 1,000 persons residing in the City of Santa Ana.
- *Policy OS-1.4 Park Distribution:* Ensure that all City residents have access to public parks, recreation facilities, or trails in the City of Santa Ana, within a 10-minute walking and biking distance of their homes. Prioritize park provision, programs, and partnerships in park deficient and environmental justice areas.
- *Policy OS-1.5 Park and Open Space Types:* Provide a mix of community, neighborhood, and special use parks, along with greenway corridors, natural areas, and landscape areas, to meet community needs for greenspace, recreation space, social space, and trail connectivity.
- *Policy OS-1.9 New Development:* Require all new development to provide adequate parks and open space, including via parkland dedication or development fees, in order to meet the City's park standard. Ensure that new development includes pedestrian and multi-modal travel ways to promote a quality living environment. For new development within park deficient and environmental justice areas, prioritize the creation and dedication of new public parkland over the collection of impact fees.

Goal OS-2 Healthy, Safe and Inclusive Opportunities: Provide welcoming, inclusive, safe, and healthy parks, recreation facilities, and activities to serve Santa Ana residents regardless of age, ability, or income.

- *Policy OS-2.1 Recreation Variety:* Provide a variety of recreation facilities and activities to meet the diverse needs of the community. Consider needs for indoor and outdoor recreation opportunities, as well as traditional and trending activities.
- *Policy OS-*2.2 *Healthy Parks and Public Spaces*: Invest in and activate parks, recreation facilities and greenspace to support active lifestyles, mental health, youth development, lifelong learning and environmental health benefits that support individual and community wellbeing.
- *Policy OS-2.3 Active Lifestyles:* Invest in parks, trails and programs that support sports, fitness, active transportation, and active lifestyles.
- *Policy OS-2.6 Connections to Nature*: Design and develop parks, greenspace, and trail corridors to support community respite, wellness, and the mental health benefits found in connections to nature.
- *Policy OS-2.12 Park and Facility Character:* Ensure that parks and recreation facilities incorporate placemaking elements that foster social connections and community pride such as art, landscaping, murals, and amenities and facilities that reflect site character and local needs.

Public Services Element

Goal PS-1, Public Facilities: Provide quality and efficient facilities that are adequately funded, accessible, safe, and strategically located.

- *Policy PS-1.5 Community Benefit:* Collaborate with community stakeholders to expand recreational, educational, and cultural opportunities; promote active lifestyles; and maximize community benefit.

Urban Design Element

Goal UD-1, Physical Character: Improve the physical character and livability of the City to promote a sense of place, positive community image, and quality environment.

- *Policy UD-1.3 Delineation of Public Spaces:* Encourage site design that clearly defines public spaces through building placement and orientation.
- *Policy UD-1.5 Attractive Public Spaces*: Encourage community interaction through the development and enhancement of plazas, open space, people places, and pedestrian connections with the public realm.

Goal UD-4, Nodes and People Places: Create notes and urban hubs throughout the city to foster community, education, arts and culture, business activities, and entertainment and establish Santa Ana as a vibrant center.

- *Policy UD-4.1 Intentional Development:* Support development growth in nodes consistent with the City's vision as the dynamic urban center of Orange County.
- *Policy UD-4.3 Activate Open Space*: Ensure architectural and landscape design activates open space as a means to promote community interaction and enhance the aesthetic quality of development.
- *Policy UD-4.4 Vibrant Street Life:* Encourage development within nodes that promotes pedestrian activities, enhanced amenities, and engaging designs that allow for discovery, excitement, and social interaction.

- *Policy UD-4.5 Open Space at Nodes*: Promote creative, multipurpose public space within nodes, major development projects, and people places.

City of Santa Parks Master Plan

The City of Santa Ana Parks Master Plan (PMP) was adopted on May 17, 2022 to guide the City's investment in parks, recreation facilities, trails, open space, programs, and events over the subsequent 10 years. The PMP is intended to provide short-term actions to improve the City of Santa Ana's parks and recreational facilities and achieve the GPU's parkland standard goal of providing 3 acres of parkland for every 1,000 residents by 2045, as the City currently does not meet this parkland standard. To achieve the GPU's 2045 parkland standard goal, the PMP identifies the first step to increase the City's overall parkland to 1.5 acres for every 1,000 residents by 2035. The following goals and policies from the Santa Ana Parks Master Plan are relevant to the proposed project:

Policies and Strategies

Policy 1.2: Increase the amount of parkland in Santa Ana to meet the needs of City residents.

- *Strategy 1.2.a:* Provide parkland at a minimum level of service of 1.5 acres per 1,000 residents.
- *Strategy 1.2.c:* Where feasible, such as in new development or redevelopment areas, strive to provide 2 or 3 acres of parkland per 1,000 residents to serve residents, employees, and visitors.

Policy 1.4: Balance the types of parkland and recreation options provided across the City.

- *Strategy 1.4.b:* Balance needs to provide close-to home recreation opportunities with needs for larger parks that have spaces for specialized and unique recreation options.
- *Strategy 1.4.c:* Select new park sites to support recreation, as well as preserve and interpret the City's natural resources, landmarks, urban tree canopy, and designated historical and cultural features.

Policy 1.6: Implement the park acquisition, design, and development guidelines provided in the PMP to guide the provision of quality parks.

- *Strategy 1.6.a:* Consider unique neighborhood and demographic needs in the design and development of local parks, such as neighborhood parks and pocket parks.
- *Strategy 1.6.b:* Consider the City's brand and identity in the design and development of citywide parks, community parks, urban plazas, and special use facilities.
- *Strategy 1.6.d:* Incorporate the following principles into park design, development, and renovation: Inclusivity, Universal Access, Heritage, Diverse Gathering Places, Comfort and Use, Safety, Recreation Variety, Quality Landscape Design, Park Greening and Native Plantings, Connections to Nature, Sustainability, Functionality, Continuity in Furnishings, Impact, Flexibility, and Adaptability.
- *Strategy 1.6.e:* Ensure that all parks and recreation facilities incorporate placemaking elements that foster social connections and community pride such as art, landscaping, murals, and amenities and facilities that reflect site character and local needs.
- *Strategy 1.6.f:* Create a safe environment through implementation of Crime Prevention through Environmental Design principles in public spaces.

- *Strategy 1.6.g:* Coordinate with the Community Development Agency to integrate art in parks, in recreation facilities, and along trails.

Policy 2.1: Distribute parkland to support equitable park access throughout Santa Ana.

- *Strategy 2.1.a:* Ensure City residents have access to public or private parks, recreation facilities, or trails in the City of Santa Ana within 10-minute walking and cycling distance of home.
- *Strategy 2.1.b:* Where feasible, strive to provide access to City parkland within a 10-minute walk (1/2 mile) from home.
- *Strategy 2.1.c:* Renovate existing pocket parks and develop new pocket parks to provide more neighborhood-serving parks amenities that attract residents from 1/2 mile (rather than the current standard of ¼ mile).
- *Strategy 2.1.d:* Ensure that all new development effectively integrates parks and trails. For new development within park deficient and environmental justice areas, prioritize the creation and dedication of new public parkland over the collection of impact fees.

Policy 2.2: Prioritize park provision, programs, and partnerships in park deficient and environmental justice areas.

- *Strategy 2.2.b:* Prioritize the development of new parks in unserved areas characterized by a "high severity of need." These tend to be environmental justice areas or Land Use Element focus areas that are higher density, more diverse, and with a greater proportion of residents living below the poverty level.
- *Strategy 2.2.g:* Develop creative and flexible solutions to provide greenspace and recreation activities in neighborhoods where traditional parks are not feasible. Encourage public, private, and commercial recreational facilities in areas that are park deficient.

Policy 2.4: Provide diverse, welcoming, inclusive parks, facilities, and programs to support equitable park experiences.

- *Strategy 2.4.a:* Provide parks, recreation facilities, and programs that reflect the demographics of the Santa Ana community, including diverse races, ethnic groups, identities, family configurations, abilities, and incomes.
- *Strategy 2.4.b:* Design new and renovate existing parks, recreation facilities, and trails to provide access to residents of varying abilities, including people with special needs. Consider multigenerational groups and people with mobility issues, sight and hearing impairments, allergies, autism spectrum disorders, and other special needs.
- *Strategy 2.4.c:* Develop and renovate parks to ensure these spaces meet or exceed the requirements of the Americans with Disabilities Act. Explore options for the systematic completion of the Americans with Disabilities Act compliance upgrades in Santa Ana's parks.
- *Strategy 2.4.e:* Design and develop parks, greenspace, and trail corridors to support community respite, wellness, and the mental health and stress reduction benefits found in connections to nature.

Policy 4.1: Provide a variety of recreation facilities to meet the diverse needs of the community.

- *Strategy 4.1.b:* Provide a variety of amenities and facilities to support active and passive recreation, indoor and outdoor recreation, as well as traditional and trending activities.

Policy 5.1: Diversify recreation programs, events, and activities to meet the varied needs of the community.

- *Strategy 5.1.a:* Activate parks, recreation facilities, and trails to support active lifestyles, mental health, youth development, lifelong learning and environmental health benefits that support individual and community well-being.

Policy 6.6: Implement best practices to support sustainability, climate resiliency, and green infrastructure in parks.

- *Strategy 6.6.a:* Integrate drought tolerant or native plantings, waterwise irrigation, energy-efficient fixtures, design and maintenance efficiencies, and sustainable development practices to reduce water use and energy consumption.
- *Strategy 6.6.b:* Implement environmental design practices such as integrating and maintaining native plants, additional trees, bioswales, and other natural and green infrastructure into targeted sites to support sustainability, reduced water and maintenance costs, natural resource protection, environmental education/ interpretation, and connections to nature.
- *Strategy 6.6.e:* Encourage the planting of native and diverse tree species in public and private spaces to reduce heat island effect, reduce energy consumption, and contribute to carbon mitigation.

Policy 6.7: Manage parks to support park safety.

- *Strategy 6.7.a:* Ensure the safety of park visitors and staff through facility upkeep, landscaping maintenance, surveillance, recreation and social service programs, and partnerships with public and private entities that address public safety and related issues in parks.

4.12.2 ENVIRONMENTAL SETTING

The City of Santa Ana manages 44 parks, 9 joint-use school sites, and approximately 13 miles of off-street trails for recreational use, all of which support a variety of indoor and outdoor facilities and programs. Additionally, the City will be including the following to its inventory of recreational facilities: Gerardo Mouet Park; 10th and Flower Park, Bristol and Tolliver; improvements to Santa Anita Park and Community Center; and Memorial Park Aquatics Facility. The City's recreational facilities are summarized in Table 4.12-1: Existing Parks and Recreational Facilities in Santa Ana.

As shown in Table 4.12-1, the City's recreational facilities include community-serving parks, neighborhood parks, other parks and facilities, and other resources, which include varying types of parks, urban plazas, centers, the Santa Ana Zoo, Santa Ana Stadium, and joint-use facilities. In total these facilities amount to 515.11 acres of existing parkland facilities and an additional 1.75 acres from two newly funded parks, comprising a total of 516.86 acres of existing and funded parks and recreational facilities.[1] This results in a service ratio of 1.54 acres per 1,000 residents, as reported in the GPU PEIR.

Table 4.12-1: Existing Parks and Recreational Facilities in Santa Ana

Parks and Recreational Facilities	Acres
Public Parks	340.21
Open Space	116
Santa Ana Unified School District Joint-Use Park Facilities	31.78
Walking Trails and Biking Trails	11.66
Sports Facilities	15.46
Total Acres of Existing Public Parks and Recreational Facilities	**515.11**
Funded Future Parks	1.75
Total Acres of Existing and Funded Public Parks and Recreational Facilities	**516.86**

Source: City of Santa Ana, 2021, General Plan Update PEIR, available at: https://general-plan-santa-ana-ca.proudcity.com/other-resources/environmental-documents/.

The project site is located within the South Bristol Street Focus Area, which is identified by the GPU PEIR as an area containing no public parkland and recreational resources. Moreover, the GPU PEIR identifies the project site as a Park Deficient Area (GPU PEIR Figure 5.15-3, Park Deficiency with Overlays). The closest existing park and recreation facilities to the project site within the City are identified in Table 4.12-2: Parks and Recreational Facilities Near the Project Site. As shown, the City currently manages ten existing recreational facilities that provide 166.2 acres of parkland within approximately 3 miles of the project site.

[1] The City's Parks Master Plan (May 2022) states the City includes 371 acres of City parkland at 54 sites. For purposes of this Supplemental EIR, the analysis is using the GPU PEIR for the basis of comparison. Note, the 515.11 acre existing and 516.86 acre full buildout total included in the GPU PEIR comprises the City's open space network of parkland, open space, and landscaped areas. Open space encompasses recreational and green spaces including commercial open space, vacant lands, and manicured landscaped areas. Landscaped areas are open space maintained for community aesthetics and beautification but not for park use.

Table 4.12-2: Parks and Recreational Facilities Near the Project Site

Parks and Locations	Approximate Distance to Project Site	Amenities	Estimated Travel Time from Project Site*	Acres
Bomo Koral Park 900 West MacArthur Boulevard	1.0 mile	Picnic tables, multipurpose fields, pathways, and playground	Walking: 22 minutes Biking: 8 minutes Driving: 3 minutes	10.4
Griset Park** 2500 West MacArthur Boulevard	1.2 miles	Multipurpose field	Walking: 26 minutes Biking: 8 minutes Driving: 4 minutes	6.5
Carl Thornton Park 1801 West Segerstrom Avenue	1.2 miles	Barrier-free playground, ball diamonds, bike trail, multipurpose field, parking stalls, hiking/exercise trail, drinking fountain, lake	Walking: 27 minutes Biking: 7 minutes Driving: 6 minutes	32.7
Segerstrom Triangle 1000 West Hemlock Way	1.4 miles	Grass areas	Walking: 32 minutes Biking: 9 minutes Driving: 4 minutes	1.3
Sandpointe Park 3700 South Birch Street	1.5 miles	Basketball court, tennis courts, pathways, playgrounds, and restrooms	Walking: 32 minutes Biking: 9 minutes Driving: 4 minutes	7.7
Lillie King Park 500 West Alton Avenue	1.6 miles	Picnic tables, fitness court, pathways, multipurpose field, and playground	Walking: 37 minutes Biking: 10 minutes Driving: 4 minutes	10.4
Adams Park 2302 South Raitt Street	1.9 miles	Picnic areas, ball diamond, basketball courts, a multipurpose field and playground	Walking: 42 minutes Biking: 11 minutes Driving: 5 minutes	5.7
Memorial Park 2102 South Flower Street	2.2 miles	Picnic areas, basketball courts, community center, swimming pool, ball diamonds and playground	Walking: 48 minutes Biking: 13 minutes Driving: 6 minutes	16.3
Delhi Park 2314 South Halladay Street	2.6 miles	Soccer mini pitch court, fitness court, basketball court, a multipurpose field, ball diamond and playground	Walking: 59 minutes Biking: 16 minutes Driving: 8 minutes	9.9
Centennial Park 3000 West Edinger Avenue	3.2 miles	picnic areas, basketball courts, ball diamonds, soccer field, football field, a multipurpose field, skate park, and playground	Walking: 1 hour and 12 minutes Biking: 18 minutes Driving: 7 minutes	65.3
			Total Acres	**166.2**

Notes: *Estimated travel times are based on Google Maps distances and mobility options.

**Joint-use with Santa Ana Unified School District

Sources: City of Santa Ana, 2022, City of Santa Ana Parks Master Plan, pages 35, 216-219, available at: https://www.santa-ana.org/parks-master-plan/; Google Maps, https://www.google.com/maps, accessed February 2024; City of Santa Ana, 2024, Parks locations and information, available at: https://www.santa-ana.org/parks-locations-and-information/, accessed March 2024.

4.12.3 THRESHOLDS OF SIGNIFICANCE

The significance thresholds used to evaluate the impacts of the proposed project related to parks and recreation are based on Appendix G of the State CEQA Guidelines. A project would have a significant impact related to parks and recreation if it would:

R-1 ***Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.***

R-2 ***Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.***

4.12.4 METHODOLOGY

The following analysis focuses on determining whether implementation of the proposed project would result in substantial adverse physical impacts associated with the potential need for expansion of existing parks and recreational facilities or construction of new facilities and the potential increase in use of existing parks and recreation facilities. The need for additional facilities and potential increase in use of existing facilities is determined by considering the adequacy of existing parks and recreational facilities, estimating the number of new residents that would be generated by implementation of the proposed project, and assessing whether (1) existing and planned public parks and recreational facilities would be sufficient to adequately serve the additional residents of the proposed project; (2) new or expanded facilities would need to be constructed, the construction of which would cause significant environmental impacts; or (3) implementation of the proposed project would result in substantial physical deterioration or accelerated deterioration of parks and recreational facilities.

4.12.5 PROJECT IMPACTS

R-1 ***Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*** *[GPU PEIR Impact 5.15-1]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to GPU PEIR Impact 5.15-1, full buildout of the GPU would generate additional residents that would increase the use of existing park and recreational facilities such that substantial physical deterioration of these facilities could occur or be accelerated. The projected full buildout of the GPU would result in an estimated population growth of up to 96,855 additional residents (i.e., a population increase from 334,774 to 431,629). Existing and funded parks and recreational facilities amount to 516.86 acres, and without acquisition of new parkland, the population growth related to buildout of the GPU would equate to 1.2 acres per 1,000 residents. This service ratio is 0.8 acres below the City's municipal code parkland standard of 2 acres per 1,000 residents and represents a parkland deficiency of approximately 346.41 acres. Further, the GPU full buildout parkland service ratio would also not meet the GPU's parkland standard of 3 acres per 1,000 residents. Without provision of new parks and recreational facilities, buildout in accordance with the GPU would therefore exacerbate an existing shortage of recreational facilities. Although required park fees for development could assist with funding new parks and improvements, because the City is essentially fully developed, there is a lack of available land

and lack of land designated as Open Space within the City to develop new parks or expand existing facilities. The increased demand on existing parks could result in physical deterioration of these resources.

Moreover, based on the geographic analysis of park deficiencies in the City, residential development accommodated within the focus areas, including the South Bristol Street Focus Area, which contains no parks and recreational facilities, would be expected to further exacerbate park deficiencies within nearby areas. The GPU PEIR identified Mitigation Measure REC-1 to monitor new residential development within the Dyer/55 Fwy Focus Area, which is not applicable to the proposed project. Nonetheless, GPU PEIR Impact 5.15-1 concluded that given the existing park deficiencies and scale of envisioned development in park deficient areas, buildout of the GPU would result in significant and unavoidable impacts.

Proposed Project Impact Analysis

The project site is identified as being within a Park Deficient Area in the GPU PEIR. As described in Chapter 3, Project Description, the proposed project would redevelop an approximately 17.2-acre site with a mix of residential and commercial uses, and is conservatively estimated to provide housing for 3,815 individuals. Based on the GPU long-range goal of providing 3 acres per 1,000 residents, the proposed project could result in a demand of approximately 11.4 acres of parkland, which equates to approximately 66 percent of the project site.

The proposed project would meet a significant portion of this increased need through provision of 7.5 acres of publicly accessible open space and common areas, which equates to providing 2 acres of publicly accessible open space per 1,000 residents. These areas include active spaces, such as walkways and a fitness loop, and passive open spaces including pocket parks and gathering areas for outdoor programming. Additionally, the proposed project would provide 6.3 acres of private outdoor and amenity spaces, including outdoor balconies and patios, pools and spas, communal gathering spaces, etc. The proposed project provides a combined 13.8 acres, or approximately 80 percent of the 17.2-acre project site, of public and private outdoor and recreational space to the residents, which is anticipated to meet the potential park and recreation needs of the project residents.

However, the proposed project residents may also use the park and recreational facilities near the project site, which are identified in Table 4.12-2: Park and Recreational Facilities Near the Project Site. As shown, ten parks and recreational facilities with a total of 166.2 acres are located within an approximately 3-mile radius of the project site. The nearest park facilities are Bomo Koral Park, Griset Park, and Cal Thornton Park, which are located between 1 to 1.2 miles from the project site. Six of the parks are within a 10-minute biking distance of the project site, which is consistent with the GPU Open Space Element Policy OS-1.4, to "ensure that all City residents have access to public parks, recreation facilities, or trails in the City of Santa Ana, within a 10-minute walking and biking distance of their homes."

The California State Parks[2] establishes frequencies of park visitorship in the Southern California region based on average travel times. Travel times for walking, biking, and driving are provided in Table 4.12-3: Average Travel Time to Outdoor Recreation Areas in Southern California. As shown, 31.5 percent of people surveyed typically walk up to 20 minutes to reach their most visited outdoor recreation areas. 51.8 percent of which typically bike 10 minutes or less to reach their most visited outdoor recreation areas. Of those that prefer to drive, 20.1 percent typically drove 5 minutes or less, 17.2 percent typically drove between 6-10 minutes, 20.8 percent typically drove

[2] California State Parks, 2014, Survey on Public Opinion and Attitudes on Outdoor Recreation in California 2012 Complete Findings, available at: https://www.parks.ca.gov/pages/1008/files/spoa_2012_january_2014.pdf.

between 11-20 minutes, and 31.3 percent typically drove between 21-60 minutes to reach their most visited outdoor recreation areas.

Table 4.12-3: Average Travel Time to Outdoor Recreation Areas in Southern California

Travel Mode	≤ to 5 min.	6-10 min.	11-20 min.	21-60 min.	>60 min.
Walking	27.5%	20.3%	31.5%	18.9%	1.8%
Biking	9.2%	42.6%	28.9%	17.5%	2.4%
Driving	20.1%	17.2%	20.8%	31.3%	10.6%

Note: Average times for walking and driving are based on outdoor recreation areas in Southern California. Average times for biking are based on respondents across the State of California.

Source: California State Parks, 2014, Survey on Public Opinion and Attitudes on Outdoor Recreation in California 2012 Complete Findings, available at: https://www.parks.ca.gov/pages/1008/files/spoa_2012_january_2014.pdf.

Based on the 2014 California State Parks Survey on Public Opinion and Attitudes on Outdoor Recreation in California, 16.7 percent of people surveyed in Southern California indicated a frequency of two or more park visits per week, 13.8 percent indicated a frequency of about one park visit per week, 20.6 percent indicated a frequency of one or two park visits per month, 24.4 percent indicated a frequency of several park visits a year, and 15.1 percent indicated a frequency of one or two park visits per year.

Based on the frequency of park visits reported in the 2014 California State Parks Survey on Public Opinion and Attitudes on Outdoor Recreation in California and the estimated number of project residents at full occupancy (3,815 residents), it is estimated that the proposed project would generate the following estimated park visitation frequencies: 637 additional park visits/users two or more times per week; 526 additional park visits/users per week; 786 additional park visits/users one or two times per month; 931 additional visits/users several times a year; and 576 additional visits/users one or two times per year. These visits are anticipated to be largely divided between the park and recreational facilities on the project site as well as the nearby park facilities identified in Table 4.12-2: Parks and Recreational Facilities Near the Project Site.

The proposed project would meet the City's PMP short-range goal of providing 1.5 acres of parkland per 1,000 residents and the proposed project would comply with applicable municipal code requirements and RR REC-1 requiring residential development fees for the acquisition, construction, and renovation of park and recreation facilities. As mentioned, to meet the GPU policy of providing 3 acres of public park or recreational space per 1,000 residents, the proposed project would need to provide an additional 3.9 acres of public parkland beyond the 7.5 acres currently proposed (for a total of 11.4 acres). As such, the proposed project would not fully meet the GPU's performance standard for parkland. However, the proposed project would provide approximately 6.3 acres of private outdoor and amenity spaces for the project residents for a combined total of 13.8 acres of open space. Nevertheless, it can be anticipated that some project residents would visit other parks in the City to meet a portion of their recreational needs. Such additional park visits may result in physical deterioration of recreational facilities due to the increased foot traffic and usage of park facilities. Such wear on facilities would be expected to contribute to the need for maintenance activities including, but are not limited to: replacement or fixing of picnic area tables and trash receptacles; painting and equipment maintenance of basketball, tennis, swimming, and other sports facilities; upkeep on playfield, trail, and landscaped areas; and maintenance of restroom and parking areas.

The project would contribute additional public park and recreation space to the City's available public parkland and recreational spaces at a ratio of 2 acres per 1,000 residents, which is higher

than the 1.2 ratio assessed for the GPU buildout, in the GPU PEIR. Further, the project residents would be anticipated to use the onsite public and private recreational spaces, which would lessen the rate of the deterioration on the City's existing park facilities. Additionally, the proposed project would contribute to additional park and recreation space in the City through the contribution of fees. The project would be required to pay applicable fees pursuant to Municipal Code Section 35-108 of Chapter 35, Article 4, and Sections 35-110 and 35-111 of Chapter 35, Article 4, in accordance with RR REC-1, to be used towards the future expansion or renovation of parks and recreational facilities in the City. Moreover, the project would provide tax revenues to the City, including contributions to the applicable community facilities district, for park maintenance that would help offset the additional deterioration occurring from the project residents. Taken together, the project's proposed 13.8 acres of outdoor and recreational space (comprised of 7.5 acres of publicly accessible open space and 6.3 acres of private outdoor and amenity spaces), combined with the payment of applicable fees and tax revenues serve to reduce potential impacts discussed in the GPU PEIR. Regardless, since the proposed project would not fully meet the GPU policy of providing 3 acres of parkland and recreation facilities per 1,000 residents, it is reasonably foreseeable that the proposed project would result in the increased use of existing parks and recreational facilities in a manner that results in accelerated substantial physical deterioration of the facilities.

As discussed in Impact 5.15-1 of the GPU PEIR, the City of Santa Ana is essentially fully built out and there is a lack of available vacant land to develop substantial new parks or expand existing facilities. Therefore, as identified in the GPU PEIR, there would be no feasible mitigation measures that would be able to reduce this significant impact, or the project's contribution thereto, to a less than significant level. As such, impacts would be significant and unavoidable, which is consistent with the findings of the GPU EIR.

MITIGATION MEASURES

As discussed in Impact 5.15-1 of the GPU PEIR, the City of Santa Ana is essentially fully built out and there is a lack of available vacant land to develop substantial new parks or expand existing facilities. Therefore, as identified in the GPU PEIR, there would be no feasible mitigation measures that would be able to reduce this significant impact, or the project's contribution thereto, to a less than significant level.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

While the proposed project would not increase the severity of previously identified significant and unavoidable impacts related to Threshold R-1 disclosed in the GPU PEIR, project level impacts are considered significant. With no feasible mitigation, the proposed project impacts would remain significant and unavoidable.

R-2 Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? *[GPU PEIR Impact 5.15-2]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

As discussed in GPU PEIR Impact 5.15-2, population increases resulting from the GPU implementation would increase recreation demands that would require construction or expansion of recreation facilities that would have potential to result in physical impacts to the environment. The GPU PEIR stated that the City is essentially built-out with very limited vacant land available

to be developed with new recreational opportunities. Some undeveloped land could be improved or properties redeveloped to provide residents with new opportunities, as parks are also a permitted use under other land use designations (e.g., residential land uses), which could result in the development of recreational facilities outside of park-designated parcels.

Therefore, to achieve its stated goal of providing 3 acres of parkland and recreational facilities per 1,000 residents, it is anticipated that the City would build new parks and/or expand existing parks. As the type, location, size, and scale of such potential future park improvements are not known, it is too speculative to evaluate the potential environmental impacts of potential future improvements. However, as noted in the GPU PEIR, subsequent environmental review for future individual park developments would be required. Although construction and/or expansion of new parks and recreation facilities would be subject to GPU policies and implementation actions, regulatory requirements, and future, project-specific environmental review under CEQA, it is still possible that development of such facilities could result in significant, unavoidable impacts. Consequently, the GPU PEIR concluded that impacts from the GPU relating to new and/or expanded recreational facilities would be significant and unavoidable.

Proposed Project Impact Analysis

As described in R-1 above, the proposed project provides 13.8 acres of public and private open space and recreation facilities, including 7.5 acres of public park/recreation and open space facilities. The project-level impacts of development of these recreational amenities are considered part of the impacts of the proposed project as a whole and are analyzed in the respective sections in Chapter 4 of this Supplemental EIR, including air quality, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, transportation, and tribal cultural resources. As analyzed in these sections, the proposed project would not result in significant impacts, with implementation of the identified mitigation measures.

As discussed in R-1, the proposed project would contribute to the City's parkland resources. The proposed project would provide 7.5 acres of public park/recreation and open space for the project's 3,815 residents at maximum buildout, resulting in a ratio of 2 acres per 1,000 residents, which is higher than the 1.2 ratio (based on 516.86 acres for 431,629 residents) assessed in the GPU PEIR for the GPU buildout. Further, the proposed project would be developing this park/recreation and open space in the South Bristol Street Focus Area, an area identified by the GPU PEIR and the PMP that is deficient in public parkland and recreational resources. Additionally, the proposed project would be required to pay applicable fees pursuant to Municipal Code Section 35-108 of Chapter 35, Article 4, and Sections 35-110 and 35-111 of Chapter 35, Article 4, in accordance with RR REC-1, to be used towards the future expansion or renovation of parks and recreational facilities in the City, as well as other applicable community facilities district fees assessed to maintain park facilities.

However, as mentioned, the proposed project's provision of parkland would not fully meet the GPU policy to provide a ratio of 3 acres of parkland for every 1,000 residents. While development of the proposed project would not result in significant unmitigable impacts to the environmental resources identified above, development and operation of future new or expanded recreational facilities may have an adverse physical effect on the environment, including impacts relating to air quality, biological resources, lighting, noise, and traffic. Consequently, impacts from the proposed project would be potentially significant.

As discussed in the GPU PEIR, the City of Santa Ana is essentially fully built out and there is limited available land to develop new parks or expand existing facilities, and there would be no feasible mitigation measures that would reduce significant impacts related to the City's parkland

to resident ratio to a less than significant level. The proposed project is consistent with the buildout envisioned in the GPU for the project area, which was analyzed in the GPU PEIR; however, as described above, the project's provision of 7.5 acres of public park and recreation facilities and applicable fees would lessen the impact identified in the GPU PEIR. The proposed project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be significant and unavoidable, based on the possibility that future, project-specific developments could result in significant, adverse physical effects on the environment.

Addressing the site-specific impacts of new parks or expanded facilities at this time would be beyond the scope of this Supplemental EIR. Furthermore, as stated in the GPU PEIR potentially adverse impacts to the environment that may result from the expansion of parks, recreational facilities, and multiuse trails pursuant to buildout of the proposed land use plan would be less than significant upon the implementation of the GPU's goals, policies, and actions and existing federal, state, and local regulations. Subsequent environmental review for future individual park developments would also be required. Although construction and/or expansion of new parks and recreation facilities would be subject to GPU policies and implementation actions; regulatory requirements, and future, project-specific environmental review under CEQA, it is still possible that development of such facilities could result in significant, unavoidable impacts. Consequently, impacts from the proposed project relating to new and/or expanded recreational facilities would be potentially significant.

MITIGATION MEASURES

The significant and unavoidable impacts related to the Threshold R-2 identified in the GPU EIR would remain with the proposed project, albeit slightly improved. No feasible mitigation measures were identified in the GPU EIR to reduce this impact to a less than significant level and there remain no feasible mitigation measures.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

While the project would not increase the severity of previously identified impacts disclosed in the GPU PEIR, project level impacts are considered significant. With no feasible mitigation measures, the proposed project impacts would remain significant and unavoidable.

4.12.6 CUMULATIVE IMPACTS

IMPACT ANALYSIS

GPU PEIR Impact Summary

The GPU PEIR does not identify any significant cumulative impacts related to Recreation; however, as described above in relation to Threshold R-1, the GPU EIR identifies a significant project-level impact from GPU buildout population growth resulting in 1.2 acres of parkland per 1,000 residents, which is less than the GPU's parkland standard of 3 acres per 1,000 residents. As stated in the GPU PEIR, the City is essentially built-out and very limited vacant land is available to be developed with new recreational opportunities. Some undeveloped land could be improved or properties redeveloped to provide residents with new recreational opportunities; however, development and operation of new or expanded recreational facilities may have an adverse physical effect on the environment, including impacts relating to air quality, biological resources, lighting, noise, and traffic.

Proposed Project Impact Analysis

As indicated in Chapter 4, Environmental Impacts Analysis, there are 32 related projects in the vicinity of the project. Of the 32 related projects, 20 are located in the City of Santa Ana, 8 are located in the City of Costa Mesa, and 4 are located in the City of Irvine. For the purposes of evaluating cumulative impacts with respect to recreation for the project, the geographic area considered is the City of Santa Ana. Of the 20 related projects located in the City of Santa Ana, four are located in the South Bristol Street Focus Area (i.e., Related Project Nos. 3, 8, 10, and 13). The related projects located in the City of Santa Ana propose various uses, including, but not limited to, apartments, single-family residences, and commercial and industrial uses. Table 4.12-4 identifies the amount of publicly accessible park/recreation facilities and open space that would be provided by the related projects.

Table 4.12-4: Park/Recreation Facilities and Open Space of Related Projects

No.	Related Project	Uses	Population (persons)[a]	Park/ Recreation Facilities and Open Space (acres)
1	**Legado at the Met** 200 E. First American Way	Residential apartments	670	0.3
2	**Our Lady of Guadalupe Office/Residence** 542 E. Central Avenue	Church, rectory, and office	N/A	--
3	**Pollo Campero** 2320 S. Bristol Street	Fast-food restaurant with drive-thru	N/A	--
4	**Garry Avenue Business Park** 1700 E. Garry Avenue	Distribution, warehousing	N/A	--
5	**Shell Service Station Retail Building** 3820 S. Fairview Street	Gas station and convenience store	N/A	--
6	**3130 Fairview Industrial Building** 3130 S. Fairview Street	Industrial	N/A	--
7	**Bristol Office Plaza** 1400 W. Saint Gertrude Place	Commercial	N/A	--
8	**Chick-Fil-A Expansion** 3601 S. Bristol Street	Expansion of fast-food restaurant with drive-thru	N/A	--
9	**Legacy Sunflower Apartments** 651 W. Sunflower Avenue	Apartments	545	0.5
10	**Related Bristol** NW and SW corners of Bristol Street and Callen's Common	Mixed-use	9,238	13.1
11	**Harvard Warehouse** 3010 W. Harvard Street	Warehouse	N/A	--
12	**Insand** 2100 W. Alton Avenue	Commercial fitness facility	N/A	--
13	**7 Leaves @ Bristol/Segerstrom** 3000 S. Bristol Street	Cafe with drive-thru	N/A	--

Table 4.12-4: Park/Recreation Facilities and Open Space of Related Projects

No.	Related Project	Uses	Population (persons)[a]	Park/ Recreation Facilities and Open Space (acres)
14	**Covicon Industrial Building** 3020 W. Harvard Street	Industrial	N/A	--
15	**Starbucks** 2235 S. Bristol Street	Coffee shop with drive-thru	N/A	--
16	**Industrial Building** 3100 S. Harbor Boulevard	Industrial/office	N/A	--
17	**Industrial Building Addition** 3501 W. Segerstrom Avenue	Industrial building addition	N/A	--
18	**IDS Real Estate Industrial Building** 300 E. Dyer Road	Industrial	N/A	--
19	**Park 55 Development** 1221 E. Dyer Road	Industrial	N/A	--
20	**Tommy's Car Wash** 2860 S. Main Street	Car wash	N/A	--
		Total	**10,458**	**13.9**

[a] Person per household rates are based on the GPU PEIR, Appendix B, Table 4.
Sources: City of Santa Ana, 2024, Major Planning Projects and Monthly Development Reports, available at: https://www.santa-ana.org/major-planning-projects-and-monthly-development-project-reports/, accessed February 2024; Michael Baker International, 2024.

As shown in Table 4.12-4 and discussed in Section 4.10, Population and Housing, development of the related projects within the City would result in 10,458 persons and 13.9 acres of publicly accessible parks/recreation facilities and open space, resulting in a ratio of 1.3 acres per 1,000 residents, which is below the City's GPU policy parkland standard of 3 acres of parkland. As such, a significant cumulative impact is identified from the related projects under the GPU buildout related to recreational resources.

Together with the contribution from the proposed project's maximum buildout of 3,815 persons and 7.5 acres of publicly accessible parks/recreation facilities and open space, the proposed project plus the related projects would result in a total of 14,273 persons and 21.4 acres of publicly accessible park/recreation facilities and open space, for a ratio of 1.5 acres per 1,000 residents. While the proposed project and the related projects would improve the GPU buildout's parkland-per-resident ratio and would be required to provide park and recreational facilities and/or pay in-lieu fees as required by the municipal code, due to the lack of available land to develop new parks or expand existing facilities, the ratio would still remain below the GPU's parkland standard. For this reason, the proposed project's incremental contribution relating to the deficiency of parkland within the City would be cumulatively considerable.

MITIGATION MEASURES

The significant and unavoidable impacts related to the cumulative impacts would result with the proposed project, albeit slightly improved. No feasible mitigation measures were identified in the

GPU EIR to reduce this impact to a less than significant level and there remain no feasible mitigation measures.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

While the project's incremental contribution to cumulative impacts related to recreation would improve the existing cumulative scenario and the impacts identified in the GPU PEIR, cumulative impacts to recreation resources would remain significant and unavoidable.

4.13 TRANSPORTATION

This section analyzes the potential impacts of the proposed project related to transportation. This section presents the regulatory setting, environmental setting, methodology for determining potential impacts, impact analysis, and an analysis of potential cumulative impacts pertaining to transportation. As the project pursues buildout of part of the City's General Plan Land Use Plan, which was analyzed in the GPU PEIR, this section compares the project's impacts with the impacts identified in the GPU PEIR. This section is based, in part, on the Vehicle Miles Traveled (VMT) Screening Assessment for The Village Santa Ana Project, prepared by Linscott Law & Greenspan Engineers (April 2025), which is included as Appendix H.

TRANSPORTATION TERMINOLOGY

- *Class I Bike Path*: Class I bike paths are paved rights-of-way for the exclusive use of bicyclists and pedestrians. They are physically separated from vehicle traffic and generally built in locations not served by streets or where vehicular crossflows are minimized.
- *Class II Bike Lane*: Class II bike lanes are one-way routes denoted by a striped lane on a roadway to delineate the rights-of-way for vehicles and bikes. Bike lanes can be striped adjacent to the curb where no parking exists or striped to the left side of on-street parking spaces.
- *Class III Bike Route*: Class III bicycle routes are where cyclists share the travel lane with motor vehicles. They are typically on low-volume roadways, such as local streets in residential neighborhoods, and may be designated by signage or roadway markings (called sharrows).
- *Class IV Cycle Track*: Class IV facilities are local roads that have been enhanced with treatments that prioritize bicycle travel. These treatments might include wayfinding signage, bollards, and traffic-calming features that facilitate safe and convenient bicycle travel, slow vehicle speeds, and minimize vehicular traffic volumes.
- *High Quality Transit Corridor*: A high-quality transit corridor is a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.
- *Traffic Analysis Zone (TAZ)*: A TAZ refers to the geographic unit used for traffic analysis within transportation planning models. A TAZ is a special area delineated by state and/or local transportation officials for tabulating traffic-related data especially journey-to-work and place-of-work statistics. A TAZ usually consists of one or more census blocks, block groups, or census tracts.
- *Transit Priority Area (TPA)*: As defined by Senate Bill (SB) 743, a TPA is an area located within a one-half mile of an existing or planned "major transit stop" or an existing stop along a "high quality transit corridor." Per Public Resources Code, Section 21064.3, "'Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods." Per Public Resources Code, Section 21155, a high-quality transit corridor means a "corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours."
- *Vehicle Miles Traveled (VMT)*: VMT is defined as the total miles traveled by vehicles (within a transportation network).

- *Low VMT Area*: The City of Santa Ana defines low VMT areas as TAZs with a total daily VMT/Service Population (employment plus population) that is 15 percent less than the baseline level for the County.

4.13.1 REGULATORY FRAMEWORK

STATE

Senate Bill 743

On September 27, 2013, Governor Jerry Brown signed SB 743, which went into effect in January 2014. SB 743 added Section 21099 to the Public Resources Code (PRC), which directed the Office of Planning and Research to prepare State CEQA Guidelines Section 15064.3 which established criteria for determining the significance of transportation impacts that promote the reduction of greenhouse gas (GHG) emissions, the development of multimodal transportation networks, and a diversity of land uses. The State's adoption of the Sustainable Communities and Climate Protection Act of 2008 (SB 375) had signaled its commitment to encourage land use and transportation planning decisions and investments that reduce VMT and thereby contribute to the reduction of GHG emissions, as required by the California Global Warming Solutions Act of 2006, Assembly Bill (AB) 32. SB 743 and PRC Section 21099 further require that, upon certification of such guidelines, "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment," pursuant to CEQA.

The amended State CEQA Guidelines state that "generally, VMT is the most appropriate measure of transportation impacts" and were applied statewide in July 2020. The adoption of VMT as the appropriate metric of transportation impacts reflects the stated intent of the legislation to "promote the reduction of GHG emissions, the development of multimodal networks, and a diversity of land uses." Use of level of service alone as an impact criterion can result in unintended consequences such as more sprawl, less walkability, more vehicle travel, and inefficient public transit. While the use of VMT as an impact analysis metric helps to provide a more complete perspective of the potential effects of land use and transportation decisions.

Office of Planning and Research Technical Advisory on Evaluating Transportation Impacts in CEQA

Following the passage of SB 743, the Office of Planning and Research (OPR) prepared the Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory) containing technical recommendations for the assessment of VMT, thresholds of significance, and mitigation measures. The Technical Advisory is a resource containing advice and recommendations for professional planners, land use officials, and CEQA practitioners to use at their discretion, and is not enforced. The Technical Advisory was published in April 2018 and updated in December 2018.

State CEQA Guidelines Section 15064.3

Recent changes to the State CEQA Guidelines include the adoption of Section 15064.3, Determining the Significance of Transportation Impacts pursuant to PRC Sections 21099 and 21100. State CEQA Guidelines Section 15064.3 establishes VMT as the most appropriate measure of transportation impacts. This section further states, "Generally, land use projects within 0.5 mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less-than-significant transportation impact. Projects that decrease VMT in the project area compared to existing conditions should be presumed to have a less-than-significant transportation impact." A lead agency has discretion to choose the most

appropriate methodology to evaluate VMT, including whether to express the change in absolute terms, per capita, per household, or in any other measure. A lead agency may also use models to estimate VMT and may revise those estimates to reflect professional judgment based on substantial evidence.

Assembly Bill 1358 (The Complete Streets Act)

AB 1358 (Complete Streets Act [Government Code Sections 65040.2 and 65302]) was signed into law by Governor Arnold Schwarzenegger in September 2008 to require circulation elements to address the transportation system from a multimodal perspective. As of January 1, 2011, the law requires cities and counties, when updating the part of a local general plan that addresses roadways and traffic flows, to ensure that those plans account for the needs of all roadway users. Specifically, the legislation requires cities and counties to ensure that local roads and streets adequately accommodate the needs of bicyclists, pedestrians, and transit riders, as well as motorists.

Senate Bill 375

SB 375 requires metropolitan planning organizations to prepare a sustainable communities strategy (SCS) as part of their regional transportation plans (RTP) as a means for achieving regional transportation-related GHG targets. The SCS demonstrates how the region could meet its GHG reduction targets through integrated land use, housing, and transportation planning. Specifically, the SCS must identify land use and transportation strategies that combined with the RTP project list will reduce GHG emissions from automobiles and light trucks in accordance with targets set by the California Air Resources Board.

California Fire Code

The California Fire Code sets requirements pertaining to fire safety and life safety, including for emergency access and evacuation (California Code of Regulations Title 24 Part 9). The California Fire Code is incorporated by reference in Section 14-1 of the Santa Ana Municipal Code.

California Manual of Uniform Traffic Control Devices

The California Manual on Uniform Traffic Control Devices is published by the State and is issued to adopt uniform standards and specifications for all official traffic control devices in California, in accordance with Section 21400 of the California Vehicle Code. Effective January 11, 2024, the California Department of Transportation has made edits referred to as Revision 8, to the 2014 California Manual on Uniform Traffic Control Devices.

REGIONAL

Southern California Association of Governments Regional Transportation Plan and Sustainable Communities Strategy

The City of Santa Ana is located within the jurisdiction of the Southern California Association of Governments (SCAG). In September 2020, the SCAG Regional Council adopted the Connect SoCal 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 RTP/SCS), a long-range visioning plan that incorporates land use and transportation strategies to increase mobility options and achieve a more sustainable growth pattern while meeting GHG reduction targets set by the California Air Resources Board.

Connect SoCal's "Core Vision" prioritizes the maintenance and management of the region's transportation network, expanding mobility choices by co-locating housing, jobs, and transit and increasing investment in transit and complete streets. Strategies to achieve the "Core Vision"

include, but are not limited to, Smart Cities and Job Centers, Housing Supportive Infrastructure, Go Zones, and Shared Mobility. Connect SoCal intends to create benefits for the SCAG region by achieving regional goals for sustainability, transportation equity, improved public health and safety, and enhancement of the region's overall quality of life. These benefits include, but are not limited to, a 5 percent reduction in VMT per capita, a 9 percent reduction in vehicle hours traveled, and a 2 percent increase in work-related transit trips.

LOCAL

City of Santa Ana General Plan Update

The City's GPU includes regulatory requirements (RR), goals, and policies related to transportation. The following RRs and Mobility Element and Land Use Element goals and policies are applicable to the proposed project.

Regulatory Requirements

RR T-1: The City will design and operate a balanced, multimodal circulation system network with all users in mind—including bicyclists, public transportation vehicles and riders, and pedestrians of all ages and abilities in line with the California Complete Streets Act (Assembly Bill 1358).

RR T-2: Projects pursuant to the General Plan Update will implement fire protection requirements as detailed in the Orange County Fire Authority's Fire Prevention Guidelines and in the California Fire Code.

Mobility Element

Goal M-1 Comprehensive Circulation: A comprehensive and multimodal circulation system that facilitates the safe and efficient movement of people, enhances commerce, and promotes a sustainable community.

- *Policy M-1.2 Balanced Multimodal Network*: Provide a balanced and equitable multimodal circulation network that reflects current and changing needs.
- *Policy M-1.4 Motor Vehicle Level of Service*: Maintain at least a vehicle level of service "D" for intersections of arterial streets, except in areas planned for high intensity development or traffic safety projects.
- *Policy M-1.5 Multimodal Level of Service*: Ensure that new development and City projects maintain or improve the current level of service for all modes of transportation.
- *Policy M-1.6 Complete Streets*: Transform travelways to accommodate all users through street design and amenities, such as sidewalks, trees, landscaping, street furniture, and bus shelters.
- *Policy M-1.7 Proactive Mitigation*: Proactively mitigate existing and new potential air quality, noise, congestion, safety, and other impacts from the transportation network on residents and business, especially in environmental justice communities.
- *Policy M-1.8 Environmental Sustainability*: Consider air and water quality, noise reduction, neighborhood character, and street-level aesthetics when making improvements to travelways.

Goal M-3 Active Transportation: A safe, balanced, and integrated network of travelways for nonmotorized modes of transportation that connects people to activity centers, inspiring healthy and active lifestyles.

- *Policy M-3.1 Nonmotorized Travelway Network*: Expand and maintain a citywide network of nonmotorized travelways within both the public and private realms that create linkages between neighborhoods, recreational amenities, schools, employment centers, neighborhood serving commercial, and activity centers.
- *Policy M-3.2 Nonmotorized Travelway Amenities*: Enhance nonmotorized travelways with amenities such as landscaping, shade trees, lighting, benches, crosswalks, rest stops, bicycle parking, and support facilities that promote a pleasant and safe experience.
- *Policy M-3.6 Transit Connectivity*: Enhance first and last mile connectivity to transit facilities through safe, accessible, and convenient linkages.
- *Policy M-3.9 Neighborhood Traffic:* Develop innovative strategies to calm neighborhood traffic, increase safety, and eliminate collisions, while also maintaining access for emergency response.

Goal M-4 Transportation, Land Use, and Design: Coordinated transportation planning efforts with land use and design strategies that encourage sustainable development and achieve broader community goals.

- *Policy M-4.1 Intense Development Areas*: Program multimodal transportation and public realm improvements that support new development in areas along transit corridors and areas planned for high intensity development.
- *Policy M-4.4 Fair Share Impacts*: Ensure that all development projects pay their fair share of the system improvements necessary to accommodate the transportation needs of their projects.
- *Policy M-4.5 Land Use Development Design*: Ensure that building placement and design features create a desirable and active streetscape, by prioritizing pedestrian access directly from the street and placing parking lots to the rear of a development site.
- *Policy M-4.6 Roadway Capacity Alternatives*: Promote reductions in automobile trips and vehicle miles traveled by encouraging transit use and nonmotorized transportation as alternatives to augmenting roadway capacity.
- *Policy M-4.9 Air Pollution Mitigation*: Utilize land use, building, site planning, and technology solutions to mitigate exposure to transportation-related air pollution, especially in environmental justice focus areas.

Goal M-5 Sustainable Transportation Design: A transportation system that is attractive, safe, state-of-the-art, and supports community, environmental, and conservation goals.

- *Policy M-5.1 Enhanced Street Design*: Improve the beauty, character, and function of travelways with amenities such as landscaped parkways and medians, bike lanes, public art, and other amenities.
- *Policy M-5.4 Green Streets*: Leverage opportunities along streets and public rights-of-way to improve water quality through use of landscaping, permeable pavement, and other best management practices.
- *Policy M-5.5 Street Design*: Design and retrofit streets based on their combined land use context and road function to achieve safety objectives.
- *Policy M-5.6 Clean Fuels and Vehicles*: Encourage the use of alternative fuel vehicles and mobility technologies through the installation of supporting infrastructure.

- *Policy M-5.7 Infrastructure Condition*: Enhance travelway safety by maintaining streets, alleys, bridges, sidewalks, lighting, and other transportation infrastructure in excellent condition.
- *Policy M-5.8 Traffic Safety*. Prioritize the safety of all travelway users when designing transportation improvement and rehabilitation projects.

Land Use Element

Goal LU-2 Land Use Needs: Provide a balance of land uses that meet Santa Ana's diverse needs.

- *Policy LU-2.5 Benefits of Mixed Use:* Encourage infill mixed-use development at all ranges of affordability to reduce vehicle miles traveled, improve jobs/housing balance, and promote social interaction.

Goal LU-4 Complete Communities: Support a sustainable Santa Ana through improvements to the built environment and a culture of collaboration.

- *Policy LU-4.5 VMT Reduction:* Concentrate development along high quality transit corridors to reduce vehicle miles traveled and transportation-related carbon emissions.

Santa Ana Traffic Impact Study Guidelines

The City's Traffic Impact Study Guidelines (TIS Guidelines), dated September 2019, are based on the OPR Technical Advisory and in accordance with SB 743.[1] The TIS Guidelines assess the potential transportation impacts of proposed development projects, General Plan Amendments, and changes to the zoning in the City. A VMT analysis is required for land use and transportation projects that have the potential to increase the average VMT per service population (VMT/SP). Service population typically includes the total employees and residents within a study area or project. Projects may be screened out from completing a VMT analysis if they have the potential to reduce VMT/SP and result in a less-than-significant transportation impact. The criteria to be met for screening out of a VMT analysis is detailed in Section 4.13.4, Methodology, below.

Santa Ana Active Transportation Plan

The Santa Ana Active Transportation Plan, adopted in June 2019, details recommendations to support and increase bicycling and walking in the City, enhance non-motorized travel infrastructure, and create opportunities to support the existing population. The Active Transportation Plan includes an inventory of existing bike and pedestrian infrastructure, identifies deficiencies, develops and prioritizes improvements, and strengthens pedestrian and bicycle policies in the RTP.[2] The Active Transportation Plan only covers Central Santa Ana, located north of the project site. There are no proposed projects in the Active Transportation Plan that would be affected by the proposed project.

Santa Ana Citywide Design Guidelines

The purpose of the Citywide Design Guidelines is to provide comprehensive and consistent design guidance for the development and redevelopment within the City that reflects the City's commitment to quality design. The Citywide Design Guidelines are used by City staff, the Development Review Committee, Historic Resources Commission, and the Planning Commission in the review of proposed projects as required by the City's General Plan and Municipal Code.

[1] City of Santa Ana, 2019, City of Santa Ana Traffic Impact Study Guidelines available at: https://www.santa-ana.org/documents/traffic-vmt-impact-study-guidelines/.
[2] City of Santa Ana, 2019, Santa Ana Active Transportation Plan Final Report, available at: https://issuu.com/ktua/docs/santa_ana_atp_final_report_-_june_2.

The guidelines apply to uses including but not limited to residential, commercial, parking, signage, and bicycle facilities.

4.13.2 ENVIRONMENTAL SETTING

PROJECT SITE ACCESS AND ROADWAY NETWORK

The public roadway network serving the project site vicinity includes West MacArthur Boulevard, South Bristol Street, Sunflower Avenue, South Bear Street, South Plaza Drive, and Callen's Common. A description of each roadway is provided below.

MacArthur Boulevard is designated as a major arterial roadway, or a street with six travel lanes and a center median, in the City's General Plan. It is a six-lane divided roadway that runs in an east-west direction and is located approximately 0.2 mile north of the project site. MacArthur Boulevard has sidewalks on both sides of the street and has a posted speed limit of 40 miles per hour (mph). On-street parking is not permitted along this roadway in the vicinity of the project site.

Bristol Street is designated as a major arterial roadway in the General Plan. It is a six-lane divided roadway that runs in a north-south direction and is located approximately 0.2 mile east of the project site. Bristol Street has sidewalks on both sides of the street, Class II bike lanes for the northbound and southbound sides of the street, and has a posted speed limit of 40 mph. On-street parking is not permitted on either side of this roadway in the vicinity of the project site.

Sunflower Avenue is designated as a major arterial roadway in the General Plan and is the dividing boundary between the City of Santa Ana to the north and the City of Costa Mesa to the south. It is a six-lane divided roadway that runs in an east-west direction and borders the project site to the south. Sunflower Avenue has a sidewalk on the westbound side of the roadway and has a posted speed limit of 40 mph. On-street parking is not permitted on either side of this roadway in the vicinity of the project site. Sunflower Avenue provides regional connectivity via Bristol Street and Bear Street to nearby freeways that include Interstate 405 and State Route 73 to the south and State Route 55 to the east.

Bear Street is designated as a secondary arterial roadway, or a street with four travel lanes and no center median, in the General Plan. Bear Street is the dividing boundary between the City of Santa Ana to the east and the City of Costa Mesa to the west. It is a four-lane divided roadway north of MacArthur Boulevard and a five-lane divided roadway between MacArthur Boulevard and Sunflower Avenue that runs in a north-south direction. The posted speed limit on Bear Street is 40 mph, and on-street parking is not permitted along this roadway in the vicinity of the project site.

Plaza Drive is a four-lane divided local roadway with sidewalks on both sides of the roadway. Plaza Drive provides north-south access and bisects the project site into two sections. The west side of Plaza Drive includes an existing 4-foot-wide landscape area that serves as a buffer between the existing parking lot and sidewalk. The southern end of Plaza Drive terminates at Sunflower Avenue, where it becomes an entryway to South Coast Plaza. The posted speed limit on South Plaza Drive is 25 mph and on-street parking is not permitted along this roadway in the vicinity of the project site.

Callen's Common is a four-lane local roadway that runs in an east-west direction and is located at the northeast corner of the project site, beginning at the intersection of Plaza Drive and terminating at the intersection of Bristol Street.

PUBLIC TRANSIT SERVICE

The Orange County Transit Authority (OCTA) provides public transit service to and from the project area. The project site is located in an OCTA-designated Transit Opportunity Corridor, which means it is a corridor located in Orange County identified as a candidate for investment in high-quality transit services, such as bus rapid transit.[3] OCTA operates one bus stop along the project site frontage on Sunflower Avenue and another stop along South Plaza Drive, which bisects the site. Multiple bus stops are available within the vicinity of the project site offering service to destinations with consistent headways throughout Orange County and beyond, including the following routes:

- *OCTA Local Route 55*: The main route of travel runs via MacArthur Boulevard and Bristol Street from Santa Ana to Newport Beach and has an approximately 30-minute headway (Monday through Sunday). The nearest bus stops are located directly east of the project site along Bristol Street between MacArthur Boulevard and Sunflower Avenue.
- *OCTA Local Route 57:* The main route of travel runs via State College Boulevard and Bristol Street from Brea to Newport Beach and has a headway of approximately 15 minutes (Monday through Sunday). The nearest bus stops are located directly east of the project site along Bristol Street between MacArthur Boulevard and Sunflower Avenue.
- *OCTA Local Route 76:* The main route of travel runs via Talbert Avenue and MacArthur Boulevard from Huntington Beach to John Wayne Airport and has an approximately 60-minute headway (Monday through Friday). The nearest bus stops are located directly north of the project site along MacArthur Boulevard between South Plaza Drive and Bristol Street.
- *OCTA Local Route 86:* The main route of travel runs from Sunflower Avenue and Bristol Street to Mission Viejo and has an approximately 60-minute headway (Monday through Friday). The nearest bus stops are located directly south and west, and east of the project site. The bus stops south and west of the project site are located along Sunflower Avenue between South Plaza Drive and Bristol Street and Callen's Common and Sunflower Avenue, respectively. The bus stop east of the project site is located along Bristol Street between MacArthur Boulevard and Callen's Common.
- *OCTA Community Route 150*: The main route of travel runs via Fairview Street and Flower Street from Santa Ana to Costa Mesa and has an approximately 40 minutes headway (Monday to Friday). The nearest bus stop is located directly south of the project site along Sunflower Avenue at South Plaza Drive.
- *OCTA Bravo Limited Stop Service 553*: The main route of travel runs via Main Street from Anaheim to Costa Mesa, with buses approximately every 20 minutes (Monday through Friday). The nearest bus stop is located east of the project site along Sunflower Avenue at Bristol Street.

Other public transit services within the City include the Southern California Regional Rail Authority (Metrolink), which provides commuter and passenger rail service. The Metrolink Orange County Line and the Inland Empire-Orange County commuter lines travel through Santa Ana, with stops at the Santa Ana Regional Transportation Center, located in the northeast portion of the City. Amtrak's Pacific Surfliner also provides passenger rail service through the Santa Ana Station,

[3] Orange County Transit Authority, 2018, OC Transit Vision Transit Opportunity Corridors Report, available at: https://www.octa.net/pdf/OC%20Transit%20Vision%20Final%20Report.pdf.

connecting Santa Ana residents and commuters to neighboring areas such as Los Angeles and San Diego counties.

OCTA also provides paratransit services through OC ACCESS, which is a shared-ride service available for residents whose physical or cognitive limitations prevent them from using the regular fixed-route bus service. OC ACCESS buses will pick up disabled residents who live within a quarter mile of an OCTA fixed bus route, and this service is offered anywhere in Orange County near fixed routes. The majority of residential areas within the City are covered by this service.

BICYCLE AND PEDESTRIAN FACILITIES

The existing bicycle facility network in the City makes up a total of 42 miles, consisting of multi-use paths, bicycle lanes, and shared bicycle routes.[4] Existing bicycle facilities within the vicinity of the project site includes Class I Bike Paths on the west side of Bear Street, south of Sunflower Avenue, and Sunflower Avenue east of Park Center Drive. Bristol Street has Class II Bike Lanes on both sides of the roadway.

Existing pedestrian facilities within the project area include sidewalks on both sides of MacArthur Boulevard, South Plaza Drive, and Bristol Street, and on the westbound side of Sunflower Avenue. The project site is located within a Pedestrian Opportunity Zone, as identified in the City's GPU. A Pedestrian Opportunity Zone is defined as an area with the potential for high pedestrian activity with the establishment of land use densities and/or street and pedestrian improvements. The Santa Ana Active Transportation Plan identifies projects for bicycle and pedestrian facilities recommendations, including a Class II bike lane or Class IV cycle track within MacArthur Boulevard in the vicinity of the project site.

EXISTING VMT

As discussed in Section 5.16.1.2, "Transportation Existing Conditions" of the GPU PEIR, VMT is defined as the total miles traveled by vehicles within a transportation network. A VMT analysis may be conducted for large-scale projects such as land use plans or individual transportation/development projects. For these projects, VMT impacts are based on total VMT/SP for the entire county. As detailed previously, the service population includes the total employees and population that generate the VMT.

The City's VMT was generated through linear interpolation of data from the Orange County Transportation Authority Model 5.0 for the years 2020 and 2045 as shown in Table 4.13-1: VMT Summary, below.

Table 4.13-1: VMT Summary

	Total VMT	Service Population	VMT/SP
City (2020)	11,407,124	507,904	22.5
City (2045)	11,518,959	566,616	20.3
County (2020)	99,344,141	3,834,949	25.9

Source: City of Santa Ana, 2021, General Plan Update PEIR Tables 5.16-2 and 5.16-3, available at: https://general-plan-santa-ana-ca.proudcity.com/other-resources/environmental-documents/.

[4] City of Santa Ana, 2019, Santa Ana Active Transportation Plan Final Report, available at: https://issuu.com/ktua/docs/santa_ana_atp_final_report_-_june_2.

4.13.3 THRESHOLDS OF SIGNIFICANCE

The significance thresholds used to evaluate the impacts of the proposed project related to transportation are based on Appendix G of the State CEQA Guidelines. A project would have a significant impact related to transportation if it would:

T-1 ***Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit roadway, bicycle, and pedestrian facilities.***

T-2 ***Conflict or be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b).***

T-3 ***Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).***

T-4 ***Result in inadequate emergency access.***

4.13.4 METHODOLOGY

The analysis of transportation-related impacts considered the proposed improvements to the existing circulation network at the project site, including improvements of existing public roadways and a new internal network of private streets and drives.

Regarding consistency with applicable circulation plans, programs, ordinances, or policies, the impact analysis below evaluates the project's potential to conflict with the applicable policies in the GPU Mobility Element and Land Use Element. According to CEQA, a project does not need to be in perfect conformity with each and every policy. A project is considered consistent with an applicable plan if it is consistent with the overall intent of the plan and would not preclude the attainment of its primary goals. Therefore, any inconsistency with an applicable policy, plan, or regulation is only a significant impact under CEQA if the inconsistency itself would result in a direct physical impact on the environment.

As outlined in State CEQA Guidelines Section 15064.3, a project's effect on automobile delay shall not constitute a significant environmental impact; therefore, the project impact analysis has been prepared in accordance with CEQA requirements to evaluate potential transportation impacts based on VMT. The City of Santa Ana TIS Guidelines provide criteria for projects that would be considered to have a less than significant impact on VMT and thus could be screened out from further analysis. For projects that do not meet the screening criteria, a significant impact occurs when a project generates total daily VMT/SP higher than 15 percent below the existing total daily VMT/SP for the County. In accordance with the TIS Guidelines, the VMT screening thresholds were used to determine the level of impact the proposed project could have on VMT, which are based on the following criteria:

- Projects which serve the local community and have the potential to reduce VMT, such as neighborhood K-12 schools and local-serving retail less than 50,000 square feet.
- Projects that generate less than 110 net daily trips.
- Projects located within TPAs. Projects that are in TPAs will also be required to complete a secondary screening step to verify the proposed project's consistency with the assumptions from the RTP/SCS either by a land use review or determining whether the resulting land use would increase or decrease the VMT/SP in the TAZ when compared to the RTP/SCS assumptions.

- Projects located in a low-VMT generating TAZ. Low-VMT TAZs per Santa Ana's threshold of significance are any TAZs generating VMT 15 percent below the Orange County average. Projects will require additional screening which include:
    1. Verification that the proposed land use is consistent with the existing land use that is generating low VMT/SP through a comparison of the land use, and
    2. Verification that the proposed land use is consistent with the RTP/SCS assumptions or the project decreases VMT/SP compared to the RTP/SCS.

Trips generated by the proposed project have been estimated based on trip generation rates provided by the Institute of Transportation Engineers Trip Generation Manual, 11th Edition (2021).

4.13.5 PROJECT IMPACTS

T-1 Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit roadway, bicycle and pedestrian facilities? *[GPU PEIR Impact 5.16-1]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

Impact 5.16-1 of the GPU PEIR determined that the GPU is consistent with adopted programs, plans, and policies addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. For roadways, the Mobility Element of the GPU is consistent with the planning goals established by OCTA as the City continuously coordinates with OCTA to ensure that local or regional improvements benefitting Santa Ana are included in OCTA's latest Long-Range Transportation Plan which is updated every four years. Additionally, the GPU PEIR determined that the proposed GPU is consistent with the City's Active Transportation Plan, Complete Streets Plans, and SCAG's RTP/SCS. Additionally, the GPU PEIR determined that while implementation of the GPU would increase demand for public transit, bicycle, and pedestrian facilities, which would require the improvement and expansion of the circulation system, no potential policy inconsistencies or conflicts with policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or the performance or safety of those facilities would occur, because the GPU includes policies to support alternative modes of transportation. For these reasons as well as the implementation of RR T-1, which is to design and operate a balanced, multimodal circulation system network with all users in mind, impacts related to the GPU were determined to be less than significant.

Proposed Project Impact Analysis

Roadways

As discussed in Section 4.13.2 Environmental Setting, the public network serving the project site vicinity includes West MacArthur Boulevard, South Bristol Street, Sunflower Avenue, South Bear Street, South Plaza Drive, and Callen's Common. The proposed circulation network would consist of existing public roadways and a new internal network of private streets and drives that offer access throughout The Village (refer to Figure 3-11 of Chapter 3, Project Description). Vehicular access to the project site would continue to be provided from three existing public roadways offering access to The Village: Sunflower Avenue; Plaza Drive; and Bear Street. The proposed project would implement the following improvements:

- *Sunflower Avenue:* Install a new Class IV cycle track and landscape buffers and continue the sidewalk.

- *Plaza Drive:* Expand curb-to-curb width from 64 feet to 80 feet, add a loading zone in the expanded right-of-way, two new traffic signals, and install new curb-adjacent landscape buffers.
- *Bear Street:* Install a new Class I bike path and two new traffic signals, one of which would be at the intersection of Bear Street and Wakeham Place.

The project would also provide a new internal network of private roadways to support mobility throughout The Village to encourage the movement of people and goods to and from the residences and businesses and to provide access to public utilities. These public and private roadways throughout The Village would incorporate traffic calming measures and be designed to accommodate emergency vehicles for fire, ambulance, and police services in accordance with the Orange County Fire Authority standards and requirements.

The project would also have multiple on-site loading zones to accommodate passengers and goods (refer to Figure 3-12 of Chapter 3, Project Description). These include designated passenger loading zones that would create safe and comfortable entries into The Village for passengers that are dropped off or picked up via ridesharing or other modes. The designated passenger on-site loading zones would also prevent queuing in vehicular travel lanes. The project also includes commercial on-site loading zones to separate the movement of goods from the movement of people and to support businesses throughout The Village.

Parking would also be provided to accommodate residents and visitors that drive to and from The Village by a combination of underground parking, above-ground structured parking, and on-street parking within the internal private street network (refer to Figure 3-13 of Chapter 3, Project Description). A portion of these parking spaces would be designated and equipped with charging receptacles for electric vehicles for residential and nonresidential uses. A parking management plan, approved by the Planning Manager, is required for shared, joint, or reciprocal parking between uses or buildings along with agreements, as needed, if ownership differs.

The proposed project would enhance the existing circulation network by including improvements to existing roadways, providing a new internal network of private roadways and loading zones to encourage the safe movement of people and goods, and providing adequate parking for residents and visitors to the project site. As such, the proposed project would comply with RR T-1 to design and operate a balanced, multimodal circulation system network with all users in mind. All roadway improvements and new roadway construction would be designed in accordance with the policies in the GPU Mobility Element and Land Use Element and the citywide design guidelines. Additionally, circulation network improvements would be subject to review by the City's Public Works Agency engineering staff. Therefore, consistent with the GPU PEIR, the proposed project would not conflict with a program plan, ordinance or policy addressing the roadway circulation system, and impacts would be less than significant.

Transit

As discussed in Section 4.13.2, Environmental Setting, the project site is located in an OCTA-designated Transit Opportunity Corridor. OCTA operates Routes 55, 57, 76, 86, 150, and 553 within the vicinity of the project site that offer consistent service to destinations throughout Orange County and beyond. Refer to Figure 3-10 of Chapter 3, Project Description for the existing public transit stops located within or directly adjacent to the project site that would continue to serve the ridership in the area. Bus stops and bus shelters would continue to be provided but may be relocated or reconstructed along the project frontages as a part of the project in collaboration with OCTA. No reduction in the number of bus stops along the project site frontages is anticipated. The Metrolink Orange County Line, the Metrolink Inland Empire-Orange County commuter lines,

and Amtrak's Pacific Surfliner have stations in and travel through Santa Ana, connecting Santa Ana residents and commuters to neighboring areas such as Los Angeles and San Diego Counties. These existing transit services would continue to serve the ridership in the area which would include the residents, employees, and visitors of the project site. As such, the proposed project would not alter or conflict with existing transit services, and the project would not result in an adverse effect to transit service. Impacts would be less than significant.

Bicycle Facilities

The proposed project would enhance the existing circulation and mobility infrastructure throughout the project site by providing a bicycle network (refer to Figure 3-9 of Chapter 3, Project Description). The bicycle network would be designed in accordance with the planned bikeways identified in the Santa Ana General Plan which include a new Class IV cycle track along Sunflower Avenue and a new Class I bike path along Bear Street. The proposed bicycle network and related amenities provided throughout The Village include areas for users to park their bicycles during their stay. The proposed bicycle facilities would be designed in accordance with the Bikeway Support Facilities Guidelines of the Citywide Design Guidelines. As such, the proposed project would enhance the existing bicycle facilities within the project vicinity and would not conflict with the existing or planned bicycle transportation and circulation. Impacts would be less than significant.

Pedestrian Network

As discussed in Section 4.13.2, Environmental Setting, the project site is located within a Pedestrian Opportunity Zone as identified in the City's GPU. The proposed project would provide a pedestrian network allowing residents, visitors, and other users to walk throughout The Village (refer to Figure 3-8 of Chapter 3, Project Description). The project would include sidewalks, pedestrian paths leading to the central commercial area, and a fitness loop circling the perimeter of and within The Village to connect the gardens, open space, and retail areas within the site to the edges of the project site. This enhanced pedestrian network would expand and provide additional facilities within the City and the project would not conflict with the existing or planned pedestrian network and circulation. Impacts would be less than significant.

Conclusion

Consistent with the analysis in Impact 5.16-1 in the GPU PEIR, the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system for roadways, transit, bicycle or pedestrian facilities. The proposed project would enhance the existing circulation network by including improvements to existing roadways, providing a new internal network of private roadways and loading zones to encourage the safe movement of people and goods, and providing adequate parking for residents and visitors to the project site. Additionally, the proposed project would maintain the existing public transit stops located within, directly adjacent to, or in the vicinity of the project site and would continue to serve the ridership in the area which would include the residents, employees, and visitors of the project. The proposed project would also enhance the existing bicycle and pedestrian facilities within the project vicinity to allow residents, visitors, and other users to travel throughout The Village. Therefore, impacts related to roadways, transit, bicycle facilities, and pedestrian circulation would be less than significant.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to a conflict with a circulation program, plan, ordinance, or policy disclosed in the GPU PEIR, which were determined to be less than significant.

Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold T-1 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold T-1 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

T-2 Would the project conflict or be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b)? *[GPU PEIR Impact 5.16-2]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

Impact 5.16-2 of the GPU PEIR determined that impacts related to VMT would be less than significant for the City's projected buildout year for the GPU of 2045. Additionally, the GPU PEIR stated that implementation of the GPU Policies, such as Land Use Policies LU-2.5 and LU-4.5 and Mobility Policy M-4.6, promote the reduction of VMT. Land Use Policy LU-2.5 encourages infill mixed-use development at all ranges of affordability to reduce VMT and LU-4.5 focuses development along high quality transit corridors to reduce VMT. Mobility Policy M-4.6 promotes reductions in automobile trips and VMT by encouraging transit use and nonmotorized transportation as alternatives to augmenting roadway capacity.

Proposed Project Impact Analysis

The VMT Screening Assessment prepared for the proposed project applies the approach and methodology consistent with the City's TIS Guidelines described in Section 4.13.4, Methodology, above. Project screening is used to determine if a project will be required to conduct a detailed VMT analysis. As identified in the VMT Screening Assessment, the project was screened out from a VMT assessment based on the following analysis:

- *Projects which serve the local community and have the potential to reduce VMT, such as neighborhood K-12 schools and local-serving retail less than 50,000 square feet.* The project would have a local service retail of more than 50,000 square feet. Therefore, the project would not screen out from a VMT assessment under this criterion.
- *Projects that generate less than 110 net daily trips.* As shown in Table 4.13-2: Project Trip Generation Forecast Summary, the project would generate a net increase of 3,018 net daily trips at full buildout, which is more than 110 net daily trips. Therefore, the project would not screen out from a VMT assessment under this criterion.

Table 4.13-2: Project Trip Generation Forecast Summary

	Land Use	Daily 2-Way Trips
Existing	• 40,743 sf retail • 47,301 sf furniture store • 51,990 sf quality restaurant • 5,653 sf high-turnover restaurant • 18,362 sf movie theater	-8,676
Proposed	• 62,000 sf retail • 18,000 sf supermarket • 1,583 du multi-family housing • 300,000 sf office	11,694
	Total Net Project Generation:	**3,018**

Source: Linscott Law & Greenspan Engineers, April 2025, Vehicle Miles Traveled (VMT) Screening Assessment for the Village Santa Ana Project (refer to Appendix H).

- *Projects located in a low-VMT generating Traffic Analysis Zone*. The project is not located within a low-VMT generating Traffic Analysis Zone. Therefore, the project would not screen out from a VMT assessment under this criterion.
- *Projects located within a TPA*. The project is located within a TPA, due to the many high-quality transit routes in the project area. Therefore, the project would screen out from a VMT assessment under this criterion and is further discussed below.

Projects Located within a TPA

Transit Priority Area

As discussed in Section 4.13.2, Environmental Setting, the project site is located within a half-mile of OCTA transit stops along MacArthur Boulevard, Bristol Street, Sunflower Avenue, Plaza Drive, and Bear Street, for the following bus lines: Local Route 55, Local Route 57, Local Route 76, Local Route 86, and Community Route 150. OCTA Local Route 57 which runs via State College Boulevard and Bristol Street from Brea to Newport Beach, has an approximately 15-minute headway and is therefore considered a high-quality transit corridor. As such, the project is located within a TPA.

Per the City's TIS Guidelines, projects located within TPAs have the potential to reduce VMT/SP and result in a less than significant transportation impact. In accordance with the City's TIS Guidelines, a project within a TPA must also complete a secondary screening to verify the proposed project's consistency with the assumptions from the RTP/SCS. This consistency can be completed by a land use review (e.g., are the proposed land uses already included in the RTP/SCS) or a VMT/SP review (e.g., does the resulting land use increase or decrease the VMT/SP in the Traffic Analysis Zone compared to the RTP/SCS assumptions) as discussed below.

Land Use Review

The Connect SoCal RTP/SCS recognizes that development within Priority Growth Areas, including TPAs, supports mode shift and shortened trip distances. The project site is within an identified Priority Growth Area, where urban development can contribute to reduced VMT and

associated emissions.[5] The project is consistent with the land uses in the RTP/SCS, which assumed the project site would be constructed as an urban, mixed use development that would reduce area VMT, consistent with the TPA designation. The District Center designation permits broad use types, including commercial, retail, hospitality, residential and office uses that facilitate high intensity development with an urban character. The project proposes diverse uses consistent with those permitted by the General Plan (i.e., residential, hospitality, local serving retail and commercial uses). Additionally, the project would implement development to achieve an urban character and would be consistent with the land uses assumed for the project site as part of the RTP/SCS. Furthermore, as discussed in Section 4.10, Population and Housing, the proposed project would be consistent with the increase the population in the South Bristol Street Focus Area proposed in the General Plan through construction of new residential units and the creation of new employment opportunities.

An evaluation of the project's consistency with SCAG's Connect SoCal RTP/SCS is detailed in Table 4.13-3: Project Consistency with SCAG's Connect SoCal RTP/SCS Policies.

Table 4.13-3: Project Consistency with SCAG's Connect SoCal RTP/SCS Policies

2020–2045 RTP/SCS Policies	Project Consistency with Policy
G1: Encourage regional economic prosperity and global competitiveness.	*Consistent:* The project promotes economic growth for the City and region with a diversity of new housing, office, and commercial uses.
G2: Improve mobility, accessibility, reliability and travel safety for people and goods.	*Consistent:* The project would provide a fitness loop consisting of an outer loop around the perimeter of The Village and an inner loop connecting to the gardens, open space, and retail areas within the site, enabling runners, pedestrians, and other users to reach all the spaces that The Village has to offer. The project would also construct a new Class IV cycle track along Sunflower Avenue and a new Class I bike path along Bear Street. The project would also provide a new internal network of private roadways to support mobility throughout The Village to encourage the movement of people and goods to and from the residences and businesses and to provide access to public utilities.
G3: Enhance the preservation, security and resilience of the regional transportation system.	*Consistent:* The project is located within a TPA and would preserve the existing public transit connections at the site. The project would propose additional pedestrian facilities and bikeways to provide additional multi-modal connections to and through the project site.
G4: Increase person and good movement and travel choices within the transportation system.	*Consistent:* The project would implement complete streets which meet the needs of all users of the roadway including pedestrians (through walkways and widened sidewalks), bicyclists (addition of bike facilities around the project site), users of public transit (preserving and relocating the existing transit stops in collaboration with OCTA), motorists (maintaining lanes while also considering sufficient turn lanes and traffic calming strategies), as well as the children, the elderly, and the disabled (accommodations made through loading zones,

[5] Southern California Association of Governments, 2021, Priority Growth Areas SCAG Region, available at: https://hub.scag.ca.gov/datasets/0da9bc5fba2d4b409c8f166166bf8888/explore?location=33.695493%2C-117.887451%2C16.02, accessed August 2024.

Table 4.13-3: Project Consistency with SCAG's Connect SoCal RTP/SCS Policies

2020–2045 RTP/SCS Policies	Project Consistency with Policy
	enhanced sidewalks and crosswalks, and improved landscape buffers to the road). The project would also provide a new internal network of private roadways to support mobility throughout The Village to encourage the movement of people and goods to and from the residences and businesses and to provide access to public utilities.
G5: Reduce greenhouse gas emissions and improve air quality.	*Consistent:* The project would redevelop a conventional commercial area into a mixed-use development that includes residential, office, and commercial retail uses where people would be able to live and work locally and utilize active transportation (e.g., walk or bike) to travel, thus reducing VMT and GHG emissions and improving air quality.
G6: Support healthy and equitable communities.	*Consistent:* The project supports healthy lifestyles of the people who live and work in the area by providing approximately 7.5 acres of publicly accessible open space and a diversity of outdoor spaces and activities, such as the proposed fitness loop, consisting of an outer loop around the perimeter of The Village and an inner loop connecting to the gardens, open space, and retail areas within the site, enabling runners, pedestrians, and other users to reach all the spaces that The Village has to offer. The project would also include improvements to bicycle facilities, encouraging travel by biking and thus, supporting healthy communities.
G7: Adapt to a changing climate and support an integrated regional development pattern and transportation network.	*Consistent:* The project would be developed within an existing urbanized area that provides an established transportation network of roads, freeways, and transit that provide local and regional access to the area, including the project site. Specifically, the project would include a mixed-use development consisting of residential units, retail uses, and office space within a TPA. The project would also involve improvements to and connections for the circulation network for bicycle, pedestrian, and transit facilities encouraging an integrated transportation network. In addition, the project would support the reduction of vehicle miles traveled and dependency on single-occupancy vehicles.
G8: Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	*Consistent:* The project would provide opportunities for ridesharing and other multi-modal types of transportation including bikeways in and around the project site and pedestrian paths leading to the central commercial area. The project would also provide parking spaces that would be designated and equipped with charging receptacles for electric vehicles for residential and nonresidential uses.

Source: Southern California Association of Governments, September 3, 2020, 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy, available at: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176.

VMT/SP Review

While the proposed project would introduce a new population to the South Bristol Street Focus Area, the population growth from the proposed project would not exceed the growth identified in the GPU PEIR as the land use designations would be consistent with the GPU PEIR. As such, the projected VMT for buildout of the project site was analyzed in the GPU PEIR. Section 4.13.4 states that a significant impact would occur if the project VMT/SP exceeds 15 percent below the existing Countywide average VMT/SP. As discussed in Table 4.13-1: VMT Summary, the City's projected VMT/SP upon buildout of the GPU in 2045 is 20.3. The VMT impact threshold of 15 percent below the existing Orange County VMT/SP of 25.9 is 22.0 VMT/SP. As such, the VMT/SP of the 2024 GPU buildout which considers the proposed project (20.3) would be less than the VMT impact threshold (22.0), and the impact would be less than significant. Additionally, the proposed project would be consistent with the land use designation proposed in the GPU PEIR; thus, no new VMT would occur that was not previously analyzed in the GPU PEIR.

Summary

In summary, the project is located in a TPA, and the proposed land uses are consistent with the RTP/SCS. Additionally, the project would not result in an increase in the VMT/SP as what was analyzed in the GPU PEIR. The TIS Guidelines identifies areas in the City that cannot be screened out because they are not located in a TPA and would, therefore, require a VMT analysis; however, the project is not located within such an area and is therefore screened out of VMT analysis. As such, consistent with the GPU PEIR, impacts related to VMT as a result of the proposed project would be less than significant.

Therefore, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to State CEQA Guidelines Section 15064.3, subdivision (b) disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold T-2 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold T-2 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

T-3 Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? *[GPU PEIR Impact 5.16-3]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

Impact 5.16-3 of the GPU PEIR determined that impacts related to potentially hazardous conditions and emergency access would be less than significant with the implementation of RR T-2 and GPU Mobility Policies M-1.7, M-3.9, M-5.7, and M-5.8. These requirements and policies require compliance with Orange County Fire Authority's Fire Prevention Guidelines and the

California Fire Code (RR T-2), mitigation for congestion and safety (Policy M-1.7), traffic calming while maintaining emergency response access (Policy M-3.9), maintaining traffic infrastructure (Policy M-5.7), and prioritizing safety of all users when designing transportation improvements (Policy M-5.8). Additionally, as stated in the GPU PEIR, all circulation network improvements would be subject to review and future consideration. Roadway improvements would have to adhere to the City's circulation plan and roadway design guidelines and design guidelines of the California Manual of Uniform Traffic Control Devices.

Proposed Project Impact Analysis

As discussed in Thresholds T-1 and T-2, the proposed project would change circulation and mobility throughout the project site by providing sidewalks, pedestrian paths, and a bicycle network. Additionally, the proposed project would include improvements to existing roadways, including Sunflower Avenue, Plaza Drive, and Bear Street. All roadway improvements and new roadway construction would be constructed in accordance with the Orange County Fire Authority standards and requirements, the Santa Ana Citywide Design Guidelines, and design guidelines of the California Manual of Uniform Traffic Control Devices. Per the City's engineering standards and plans, a traffic control plan is required whenever work is to be performed within the public right-of-way and is deemed necessary by the City's Traffic Engineer. Construction work cannot start until the traffic control plan has been approved by the City Traffic Engineer.[6] As such, during construction, a traffic control plan would be implemented to ensure that adequate and safe access is available within and near the project site. Appropriate construction traffic control measures would be utilized to ensure that emergency access to the project site and the safe circulation of all modes of transportation is maintained on adjacent rights-of-way. Consistent with the GPU PEIR, circulation network improvements are subject to review by the City's Public Works engineering staff, which would ensure that roadway and circulation network improvements meet geometric design standards and, thus, would not substantially increase hazards. Accordingly, the proposed project would comply with RR T-2 and GPU Mobility Policies, M-1.7, M-3.9, M-5.7, and M-5.8, which would minimize hazards to all roadway users. Lastly, the proposed project is consistent with the land use designation of the site and, thus, would not introduce any incompatible uses that would result in transportation hazards. Therefore, consistent with the GPU PEIR, impacts related to substantially increased hazards due to a geometric design feature or incompatible uses would be less than significant.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to circulation hazards disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold T-3 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold T-3 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

[6] City of Santa Ana Public Works, 2009, Section 1: Street Standards, 1125F: Traffic Control Plan, available at: https://storage.googleapis.com/proudcity/santaanaca/uploads/2022/02/1125F-Traffic-Control-Plan.pdf.

T-4 Would the project result in inadequate emergency access? *[GPU PEIR Impact 5.16-3]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

Refer to Threshold T-3 for Impact 5.16-3 of the GPU PEIR's analysis of impacts related to emergency access. As discussed therein, the GPU PEIR would result in less than significant impacts to emergency access with the implementation of RR T-2 and GPU Mobility Policies M-1.7, M-3.9, M-5.7, and M-5.8. Additionally, as stated in the GPU PEIR, all circulation network improvements would be subject to review and future consideration. Roadway improvements would have to adhere to the City's circulation plan and roadway design guidelines and design guidelines of the California Manual of Uniform Traffic Control Devices.

Proposed Project Impact Analysis

As discussed in Chapter 3, Project Description, the proposed public and private roadways throughout the project site would be designed to accommodate emergency vehicles for fire, ambulance, and police services. The roadways would not have restricted access such as gates that would prevent emergency vehicles from reaching the intended destinations. Roadway improvements and new roadway construction would be constructed in accordance with the Orange County Fire Authority standards and requirements. During construction, a traffic control plan would be implemented to ensure that adequate and safe access is available within and near the project site. Appropriate construction traffic control measures would be utilized to ensure that emergency access to the project site and the safe circulation of all modes of transportation is maintained on adjacent rights-of-way. Additionally, the proposed project would comply with RR T-2 and GPU Mobility Policies M-1.7, M-3.9, M-5.7, and M-5.8 related to emergency access. Therefore, consistent with the impacts in the GPU PEIR, impacts related to inadequate emergency access would be less than significant for the proposed project.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to emergency access disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold T-4 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold T-4 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

4.13.6 CUMULATIVE IMPACTS

IMPACT ANALYSIS

The geographic context for the GPU PEIR's analysis of cumulative impacts to transportation considers the regional transportation improvements identified in the Orange County Transportation Authority Model 5.0 and by SCAG. As such, the cumulative study area for transportation includes the development of the projections contained within the GPU PEIR and the 32 related projects, as indicated in Table 4-1: List of Related Projects, in Chapter 4, Environmental Analysis.[7]

Consistency with a Program, Plan, Ordinance, or Policy Addressing the Circulation System

GPU PEIR Impact Summary

Impact 5.16-1 of the GPU PEIR concluded that the GPU incorporates future networks and policies related to supporting complete streets, active transportation, and transit, bicycles, and pedestrians in the City which are consistent with regional and local planning efforts. The GPU PEIR did not identify any significant cumulative impacts related to consistency with a program, plan, ordinance, or policy addressing the circulation system.

Proposed Project Impact Analysis

Cumulative development under the GPU buildout and related projects, including surrounding jurisdictions for the Cities of Costa Mesa and Irvine, would be separately reviewed and approved by the respective jurisdiction to ensure their consistency with applicable programs, plans, ordinances, and policies. With review of project consistency for GPU buildout and the related projects, cumulative impacts related to consistency of applicable programs, plans, ordinances, and policies would be less than significant.

As determined under the discussion of Threshold T-1, the proposed project would connect to the existing circulation system while providing new facilities to enhance the use of public transit, pedestrian, and bicycle mobility and would not conflict with a plan, ordinance, or policy addressing circulation. Therefore, the proposed project's impacts related to consistency with an applicable program, plan, ordinance, or policy would not be cumulatively considerable, and therefore, cumulative impacts would be less than significant.

VMT Analysis

GPU PEIR Impact Summary

Impact 5.16-2 of the GPU PEIR concluded that the City's projected VMT/SP at buildout of the GPU in 2045 (i.e., 20.3 VMT/SP) would be less than the defined threshold of 15 percent below the existing countywide average VMT/SP (i.e., 22.0 VMT/SP). Moreover, the GPU includes policies that promote the reduction of VMT including Land Use Policies LU-2.5 and LU-4.5 and Mobility Policy M-4.6. The GPU PEIR did not identify any significant cumulative impacts related to VMT.

Proposed Project Impact Analysis

A development project would have a cumulative VMT impact if it were deemed inconsistent with the 2020-2045 RTP/SCS or, specifically for GPU buildout and the related projects within the City,

[7] Twenty of the 32 related projects are located within the City of Santa Ana, and thus, are included as part of the GPU buildout.

if the project caused total daily VMT within the City to be higher than the no build alternative under cumulative conditions. Projects resulting from GPU buildout and related projects within the City of Santa Ana would undergo a VMT Screening Assessment in accordance with the City's TIS Guidelines to determine if a VMT analysis is necessary. Similarly, the related projects within the City of Irvine would adhere to the City of Irvine Traffic Study Guidelines, and the related projects within the City of Costa Mesa would adhere to the City of Costa Mesa Transportation Impact Analysis Guidelines to conduct a VMT Impact Analysis as necessary.[8,9] GPU buildout and the related projects would require appropriate traffic studies to determine VMT impacts as necessary as part of the development review process, which would ensure that cumulative impacts related to VMT would be less than significant.

As determined under the discussion of Threshold T-2 above, the proposed project would not result in a significant VMT impact as it would be consistent with SCAG's Connect SoCal RTP/SCS. Additionally, the VMT/SP of the 2024 GPU buildout which considers the proposed project would be less than the VMT impact threshold.

Furthermore, the project would provide public transit options to future project users to further reduce VMT. Therefore, the proposed project's contribution to cumulative impacts related to VMT would not be cumulatively considerable, and therefore, cumulative impacts related to VMT would be less than significant.

Design and Emergency Access Hazards

GPU PEIR Impact Summary

Impact 5.16-3 of the GPU PEIR concluded that implementation of RRs and Mobility policies would not result in hazardous conditions, create conflicting uses, or cause a detriment to emergency vehicle access. The GPU PEIR did not identify any significant cumulative impacts related to design and emergency access hazards.

Proposed Project Impact Analysis

GPU buildout and the related projects would be subject to site-specific reviews, including reviews by building and fire protection authorities that would require compliance with existing building and fire code standards. In addition, design and emergency access hazards are typically localized and only affect the immediate vicinity of a project. With completion of site-specific reviews and required approvals, cumulative impacts related to design and emergency access hazards from GPU buildout and the related projects would be less than significant.

The evaluation of Threshold T-3 and Threshold T-4 concluded that the proposed project would result in less than significant impacts related to incompatible uses, hazards due to roadway design, and emergency access. The proposed roadway improvements and internal circulation network would be designed in conformance with the City's design standards through the City's development permitting process as well as the Orange County Fire Authority's design standards to ensure that no potentially hazardous design features or inadequate emergency access would be introduced by the proposed project. Therefore, the proposed project's contribution to cumulative impacts associated with design and emergency access hazards would not be cumulatively considerable, and as such, cumulative impacts would be less than significant.

[8] City of Irvine, 2023, Traffic Study Guidelines, available at: https://legacy.cityofirvine.org/civica/filebank/blobdload.asp?BlobID=32554.

[9] City of Costa Mesa, 2020, Transportation Impact Analysis Guidelines, available at: http://ftp.costamesaca.gov/costamesaca/planningcommission/agenda/2020/2020-10-12/PH-3-Att-3.pdf.

MITIGATION MEASURES

Cumulative impacts related to transportation would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Cumulative impacts related to transportation were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

4.14 TRIBAL CULTURAL RESOURCES

This section evaluates potential impacts to tribal cultural resources that may result from implementation of the proposed project. Specifically, this section contains a summary of the federal, state, and local regulations related to tribal cultural resources; a description of the existing setting as it pertains to tribal cultural resources; and an analysis of the potential impacts related to tribal cultural resources associated with implementation of the proposed project as well as identification of mitigation measures. As the project pursues buildout of part of the City's GPU Land Use Plan, which was analyzed in the GPU PEIR, this section compares the project's impacts with the impacts identified in the GPU PEIR. The analysis in this section is based on tribal consultation conducted by the City of Santa Ana (City) for the project and the Cultural and Paleontological Resources Identification Memorandum prepared for the project by Michael Baker International, Inc. (August 28, 2024), which is included as Appendix C.

4.14.1 REGULATORY FRAMEWORK

FEDERAL

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 (25 US Code Sections 3001 et seq.) protects human remains, funerary objects, sacred objects, and items of cultural patrimony of indigenous peoples on federal and tribal lands. NAGPRA stipulates priorities for assigning ownership or control of such cultural items excavated or discovered on federal or tribal lands, or in the possession and control of an agency that has received federal funding.

NAGPRA also provides for the repatriation of human remains and associated items previously collected from federal lands and in the possession or control of a federal agency or federally funded repository. Implementing regulations are codified in 43 CFR (Code of Federal Regulations) Part 10. In addition to defining procedures for dealing with previously collected human remains and associated items, these regulations outline procedures for negotiating plans of action or comprehensive agreements for treatment of human remains and associated items encountered in intentional excavations, or inadvertent discoveries on federal or tribal lands.

National Historic Preservation Act of 1966 and the National Register of Historic Places

Enacted in 1966 and amended most recently in 2014, the National Historic Preservation Act (NHPA) instituted a multifaceted program administered by the Secretary of the Interior to encourage sound preservation policies of the nation's cultural resources at the federal, state, and local levels (54 US Code Sections 300101 et seq.). The NHPA authorized the expansion and maintenance of the National Register of Historic Places, established the position of State Historic Preservation Officer, and provided for the designation of State Review Boards. The NHPA also set up a mechanism to certify local governments to carry out the goals of the NHPA, assisted Native American tribes to preserve their cultural heritage, and created the Advisory Council on Historic Preservation.

STATE

California Public Resources Code

Archaeological resources are protected pursuant to a wide variety of state policies and regulations enumerated under the California Public Resources Code (PRC). In addition, cultural resources

are recognized as nonrenewable resources and therefore receive protection under the PRC and CEQA.

PRC Sections 5097.9 to 5097.991 provide protection to Native American historical and cultural resources and sacred sites and identify the powers and duties of the Native American Heritage Commission (NAHC). These sections also require notification to descendants of discoveries of Native American human remains and provide for treatment and disposition of human remains and associated grave goods.

California Senate Bill 18

Senate Bill 18 (SB 18) (California Government Code Section 65352.3) sets forth requirements for local governments to consult with California Native American tribes identified by the California NAHC to aid in the protection of tribal cultural resources. The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early stage of planning to protect, or mitigate impacts on, tribal cultural resources. As provided in the Governor's Office of Planning and Research 2005 *Tribal Consultation Guidelines: Supplement to General Plan Guidelines*, the following list briefly identifies the following contact and notification responsibilities of local governments:

- Prior to the adoption or any amendment of a general plan or specific plan, a local government must notify the appropriate tribes on the contact list maintained by the NAHC of the opportunity to conduct consultations for the purpose of preserving, or mitigating impacts to, cultural places located on land within the local government's jurisdiction that is affected by the proposed plan adoption or amendment. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the tribe (Government Code Section 65352.3).
- Prior to the adoption or substantial amendment of a general plan or specific plan, a local government must refer the proposed action to those tribes that are on the NAHC contact list and have traditional lands located within the city or county's jurisdiction. The referral must allow a 45-day comment period (Government Code Section 65352). Notice must be sent regardless of whether prior consultation has taken place. Such notice does not initiate a new consultation process.
- Local government must send a notice of a public hearing, at least 10 days prior to the hearing, to tribes who have filed a written request for such notice (Government Code Section 65092).

Since the proposed project includes approval of the Village Santa Ana Specific Plan, it is subject to the statutory requirements of SB 18 Tribal Consultation Guidelines.

California Assembly Bill 52

Assembly Bill 52 (AB 52) established a requirement under the State CEQA Guidelines to consider "tribal cultural values, as well as scientific and archaeological values when determining impacts and mitigation." PRC Section 21074(a) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" that are either "included or determined to be eligible for inclusion in the California Register of Historical Resources" or "in a local register of historical resources." Additionally, defined cultural landscapes, historical resources, and archaeological resources may be considered tribal cultural resources pursuant to PRC Section 21074(b), (c). The lead agency may also in its discretion treat a resource as a tribal cultural resource if it is supported with substantial evidence.

Projects for which a notice of preparation for a Draft EIR was filed on or after July 1, 2015, are required to have lead agencies offer California Native American tribes traditionally and culturally affiliated with the project site consultation on CEQA documents prior to submitting an EIR in order to protect tribal cultural resources. PRC Section 21080.3.1(b) defines "consultation" as "the meaningful and timely process of seeking, discussing, and considering carefully the views of others, in a manner that is cognizant of all parties' cultural values and, where feasible, seeking agreement." Consultation must "be conducted in a way that is mutually respectful of each party's sovereignty [and] recognize the tribes' potential needs for confidentiality with respect to places that have traditional tribal cultural significance." The consultation process is outlined as follows:

1. California Native American tribes traditionally and culturally affiliated with the project area submit written requests to participate in consultations.
2. Lead agencies are required to provide formal notice to the California Native American tribes that requested to participate within 14 days of the lead agency's determination that an application package is complete or decision to undertake a project.
3. California Native American tribes have 30 days from receipt of notification to request consultation on a project.
4. Lead agencies initiate consultations within 30 days of receiving a California Native American tribe's request for consultation on a project.
5. Consultations are complete when the lead agencies and California Native tribes participating have agreed on measures to mitigate or avoid a significant impact on a tribal cultural resources, or after a reasonable effort in good faith has been made and a party concludes that a mutual agreement cannot be reached (PRC Sections 21082.3(a), (b)(1)-(2); 21080.3.1(b)(1)).

AB 52 requires that the CEQA document disclose significant impacts on tribal cultural resources and discuss feasible alternatives or mitigation to avoid or lessen an impact.

California Health and Safety Code, Section 7050.5 and California Public Resources Code Section 5097

California Health and Safety Code Section 7050.5, and PRC Sections 5097.94 and 5097.98 outline procedures to be followed in the event human remains are discovered during the course of California projects. If human remains are encountered, all work must stop at that location and the County Coroner must be immediately notified and advised of the finding. The County Coroner would investigate "the manner and cause of any death" and make recommendations concerning treatment of the human remains. The County Coroner must make their determination within two working days of being notified. If the human remains are determined to be Native American, the County Coroner shall contact the California Native American Heritage Commission. The Commission would in turn "…immediately notify those persons it believes to be most likely descended from the deceased Native American." The descendants would then inspect the site and make recommendations for the disposition of the discovered human remains. This recommendation from the most likely descendants may include the scientific analysis of the remains and associated items.

LOCAL

Santa Ana General Plan Update

The City's GPU includes regulatory requirements (RR), goals, and policies related to tribal cultural resources. The following RRs and Historic Preservation Element goals and policies are applicable to the proposed project:

Regulatory Requirements

RR TCR-1: As per AB 52, within 14 days of deciding to undertake a project or determining that a project application is complete, the lead agency must provide formal written notification to all tribes who have requested it.

RR CUL-1: California Health and Safety Code Section 7050.5 requires that if human remains are discovered within the proposed project site, disturbance of the site shall halt and remain halted until the coroner has investigated the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes or has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

Historic Preservation Element

Goal HP-1 Historic Areas and Resources: Preserve and enhance Santa Ana's historic areas and resources to maintain a unique sense of place.

- *Policy HP-1.4 Protecting Resources:* Support land use plans and development proposals that actively protect historic and cultural resources. Preserve tribal, archeological, and paleontological resources for their cultural importance to communities as well as their research and educational potential.
- *Policy HP 1.7 Preserving Human Element:* Encourage participation in oral history programs to capture Santa Ana's historic and cultural narrative.

Goal HP-2 Cultural and Historic Resources: Promote the City's cultural and historic resources to advance Santa Ana's role in Southern California history.

- *Policy HP 2.3 Commemorating History:* Support efforts to identify and commemorate historic structures and sites and historically sensitive areas in Santa Ana through murals, plaques, and educational exhibits.

Goal HP-3 Historic Preservation: Develop, implement, and maintain a nationally recognized historic preservation program.

- *Policy 3.1 Historic Resource Survey*: Maintain a comprehensive program to inventory and preserve historic and cultural resources, including heritage landscape and trees.

4.14.2 ENVIRONMENTAL SETTING

PROJECT SITE

Located within the South Bristol Street Focus Area in the City of Santa Ana, the 17.2-acre project site is currently developed with the South Coast Plaza Village, which is a shopping center occupied by seven buildings comprising approximately 164,049 square feet of retail/restaurant

uses, offices, and a cinema building. The property also provides surface parking, a variety of trees, and a half-acre lawn area. South Plaza Drive bisects the eastern and western portions of the project site. No residential uses currently exist on the project site.

ETHNOHISTORIC AND HISTORIC BACKGROUND

Spanish explorers first visited the coast of southern California in 1542. European settlement began in the area in 1769, and in 1771 Franciscan friars established Mission San Gabriel Arcángel, approximately 30 miles northwest of the project site. The Franciscans called the local Native Americans Gabrielinos after the mission. Gabrielino territory included the Los Angeles Basin, parts of the Santa Ana and Santa Monica Mountains, and San Clemente, San Nicolas, and Santa Catalina Islands. Gabrielino villages were most common along the coast and along the region's major rivers, where villages formed of domed semipermanent structures. The project site is located between two known Gabrieleño village locations: the Pasbenga, approximately 4 miles north, and the Lukúpa, approximately 5.5 miles southwest.[1]

Additionally, the Mission San Juan Capistrano identified the local Native Americans as Juaneño. Many contemporary Juaneño, as well as coastal Luiseño, identify themselves as descendants of the indigenous people living in the local area, termed the Acjachemen Nation. The Juaneño and Luiseño languages are dialects of one another. The Juaneño and Luiseño language, as well as that of the Gabrielino to the north, was derived from the Takic family, part of the Uto-Aztecan linguistic stock.[2,3]

The majority of California's coastal Native American populations had entered the mission system by the early 1800s.[4] It is known that 1,138 local Native Americans, consisting primarily of Acjachemen but including Gabrielino, coastal and interior Luiseño, Serrano, and Cahuilla, resided at Mission San Juan Capistrano in the year 1810.[5] Due to introduced diseases that led to population decline and the Spanish use of the land for agriculture and grazing, the Gabrielinos' reliance on their traditional lifestyle grew increasingly untenable. In 1810, the 63,414-acre Rancho Santiago de Santa Ana, including the project site, was given as a land grant where Native Americans continued to live on and made up much of the rancho's work force.[6] California's Native Americans sometimes preferred to live as vaqueros and laborers on the region's vast land grants in order to avoid living more directly under the mission system.[7]

In 1821, Mexico won its independence from Spain. In 1834, the missions were secularized, and their lands divided up among politically connected elites. Little of the missions' lands and wealth went to the Native Americans. More than 600 ranchos were granted between 1833 and 1846 as the Mexican government sought to solidify its authority over Alta California amid fears of intrusion by the United States. Alta California was captured by the United States during the Mexican American War of 1846–1848. The discovery of gold in California led to a population boom in the

1 McCawley, William, 1996, The First Angelinos: The Gabrielino Indians of Los Angeles, Banning, CA: Malki Museum Press.
2 Bean, Lowell J., and Florence Shipek, 1978, Luiseño. In California, edited by Robert F. Heizer, pp. 550-563. Handbook of North American Indians, Vol. 8, William C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.
3 Kroeber, Alfred L., 1925, Handbook of the Indians of California. Bureau of American Ethnology Bulletin 78, Smithsonian Institution, Washington D.C.
4 Jackson, Robert, 1999, Agriculture, Drought & Chumash Congregation in the California, Missions (1782-1834).
5 Englehardt, Zephyrin, 1922, San Juan Capistrano Mission. Los Angeles: The Standard Printing Co.
6 Huntington Library, 1860, Plat of the Santiago de Santa Ana Rancho, available at: https://hdl.huntington.org/digital/collection/p15150coll4/id/11636, accessed February 2023.
7 Phillips, George Harwood, 2010, Vineyards and Vaqueros: Indian Labor and the Economic Expansion of Southern California, 1771–1877.

1850s and 1860s. In 1869, William H. Spurgeon purchased approximately 70 acres of land and plotted a townsite, named Santa Ana in the tradition of Rancho Santiago de Santa Ana.[8] After nearly two decades of growth, hastened by the arrival of the Southern Pacific Railroad in 1877, Santa Ana was officially incorporated as a city in 1886, and Orange County was formed in 1889.[9,10,11]

Historical maps indicate that the project site and vicinity remained undeveloped well into the twentieth century. The earliest U.S. Geological Survey maps, which date to the late nineteenth and early twentieth centuries, show the project site as undeveloped. The closest body of water was the braided channel of the Santa Ana River, approximately 0.3-mile northwest of the project site. Swamps were also located approximately 0.6-mile south of the project site.[12]

Outside the City's historic core, originally bound by First Street, Broadway, Seventh Street, and Spurgeon Street, Santa Ana remained predominantly agrarian and sparsely developed through much of the first half of the twentieth century. This was particularly true of the area surrounding the project site. Historical maps and aerial photographs depict that the landscape around the project site was previously characterized by large agricultural fields interspersed by modest, infrequent residences.[13,14,15]

Like many cities and towns in California, Santa Ana experienced a period of unprecedented growth during and following World War II as a result of wartime mobilization, improvement of regional transportation networks, and an abundance of local recreational opportunities. The population of Santa Ana exploded from 45,433 residents in 1950 to more than 100,000 by 1960, which led to suburbanized development within the City. New residential suburbs and commercial centers on the outskirts of Santa Ana were built, connected by the construction or enhancement of highways. Near the project site, California State Route 55 was completed in 1962, Interstate 405 was completed in 1968, and State Route 73 was completed in the late 1970s. The project site was developed between 1972 and 1973, during the latter years of this period of mass suburbanization.[16,17,18]

SOUTH CENTRAL COASTAL INFORMATION CENTER RECORDS SEARCH

A records search conducted on February 1, 2023, at the South Central Coastal Information Center (SCCIC) of the California Historical Resources Inventory System indicated that no archaeological resources were previously recorded within the project site. A total of three resources are documented within the 0.5-mile search radius of the project site, as identified in Table 4.14-1:

8 Advisory Council on Historic Preservation, n.d., Santa Ana, California, available at: https://www.achp.gov/preserve-america/community/santa-ana-california, accessed March 2023.
9 Ibid.
10 Goddard and Goddard, 1988, Santa Ana History, available at: https://www.santaanahistory.com/santa-ana-history, accessed March 2023.
11 OrangeCounty.net, 2018, The History, available at: https://www.orangecounty.net/cities/SantaAna_history.html, accessed March 2023.
12 United States Geological Survey, 1896, 1901, Historical Maps.
13 United States Geological Survey, 1896, 1901, 1932, 1935, 1942, 1951, Historical Maps.
14 Orange County Archives, 1931, 1938, 1947, 1952, 1953, Aerial Photographs.
15 Goddard and Goddard, 1988, Santa Ana History, available at: https://www.santaanahistory.com/santa-ana-history, accessed March 2023.
16 Ibid.
17 Richardson, Rob, 1994, Santa Ana at 125, available at: https://www.santaanahistory.com/santaanaat125, accessed March 2023.
18 Kao, Kenneth, 2008, Orange County History, available at: https://www.ocf.berkeley.edu/~kennyk/oc/recent.html, accessed March 2023.

Cultural Resources within Project Vicinity. None of these resources are located within or adjacent to the project site.

Table 4.14-1: Cultural Resources within Project Vicinity

Resource Number	Description	Eligibility Status	Location in Relation to Project Site
P-30-100342	Isolate – Two historic period ceramic fragments	Unevaluated	Outside of project site
P-30-100343	Isolate – Historic period ceramic fragment	Unevaluated	Outside of project site
P-30-100344	Isolate – Historic period glass bottle fragment	Unevaluated	Outside of project site

Source: Michael Baker International, 2024, Cultural and Paleontological Identification Memorandum (Appendix C).

SACRED LANDS FILE SEARCH

Tribal cultural resources can include archaeological sites, built environment resources, locations of events or ceremonies, resource procurement areas, and natural landscape features with special significance to one or more indigenous groups. A Sacred Lands File (SLF) search request was submitted to the NAHC on December 22, 2022, for any Native American cultural resources that might be affected by the project. The NAHC responded on January 10, 2023, stating that there are no known/known sacred lands within the project site, and suggested that 10 Native American tribes be contacted for further information regarding the general area vicinity.

4.14.3 THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the State CEQA Guidelines, a project would have a significant impact related to tribal cultural resources if it would:

TCR-1 ***Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:***

- ***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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.***

4.14.4 METHODOLOGY

CULTURAL RESOURCES

Refer to Section 4.2, Cultural Resources, of this Supplemental EIR for a detailed discussion of the Cultural and Paleontological Resources Identification Memorandum (Appendix C) prepared for the proposed project. This memorandum included a SCCIC records search, literature and historical map review, Santa Ana Historical Preservation Society consultation, SLF search, built environment and archaeological field surveys, California Register of Historical Resources evaluation, and buried archaeological site sensitivity analysis.

TRIBAL CONSULTATION

As described above, in response to a SLF search request, the NAHC responded on January 10, 2023, stating that there are no known/known sacred lands within the project site, and requested that 10 Native American tribes be contacted for further information regarding the general area vicinity.

Additionally, in compliance with SB 18, AB 52, the NAHC request, and the GPU PEIR's RR TCR-1, the City sent letters on November 18, 2023, to the following Native American tribes that may have knowledge regarding tribal cultural resources in the project vicinity.

- Gabrieleño Band of Mission Indians – Kizh Nation
- Gabrieleno/Tongva San Gabriel Band of Mission Indians
- Gabrieleno/Tongva Nation
- Gabrielino Tongva Indians of California Tribal Council
- Gabrielino-Tongva Tribe
- Juaneno Band of Mission Indians Acjachemen Nation – Belardes
- Juaneno Band of Mission Indians Acjachemen Nation 84A
- Pala Band of Mission Indians
- Santa Rosa Band of Cahuilla Indians
- Soboba Band of Luiseno Indians

The City received a response for consultation from Gabrieleno Band of Mission Indians – Kizh Nation (Kizh Nation) on March 8, 2024. During consultation with the Kizh Nation, which occurred by email, the Kizh Nation provided recommended mitigation measures for the proposed project. No other responses were received from the contacted Native American tribes.

4.14.5 PROJECT IMPACTS

TCR-1 Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)? *[GPU PEIR Impact 5.17-1]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

Impact 5.17-1 of the GPU PEIR stated buildout of the GPU could cause a substantial adverse change in the significance of a tribal cultural resource listed in a register. The GPU PEIR's SLF search for the GPU yielded positive results, indicating that known tribal resources exist within the City of Santa Ana. Additionally, a SCCIC records search indicated that 23 archaeological resources were previously recorded within 0.5 mile of the City. Of these resources, eight archaeological resources were located within the City, which include four prehistoric sites with habitation debris and lithic scatters, one multicomponent site, and three historic isolates. While the City is urbanized and most areas have been developed, the plan area includes many locations that would have been favorable for prehistoric Native American occupation, and buried resources may remain in areas of minimal ground disturbance, such as parks, parking lots, and structures with shallow foundations. The GPU PEIR determined that future development which included ground disturbing activities allowed under the GPU could potentially impact and cause significant adverse impacts to portions of the City with sensitivity to tribal cultural resources. Future development could potentially unearth previously unknown or unrecorded tribal cultural resources. As such, GPU PEIR Mitigation Measures (MMs) CUL-4 through CUL-7 were included. GPU PEIR MMs CUL-1 through CUL-3 pertain to historic resources, which are not applicable to the project, as discussed in Section 4.2, Cultural Resources. Specifically, GPU PEIR MM CUL-4 would require an Archaeological Resources Assessment for projects with ground disturbance. The Cultural and Paleontological Resources Identification Memorandum (Appendix C) prepared for the proposed project included an archaeological resources assessment consistent with the requirements of the GPU PEIR MM CUL-4. GPU PEIR MM CUL-5 would require Phase II Testing and Evaluation investigation when potentially significant archaeological resources are identified and cannot be avoided. Pursuant to GPU PEIR MM CUL-6, if the archaeological assessment does not identify archaeological resources but finds the area to be highly sensitive for archaeological resources, a qualified archaeologist and a Native American monitor approved by a California Native American Tribe identified by the NAHC as culturally affiliated with a specific project area would monitor all ground-disturbing construction and pre-construction activities in areas of high sensitivity. Pursuant to GPU PEIR MM CUL-7, if the archaeological assessment does not identify potentially significant archaeological resources but the site has moderate sensitivity for archaeological resources, an archaeologist who meets the Secretary's Standards shall be retained on call, with measures to be implemented in the event of any discovery. According to the GPU PEIR, impacts related to tribal cultural resources would be reduced to less-than-significant levels with implementation of GPU PEIR MMs CUL-4 through CUL-7.

Proposed Project Impact Analysis

As described above, the project's SLF search yielded negative results. Additionally, as detailed in Section 4.2, Cultural Resources, of this Supplemental EIR, investigations including a records search conducted at the SCCIC, literature and historical map reviews, historical society and NAHC consultation, field survey, and California Register evaluation identified no historical or archaeological resources within the project site and a 0.5-mile radius. Based on the City's consultation with the Kizh Nation, due to the project site's location in an area where Native American tribes are known to have a cultural affiliation, there is the possibility that archaeological resources, including tribal cultural resources, could be encountered during ground disturbing construction activities. As detailed in the project's Cultural and Paleontological Resources Identification Memorandum (Appendix C), the sensitivity of the project site at the surface and near surface is considered low due to past disturbances. However, excavations for the project are anticipated to disturb a large part of the project site to a maximum depth of approximately 52 feet for the subsurface parking garage. The sensitivity for potential buried prehistoric archaeological sites increases in these undisturbed soils. Therefore, implementation of GPU PEIR MM CUL-6 would require monitoring during all ground-disturbing construction activity and pre-construction activities within previously undisturbed soils by a qualified archaeologist and a Native American monitor, worker training, and procedures in case of a find. In addition, project-specific MMs TCR-1 through TCR-3 are proposed for implementation as requested by the consulting tribe, Kizh Nation, to require procedures for Native American monitoring and to avoid potential impacts to tribal cultural resources that may be unearthed from project construction activities.

With implementation of the RRs, policies, GPU PEIR MM CUL-6, and project-specific MMs TCR-1 through TCR-3, project impacts to tribal cultural resources would be less than significant. Accordingly, impacts related to project buildout of the site would be consistent with the impact conclusions set forth in the GPU PEIR, which determined that impacts related to tribal cultural resources would be less than significant with the incorporation of mitigation.

For the reasons aforementioned, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be less than significant with incorporation of mitigation. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures. The project-specific mitigation measures would be preventative and implemented for inadvertent discoveries and are not required due to the project proposing new or more severe impacts to tribal cultural resources.

MITIGATION MEASURES

As discussed above, GPU PEIR MM CUL-6 and project-specific MMs TCR-1 through TCR-3 would be implemented to reduce potential significant impacts related to tribal cultural resources. The Cultural and Paleontological Resources Identification Memorandum prepared for the proposed project satisfies the requirements of the GPU PEIR MM CUL-4. GPU PEIR MMs CUL-1 through CUL-3 pertain to historic resources, which are not applicable to the project, as discussed in Section 4.2, Cultural Resources. GPU PEIR MM CUL-5 would not be applicable because a Phase I pedestrian survey was not required as the project site is fully landscaped and hardscaped with no exposed native soils, and thus, no potentially significant archaeological resources were identified. GPU PEIR MM CUL-7 would not be required for the project, as the project would implement GPU PEIR MM CUL-6 which requires archaeological and Native American monitoring.

GPU PEIR Mitigation Measure

GPU PEIR MM CUL-6:

If the archaeological assessment did not identify archaeological resources but found the area to be highly sensitive for archaeological resources, a qualified archaeologist and a Native American monitor approved by a California Native American Tribe identified by the Native American Heritage Commission as culturally affiliated with the project area shall monitor all ground-disturbing construction and pre-construction activities in areas with previously undisturbed soil of high sensitivity. The archaeologist shall inform all construction personnel prior to construction activities of the proper procedures in the event of an archaeological discovery. The training shall be held in conjunction with the project's initial on-site safety meeting and shall explain the importance and legal basis for the protection of significant archaeological resources. The Native American monitor shall be invited to participate in this training. In the event that archaeological resources (artifacts or features) are exposed during ground-disturbing activities, construction activities in the immediate vicinity of the discovery shall be halted while the resources are evaluated for significance by an archaeologist who meets the Secretary's Standards. and This will include tribal consultation and coordination with the Native American monitor in the case of a prehistoric archaeological resource or tribal resource. If the discovery proves to be significant, the long-term disposition of any collected materials should be determined in consultation with the affiliated tribe(s), where relevant; this could include curation with a recognized scientific or educational repository, transfer to the tribe, or respectful reinternment in an area designated by the tribe.

Project-Specific Mitigation Measures

MM TCR-1: Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities:

a. The project applicant shall retain a Native American monitor from or approved by the Gabrieleño Band of Mission Indians-Kizh Nation. The monitor shall be retained prior to the commencement of any "ground-disturbing activity" for the subject project at any project locations (i.e., both onsite and any offsite locations that are included in the project description/definition and/or required in connection with the proposed project, such as public improvement work). "Ground-disturbing activity" shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching.

b. A copy of the executed monitoring agreement shall be submitted to the Lead Agency prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.

c. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered tribal cultural resources, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or "TCR"), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant upon written request to the Tribe.

d. Onsite tribal monitoring shall conclude upon the earlier of the following (1) written confirmation to the Kizh from a designated point of contact for the project applicant or lead agency that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the project applicant or Lead Agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh tribal cultural resources.

MM TCR-2: Unanticipated Discovery of Tribal Cultural Resource Objects (Non-Funerary/Non-Ceremonial):

a. Upon discovery of any tribal cultural resources, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered tribal cultural resource has been fully assessed by the Kizh monitor in consultation with a qualified archaeologist. The Kizh will recover and retain all discovered tribal cultural resources in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes.

MM TCR-3: Unanticipated Discovery of Human Remains and Associated Funerary or Ceremonial Objects:

a. Native American human remains are defined in Public Resources Code Section 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.

b. If Native American human remains and/or grave goods are discovered or recognized on the project site, then Public Resources Code Section 5097.9 as well as Health and Safety Code Section 7050.5 shall be followed.

c. Human remains and grave/burial goods shall be treated alike per Public Resources Code Section 5097.98(d)(1) and (2).

d. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods.

e. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of GPU PEIR MM CUL-7 and project-specific MMs TCR-1 through TCR-3, impacts related to Threshold TCR-1 would be less than significant.

TCR-2 ***Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?*** *[GPU PEIR Impact 5.17-2]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

As discussed in Threshold TCR-1 above, the GPU PEIR determined that future development with ground disturbing activities allowed under the GPU could potentially impact and cause significant adverse impacts to portions of the City with sensitivity to tribal cultural resources. Future development could potentially unearth previously unknown or unrecorded tribal cultural resources. As such, impacts related to tribal cultural resources for the GPU PEIR would be reduced to less-than-significant levels with implementation of GPU PEIR MMs CUL-4 through CUL-7.

Proposed Project Impact Analysis

As described above in Threshold TCR-1, the project's SLF search yielded negative results and additional research identified no historical or archaeological resources within the project site and a 0.5-mile radius. The City's consultation with the Kizh Nation determined tribal cultural resources may potentially be encountered during ground disturbing construction activities. The potential to encounter buried prehistoric archaeological sites exists for excavation in undisturbed soils. Therefore, project-specific MMs TCR-1 through TCR-3 are proposed for implementation to require Native American monitoring during any ground disturbing activities on the project site and to avoid potential impacts to tribal cultural resources that may be unearthed from project construction activities.

With implementation of the RRs, policies, GPU PEIR MM CUL-6, and project-specific MMs TCR-1 through TCR-3, project impacts to tribal cultural resources would be less than significant. Accordingly, impacts related to project buildout of the site would be consistent with the impact conclusions set forth in the GPU PEIR, which determined that impacts related to tribal cultural resources would be less than significant with the incorporation of mitigation.

For the reasons aforementioned, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR, which were determined to be less than significant with the incorporation of mitigation. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures. The project-specific mitigation measures would be preventative and implemented for inadvertent discoveries and are not required due to the project proposing new or more severe impacts to tribal cultural resources.

MITIGATION MEASURES

As discussed above, GPU PEIR MM CUL-6 and project-specific MMs TCR-1 through TCR-3 would be implemented to reduce potential significant impacts related to tribal cultural resources.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of GPU PEIR MM CUL-6 and project-specific MMs TCR-1 through TCR-3, impacts related to Threshold TCR-2 would be less than significant.

4.14.6 CUMULATIVE IMPACTS

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to the GPU PEIR, the extent of analysis of cumulative impacts for tribal cultural resources is contiguous with the City and the sphere of influence boundary, which includes portions of the Santa Ana River Drainage Channel. The GPU PEIR did not identify any significant cumulative impacts related to tribal cultural resources.

Proposed Project Impact Analysis

The cumulative scenario for the proposed project includes buildout of the GPU and the 32 related projects.[19] The GPU PEIR identified a significant but mitigable impact on previously unrecorded tribal cultural resources, to which the related projects could incrementally contribute. As a result, the combined cumulative impact on tribal cultural resources is potentially significant. Such cumulative impacts from grading activities for projects within the City of Santa Ana would be reduced with the implementation of GPU PEIR MM CUL-4 through MM CUL-7. Additionally, the related projects located within Costa Mesa and Irvine would be required to comply with the tribal consultation requirements of SB 18 and AB 52 and adhere to their respective mitigation measures, as needed, to protect tribal cultural resources (e.g., Mitigation Measure CUL-2 was implemented for the City of Irvine 2045 GPU PEIR).[20] Given that the GPU buildout and related projects would be subject to their own project-specific impact analysis and required to incorporate feasible mitigation measures to reduce any potentially significant impacts to a less than significant level, the cumulative impacts on tribal cultural resources associated with GPU buildout and the related projects are considered less than significant.

As described above, the project site and vicinity are not known to contain tribal cultural resources. However, as discussed in the analysis for Threshold TCR-1, the excavation required for the proposed subsurface parking garage could encounter prehistoric archaeological sites containing tribal cultural resources. If tribal cultural resources are encountered during construction, the project has the potential to contribute to cumulative impacts. However, the proposed project would implement GPU PEIR MM CUL-6 and project-specific MMs TCR-1 through TCR-3, which would protect any discovered tribal cultural resources. With implementation of the mitigation measures, the proposed project's contribution to cumulative impacts on tribal cultural resources would not be cumulatively considerable, and therefore, would be less than significant.

[19] Twenty of the 32 related projects are located within the City of Santa Ana, and thus, are included as part of the GPU buildout.

[20] City of Irvine, 2024, General Plan Update Program Environmental Impact Report, adopted August 2024, available at: https://www.cityofirvine.org/community-development/current-general-plan.

MITIGATION MEASURES

GPU PEIR MM CUL-6 and project-specific MMs TCR-1 through TCR-3, as provided above, would be implemented by the project to reduce potential cumulative impacts related to tribal cultural resources.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Cumulative impacts related to tribal cultural resources were determined to be less than significant after implementation of GPU PEIR MM CUL-6 and project-specific MMs TCR-1 through TCR-3.

4.15 UTILITIES AND SERVICE SYSTEMS

This section describes the existing conditions and capacities for utilities and service systems related to water, wastewater, stormwater, dry utilities (electric, gas, and telecommunications), and solid waste. This section also analyzes the adequacy of existing supplies and infrastructure to meet project demand and describes relevant plans and regulations. As the project pursues buildout of part of the City's GPU Land Use Plan, which was analyzed in the GPU PEIR, this section compares the project's impacts with the impacts identified in the GPU PEIR. This section is based, in part, on the following reports prepared for the project:

- Preliminary Water Quality Management Plan prepared by Tait & Associates (September 2024), included as Appendix F;
- Hydraulic Model Evaluation prepared by AKEL Engineering (June 2024), included as Appendix I;
- Water Supply Assessment (WSA) prepared by Michael Baker International (September 2024), included as Appendix J; and
- Sewer Capacity Study prepared by Tait & Associates (April 2025), included as Appendix K.

4.15.1 REGULATORY FRAMEWORK

FEDERAL

Water

Safe Drinking Water Act

As mandated by the Safe Drinking Water Act passed in 1974, the United States Environmental Protection Agency (USEPA) regulates contaminants of concern to domestic water supply. Such contaminants are defined as those that pose a public health threat or that alter the aesthetic acceptability of the water. These types of contaminants are regulated by the USEPA standards called maximum contaminant levels. The amendments to the Safe Drinking Water Act, enacted in 1986, established an accelerated schedule for setting drinking water maximum contaminant levels. The USEPA has delegated responsibility for California's drinking water program to the State Water Resources Control Board (SWRCB) Division of Drinking Water. The SWRCB Division of Drinking Water is accountable to the USEPA for program implementation and for adoption of standards and regulations that are at least as stringent as those developed by the USEPA.

Wastewater and Stormwater

National Pollution Discharge Elimination System Permit

Section 402 of the Clean Water Act created the National Pollutant Discharge Elimination System (NPDES) regulatory program, which regulates point sources that discharge pollutants into waters of the United States. Point source dischargers must obtain a discharge permit from the proper authority (usually a state, sometimes the USEPA, a tribe, or a territory). The NPDES permits cover various industrial and municipal discharges, including discharges from storm sewer systems in larger cities, storm water associated with numerous kinds of industrial activity, runoff from construction sites disturbing more than one acre, and mining operations. "Indirect" dischargers send wastewater into a public sewer system, which carries it to the municipal sewage treatment plant before entering a surface water and are not required to obtain NPDES permits.

Solid Waste

Resource Conservation and Recovery Act Of 1976

The Resource Conservation and Recovery Act of 1976 (Title 40 of the Code of Federal Regulations), Part 258 contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the federal landfill criteria. The federal regulations address the location, operation, design (liners, leachate collection, run-off control, etc.), groundwater monitoring, and closure of landfills.

Dry Utilities

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 was enacted to improve vehicle fuel economy and help reduce dependence on foreign oil. Specifically, the act increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard, which requires fuel producers to use at least 36 billion gallons of biofuel in 2022 and reduces the nation's demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020, an increase in fuel economy standards of 40 percent. On June 21, 2023, the USEPA announced a final rule to establish biofuel volume requirements and associated percentage standards for cellulosic biofuel, biomass-based diesel, advanced biofuel, and total renewable fuel for the years 2023 to 2025. The act also sets energy efficiency standards for lighting and appliances.

Energy Policy Act of 2005

Passed in July 2005, the Energy Policy Act includes a comprehensive set of provisions to address energy issues. This act includes tax incentives for the following: energy conservation improvements in commercial and residential buildings; fossil fuel production and clean coal facilities; and construction and operation of nuclear power plants, among other things. Subsidies are also included for geothermal, wind energy, and other alternative energy producers.

Pipeline Inspection, Enforcement, and Protection Act of 2006

The Pipeline Inspection, Enforcement, and Protection Act confirms the commitment to the Integrity Management Program and other programs enacted in the Pipeline Safety Improvement Act of 2002.

The 2006 legislation includes provisions on preventing excavation damage to pipelines through the enhanced use and improved enforcement of state "One-Call" laws that preclude excavators from digging until they contact the state One-Call system to locate the underground pipelines; minimum standards for Integrity Management Programs for distribution pipelines (including installation of excess flow valves on single family residential service lines based on feasibility and risk); and standards for managing gas and hazardous liquid pipelines to reduce risks associated with human factors (e.g., fatigue).

STATE

Water

Urban Water Management Planning Act

In 1983, the California legislature enacted the Urban Water Management Planning Act. The requirements for Urban Water Management Plans (UWMP) are found in California Water Code Sections 10610-10656 and 10608. Every urban water supplier that either provides over 3,000 acre-feet of water annually or serves more than 3,000 urban connections is required to submit a

UWMP. In the UWMPs, urban water suppliers must assess the reliability of water sources over a 20-year planning time frame, describe demand management measures and water shortage contingency plans, and discuss the use and planned use of recycled water. The UWMP Act states that every urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. It is the act's intention to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied.

Sustainable Groundwater Management Act

In 2014, California enacted the Sustainable Groundwater Management Act (California Water Code Section 10720-10737.8 et seq.) to protect the State's groundwater resources in the long term. The legislation provides for the sustainable management of groundwater by requiring local agencies to form groundwater sustainability agencies and to develop and implement groundwater sustainability plans. The act requires groundwater sustainability agencies and groundwater sustainability plans for all groundwater basins identified by the Department of Water Resources as high or medium priority. The Orange County Groundwater Basin (OC Basin) is designated as a medium-priority basin by the Department of Water Resources.

California Green Building Standards Code

The California Green Building Standards Code (CALGreen) (California Code of Regulations, Title 24, Part 11) is a statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development. CALGreen requires new buildings to comply with mandatory water efficiency standards for all plumbing and irrigation fixtures. CALGreen provides voluntary tiers and measures that local governments may adopt which encourage or require additional measures. CALGreen establishes limits for fixture flow rates and requires new buildings to reduce water consumption by 20 percent.

Senate Bill 610

Under Senate Bill (SB) 610, a WSA is required to determine water supply sufficiency for a 20-year projection in addition to the demand of existing and other planned future uses. SB 610 applies only to cities and counties and is required for any project that is subject to CEQA and proposes commercial development of more than 250,000 square feet of floor space, a retail center with more than 500,000 square feet of floor space, or more than 500 dwelling units.

Senate Bill 221

SB 221 requires the local water provider to provide written verification that there is sufficient water supply to serve the project. SB 221 applies to residential projects of 500 units or more (infill or low-income or very-low-income housing subdivisions are exempt) and requires the land use planning agency to include as a condition of approval of a tentative map, parcel map, or development agreement a requirement that sufficient water supply be available.

Senate Bill 1262

SB 1262, which amends Government Code Section 66473.7 and California Water Code Section 10910 requires WSAs to include additional information regarding sustainable groundwater management if water supply for a project includes groundwater, including:

- Whether the department has identified the basin as being subject to critical conditions of overdraft pursuant to Section 12924; and
- If a groundwater sustainability agency has adopted a groundwater sustainability plan or has an approved alternative, a copy of that alternative or plan.

Wastewater

Statewide General Waste Discharge Requirements for Sewer Systems

The SWRCB Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (SWRCB Order No 2006-0003-DWQ) applies to sanitary sewer systems that are greater than one mile long and collect or convey untreated or partially treated wastewater to a publicly owned treatment facility. The goal of SWRCB Order No. 2006-0003 is to provide a consistent statewide approach for reducing sanitary sewer overflows, which are accidental releases of untreated or partially treated wastewater from sanitary sewer systems, by requiring that:

1. In the event of a sanitary sewer overflow, all feasible steps be taken to control the released volume and prevent untreated wastewater from entering storm drains, creeks, etc.
2. If a sanitary sewer overflow occurs, it must be reported to the SWRCB using an online reporting system developed by the SWRCB.
3. All publicly owned collection system agencies with more than one mile of sewer pipe in the State must develop a Sewer System Management Plan, which must be updated every five years.

The City of Santa Ana updated its Sewer System Management Plan in compliance with these requirements in 2022.

Solid Waste

California's Integrated Waste Management Act of 1989

The California Integrated Waste Management Act of 1989 is the result of two pieces of legislation: Assembly Bill (AB) 939 and SB 1322. The California Integrated Waste Management Act was intended to minimize the amount of solid waste that must be disposed of through transformation and land disposal by requiring all cities and counties to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. The 50 percent diversion requirement is measured in terms of per capita disposal expressed as pounds per day per resident and per employee. The per capita disposal and goal measurement system uses an actual disposal measurement based on population and disposal rates reported by disposal facilities, and it evaluates program implementation efforts. The California Integrated Waste Management Act also created the California Integrated Waste Management Board, now known as the California Department of Resources Recycling and Recovery (CalRecycle). CalRecycle is the designated agency that oversees, manages, and tracks California's 92 million tons of waste generated each year. CalRecycle promotes the use of new technologies to divert resources away from landfills and is responsible for ensuring that waste management programs are carried out primarily through local enforcement agencies.

Assembly Bill 341

AB 341 sets forth the requirements of the statewide mandatory commercial recycling program which focuses on increased commercial waste diversion as a method to reduce GHG emissions. AB 341 requires CalRecycle to issue a report to the legislature that includes strategies and recommendations that would enable the state to recycle 75 percent of the solid waste generated

in the state by January 1, 2020, requires businesses that meet specified thresholds in the bill to arrange for recycling services by July 1, 2012, and also streamlines various regulatory processes.

Assembly Bill 1826

AB 1826 defines "organic waste" as food waste, green waste, landscape and pruning waste, non-hazardous wood waste, and food-soiled paper waste that is mixed in with food waste and requires jurisdictions to implement an organic waste recycling program for businesses, including multi-family residential dwellings that consist of five or more units. As of September 2020, businesses, including multi-family residential dwellings with five or more units, that generate 2 cubic yards of solid waste (i.e., total of trash, recycling, and organics) per week are required to arrange for organic waste recycling services.

Senate Bill 1383

SB 1383 establishes targets to achieve a 50 percent reduction in the volume of statewide disposal of organic waste from 2014 levels by 2020 and a 75 percent reduction by 2025. The law grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that not less than 20 percent of currently disposed edible food is recovered for human consumption by 2025.

California Green Building Standards Code

Section 5.408.1 of CALGreen requires at least 65 percent of the nonhazardous construction and demolition waste to be recycled and/or salvaged for reuse. Section 5.410.1 requires the provision of readily accessible areas that serve the entire building for recycling.

Dry Utilities

California Energy Commission

The California Energy Commission is a planning agency which provides guidance on setting the State's energy policy. Responsibilities include forecasting electricity and natural gas demand, promoting and setting energy efficiency standards throughout the State, developing renewable energy resources, and permitting thermal power plants 50 megawatts and larger. The California Energy Commission also has specific regulatory authority over publicly owned utilities to certify, monitor, and verify eligible renewable energy resources procured.

California Public Utilities Commission

The California Public Utilities Commission establishes policies and rules for electricity and natural gas rates provided by private utilities in California, such as Southern California Edison (SCE) and the Southern California Gas Company (SoCalGas). Publicly owned utilities do not fall under the California Public Utilities Commission's jurisdiction. The commission is overseen by five commissioners appointed by the governor and confirmed by the state senate. The commission's responsibilities include regulating electric power procurement and generation, infrastructure oversight for electric transmission lines and natural gas pipelines, and permitting of electrical transmission and substation facilities.

In September 2008, the California Public Utilities Commission adopted the Long-Term Energy Efficiency Strategic Plan, which provides a framework for energy efficiency in California through the year 2020 and beyond. The plan set forth the following goals:

- All new residential construction in California will be zero net energy by 2020;
- All new commercial construction in California will be zero net energy by 2030;

- Heating, and ventilation and air conditioning will be transformed to ensure that its energy performance is optimal for California's climate; and
- All eligible low-income customers will be given the opportunity to participate in the low-income energy efficiency program by 2020.

California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24, Part 6)

In 1978, the California Energy Commission (CEC) established Title 24, Part 6 of the California Code of Regulations, which are California's energy efficiency standards for residential and nonresidential buildings. Title 24, Part 6, also referred to as the California Energy Code, was codified in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy efficiency standards for residential and nonresidential buildings. California's energy efficiency standards are updated on an approximate three-year cycle. The 2022 California Energy Code became effective on January 1, 2023.

California Green Building Standards (California Code of Regulations Title 24, Part 11)

The California Green Building Standards Code (Title 24, Part 11), commonly referred to as the CALGreen Code, is a Statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development. The CALGreen Code requires new residential and commercial buildings to comply with mandatory measures under five topical areas: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. The CALGreen Code also provides voluntary tiers and measures that local governments may adopt to encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code was adopted in 2022 and became effective on January 1, 2023.

REGIONAL

Water

Orange County Water District Basin 8-1 Alternative

The OC Basin (Basin 8-1) is designated as a medium-priority basin by the Department of Water Resources, primarily due to heavy reliance on the OC Basin's groundwater as a source of water supply. The Alternative to a Groundwater Sustainability Plan (Basin 8-1 Alternative) was prepared in 2016 by a collaboration of the agencies within Basin 8-1. The Basin 8-1 Alternative presents an analysis of basin conditions that demonstrate that Basin 8-1 has operated within its sustainable yield over a period of at least 10 years. The Basin 8-1 Alternative was approved by the Department of Water Resources on July 17, 2019. The document is updated and resubmitted every five years as part of Sustainable Groundwater Management Act requirements, and the most recent update occurred on January 1, 2022.

Wastewater

Orange County Sanitation District Capital Facilities Charges

The Orange County Sanitation District (OC San[1]) Capital Facilities Charge (Ordinance No. OC SAN-59) is imposed when a property newly connects to the OC San system, or a previously connected property expands its use. The revenue generated from the charge is used for the

[1] Formerly known as OCSD.

acquisition, construction, and reconstruction of OC San's wastewater collection, treatment, and disposal facilities; to repay principal and interest on debt instruments; or to repay federal or state loans for the construction and reconstruction of sewage facilities, together with costs of administration and provisions for necessary reserves.

Stormwater

Santa Ana Regional Municipal Separate Storm Sewer System Permit

The General Stormwater Unit and the Municipal Stormwater Unit of the Santa Ana Regional Water Quality Control Board enforce stormwater runoff regulations for the region. The Municipal Stormwater Unit administers the Phase I and Phase II municipal separate storm sewer system (MS4) permits and the Caltrans MS4 Permit programs, while the General Stormwater Unit administers the Industrial General Permit, Construction General Permit, and the Scrap Metal Permit programs. Both units regulate pollution in stormwater and non-stormwater discharges to waters of the U.S. (e.g., storm drains, rivers, streams, lakes, wetlands, and the ocean).

The MS4 Permit for the Santa Ana Region, NPDES Permit No. CAS618030 (Order R8-2009-0030 as amended by Order No. R8-2010-0062) regulates urban runoff from areas under jurisdiction of the permittees, including Orange County and its incorporated cities, as well as the Orange County Flood Control District. The MS4 Permit identifies allowable and unallowable discharges and requires implementation of low impact development (LID) infrastructure at project sites. Projects that qualify as a development or redevelopment project are required to develop a site-specific water quality management plan (WQMP), which includes site design, source control, and treatment control elements to reduce the discharge of pollutants in runoff. The WQMP is required to be approved prior to the issuance of a building or grading permit. The MS4 Permit also requires the implementation of best management practices (BMPs). Biotreatment BMPs are a broad class of LID BMPs that reduce stormwater volume to the maximum extent feasible, treat stormwater using mechanisms characteristic of biologically active systems, and discharge water to the downstream storm drain system or directly to receiving waters. Examples of biotreatment BMPs include bioretention with underdrains, vegetated swales, constructed wetlands, and proprietary biotreatment systems.

Orange County Drainage Area Management Plan

The 2003 Drainage Area Management Plan is Orange County's primary policy, planning, and implementation document for NPDES Stormwater Permit compliance. The primary objective of the Drainage Area Management Plan is to develop and implement a program that satisfies NPDES permit requirements for fulfillment of the permittees' requirements. The Drainage Area Management Plan requires that new development and significant redevelopment projects (or priority projects) develop and implement a preliminary WQMP that includes BMPs and LID design features that would provide on-site stormwater treatment to prevent pollutants from leaving the site.

LOCAL

Water

City of Santa Ana 2020 Urban Water Management Plan

The City of Santa Ana prepared the 2020 UWMP to satisfy the Urban Water Management Planning Act and subsequent California Water Code requirements. The City's 2020 UWMP provides an assessment of the present and future water supply sources and demands within the City's service area. The 2020 UWMP also 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. The 2020 UWMP also includes a new 2020 Water Shortage Contingency Plan designed to prepare for and respond to water shortages.

City of Santa Ana Water Master Plan

The 2017 Santa Ana Water Master Plan was prepared to document a multi-year capital improvement program to maintain the City's water utility infrastructure systems in sound operable condition and to meet the level of service expectations of the City over the proposed planning period from 2017/2018 to 2039/2040. The goal of the 2017 Water Master Plan is to identify needed system improvements, define typical refurbishment and replacement requirements, recommend the prioritization of these improvements/replacements, and establish an overall general implementation schedule and budget for these future capital improvement projects.

City of Santa Ana's Standard Plans

The City's Standard Plans are used as a guide by developers, engineers, and contractors in the design and installation of all additions, replacements, and modifications to the City's public water system. The intent of the standards is to provide uniformity in materials and installation of piping, valves, fire hydrants, service laterals, meters, and other water system appurtenances. The standards also refer to and/or reference construction methods and controls to be used by contractors to construct, pressure-test, disinfect, and place in service all improvements and modifications to the City's public water system.

City of Santa Ana Design Guidelines for Water and Sewer Facilities

The City's Design Guidelines for Water and Sewer Facilities provides applicants (developers/builders) with a general understanding of the design criteria for the City of Santa Ana water and sewer facilities for new development or re-development projects.

City of Santa Ana General Plan Update

The City's GPU PEIR and GPU include the following regulatory requirements (RR), goals, and policies related to water supply and infrastructure that are applicable to the proposed project:

Regulatory Requirements

RR U-5: Any development implemented under the General Plan Update shall abide by the water conservation and efficiency requirements detailed in Chapter 8, Article XVI, Chapter 39, Article VI and Chapter 41, Article XVI of the Santa Ana Municipal Code.

RR U-6: Water connection fees shall be paid in accordance with Chapter 39, Article II of the City's Municipal Code and plumbing shall be installed in compliance with Chapter 8, Article III.

RR U-7: Water Supply Assessments and written verifications shall be prepared for any development implemented under the General Plan Update that meets the criteria of Senate Bill 610 or Senate Bill 221.

Public Services Element

Goal PS-3 Utility Infrastructure: Supply, maintain, and expand City services and infrastructure improvements through innovative funding options and sustainable practices.

- *Policy PS-3.8 Conservation Strategies:* Promote cost-effective conservation strategies and programs that increase water use efficiency.

- *Policy PS-3.12 Sewer and Water:* Maintain and upgrade sewer and water infrastructure through impact fees from new development and exploring other funding sources.

Conservation Element

Goal CN-4 Water Resources: Conserve and replenish existing and future water resources.

- *Policy CN-4.1 Water Use:* Encourage and educate residents, business owners, and operators of public facilities to use water wisely and efficiently.
- *Policy CN-4.2 Landscaping:* Encourage public and private property owners to plant native or drought-tolerant vegetation.
- *Policy CN-4.3 Recycled Water Systems:* Continue to coordinate with the Orange County Water District, Orange County Sanitation District, and developers for opportunities to expand use of reclaimed water systems.
- *Policy CN-4.4 Irrigation Systems:* Promote irrigation and rainwater capture systems that conserve water to support a sustainable community.

Santa Ana Municipal Code

- *Chapter 8 – Article III, Green Building Standards Code*: This article of the code incorporates the 2016 Plumbing Code by reference.
- *Chapter 8 – Article XVI, Green Building Standards Code*: This article of the code incorporates CALGreen by reference.
- *Section 39-19, Water Rates, Service Charges, Fees and Costs:* This section establishes the requirement of a permit prior to connecting to a water main or prior to an increase in size of an existing water meter or service in addition to the payment of fees in amounts as established by resolution of the City council.
- *Section 39-99, Permanent Water Conservation Requirements*: The City promotes water use efficiency and includes various water conservation requirements. The requirements include water use limitations for residential, commercial, and other uses (e.g., restaurants, hotels, car washes, etc.).
- *Section 39-100, Water Shortage Levels*: The City created a Water Shortage Contingency Plan that defines six water supply shortage levels corresponding to progressive ranges from 10 to 50 percent shortages and a greater than 50 percent shortage.
- *Section 41-1503, Landscape Water Use Standards*: The City promotes water use efficiency through water efficient landscape requirements that were implemented in January 2016. This code requires that new landscape projects greater than 2,500 square feet comply with the performance requirements of the City's Water Efficient Landscape Guidelines that identifies a maximum allowable water use for landscape that is implemented by efficient irrigation systems and drought tolerant landscape species.

Wastewater

City of Santa Ana 2016 Sewer Master Plan

The City's 2016 Sewer Master Plan Update was an update to a sewer capacity analysis performed in 2003. The 2016 Sewer Master Plan analyzed the age of the sewer infrastructure, and the capacity of the City's sewer collection system for existing and future peak-flow conditions under both dry and wet weather conditions. In addition, the 2016 Sewer Master Plan summarized the

rankings of the condition of the sewer pipes/manholes and the recommended rehabilitation and replacement of these sewers.

City of Santa Ana's Standard Plans

The City's Standard Plans are used as a guide by developers, engineers, and contractors in the design and installation of all additions, replacements, and modifications to the City's public sewer system. The intent of the standards is to provide uniformity in materials and installation of piping, manholes, and other sewer system appurtenances. The standards also refer to and/or reference construction methods and controls to be used by contractors to construct and place in service all improvements and modifications to the City's public sewer system.

City of Santa Ana Design Guidelines for Water and Sewer Facilities

The City's Design Guidelines for Water and Sewer Facilities provides applicants (developers/builders) with a general understanding of the design criteria for the City of Santa Ana water and sewer facilities for new development or re-development projects.

City of Santa Ana General Plan Update

The City's GPU PEIR and GPU include the following RRs, goals, and policies related to wastewater infrastructure that are applicable to the proposed project:

Regulatory Requirements

RR U-1: Any sewer utility infrastructure improvement associated with development under the General Plan Update shall be designed, constructed, and operated in accordance with Chapter 8, Article III, and Chapter 39, Article III, and of the Santa Ana Municipal Code.

RR U-2: Any new connections to the Orange County Sanitation District system or expansion of a previous connection shall pay a capital facilities charge in accordance with Ordinance No. OCSD-40.

RR U-3: Sewer utility infrastructure improvements associated with development under the General Plan Update shall be designed, constructed, and operated in accordance with the Orange County Sanitation District's Ordinance Nos. 25 and 48 and the wastewater discharge requirements of the National Pollutant Discharge Elimination System permit (Order No. R8-2012-0035).

Public Services Element

Goal PS-3 Utility Infrastructure: Supply, maintain, and expand City services and infrastructure improvements through innovative funding options and sustainable practices.

- *Policy PS-3.2 Wastewater Service:* Provide and maintain wastewater collection facilities which adequately serve existing land uses and future development projects while maximizing cost efficiency.
- *Policy PS-3.12 Sewer and Water:* Maintain and upgrade sewer and water infrastructure through impact fees from new development and exploring other funding sources.

City of Santa Ana Municipal Code

- *Chapter 8 – Article III, Green Building Standards Code*: This article of the code incorporates the 2016 Plumbing Code by reference.

- *Section 39-51, Mandatory Connection*: This section requires all buildings or other structures that contain any plumbing fixtures and are located within any sewer district or district serviced by a public sewer be connected to a public sewer.
- *Section 39-53, Connection Permit Required; Determination of Fee:* The section requires issuance of a permit and payment of fees before any sewer connection can be made. The sewer connection fee would be proportionate to the applicant's share of the cost of public sewer construction as determined by the director of public works and specified in Section 39.53(c). All connection fees collected are deposited into the sewer connection fee fund.
- *Section 39-54, Development Conditioned Upon Sewer Line Construction*: This section requires building permits to be reviewed by the Director of Public Works for the purpose of determining whether the proposed development would result in an overload of existing sewer line capacity. A building permit will not be approved if an overload will occur unless a sewer line of sufficient capacity is first constructed, or the City and the applicant enter into an agreement for its subsequent construction.

Stormwater

City of Santa Ana Storm Drain Master Plan

The purpose of the Master Plan of Storm Drainage is to provide comprehensive long-range planning for the implementation and development of drainage facility improvements, determine the cost of implementing such facilities, and discuss funding priorities of the improvements within the City of Santa Ana. Main collector elements (storm drain facilities 36 inches or larger) within the City were modeled with the goal of identifying issues related to existing storm drain facilities. Flooding results for the 10-, 25-, and 100-year storm conditions were compared to County of Orange design protection levels for streets to determine deficient segments and locations.

City of Santa Ana General Plan Update

The City's GPU PEIR and GPU includes the following RRs, goals, and policies related to stormwater and drainage that are applicable to the proposed project:

Regulatory Requirements

RR U-8: Storm drain shall be installed in compliance with Chapter 8, Article III, of the Santa Ana Municipal Code.

RR HYD-1: All development pursuant to the General Plan Update shall comply with the requirements of the Construction General Permit (Order No. 2012-0006-DWQ) for stormwater discharges associated with construction activity. Compliance requires filing a Notice of Intent (NOI), a Risk Assessment, a Site Map, a Stormwater Pollution Prevention Plan (SWPPP) and associated best management practices (BMPs), an annual fee, and a signed certification statement.

RR HYD-4: All development pursuant to the General Plan Update shall comply with the requirements of the Orange County MS4 Permit (Order R8-2009-0030, NPDES No. CAS618030, as amended by Order No. R8-2010-0062). The MS4 Permit requires new development and redevelopment projects to:

- Control contaminants into storm drain systems
- Educate the public about stormwater impacts
- Detect and eliminate illicit discharges

- Control runoff from construction sites
- Implement best management practices and site-specific runoff controls and treatments for new development and redevelopment

Public Services Element

Goal PS-3 Utility Infrastructure: Supply, maintain, and expand City services and infrastructure improvements through innovative funding options and sustainable practices.

- *Policy PS-3.4 Drainage Facilities:* Expand and maintain storm drain facilities to accommodate the needs of existing and planned development.
- *Policy PS-3.5 Green Infrastructure:* Incorporate sustainable design and Low Impact Development (LID) techniques for stormwater facilities and new development to achieve multiple benefits, including enhancing, preserving, and creating open space and habitat; reducing flooding; and improving runoff water quality.

Conservation Element

Goal CN-4 Water Resources: Conserve and replenish existing and future water resources.

- *Policy CN-4.6 Water Quality:* Work with public and private property owners to reduce storm water runoff and to protect the water quality percolating into the aquifer and into any established waterway.

Safety Element

Goal S-1 Flood Safety: Protect life and minimize property damage, social and economic disruptions caused by flood and inundation hazards.

- *Policy S-1.7 Surface Water Infiltration:* Encourage site drainage features that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events on private and public developments.

City of Santa Ana Municipal Code

Section 18-155, Prohibition on Illicit Connections and Prohibited Discharges: This section states that no person shall construct, maintain, operate, or utilize any illicit connection; or cause, allow, or facilitate any prohibited discharge. The section provides exceptions and extensions based on authorization from the city manager or inspector.

Section 18-156, Control of Urban Runoff: This section states that all new development and significant redevelopment within the City shall be undertaken in accordance with the County Drainage Area Management Plan, including but not limited to the development project guidance; and any conditions and requirements established by City agencies related to the reduction or elimination of pollutants in stormwater runoff from the project site. Prior to the issuance by the City of a grading permit, building permit or nonresidential plumbing permit for any new development or significant redevelopment, City agencies are required to review the project plans and impose terms, conditions, and requirements on the project.

Solid Waste

City of Santa Ana General Plan Update

The City's GPU PEIR and GPU include the following RRs, goals, and policies related to solid waste that are applicable to the proposed project:

Regulatory Requirements

RR U-7: All development pursuant to the General Plan Update shall comply with Section 4.408 of the 2019 California Green Building Code Standards, which requires new development projects to submit and implement a construction waste management plan in order to reduce the amount of construction waste transported to landfills.

RR U-8: All development pursuant to the General Plan Update shall store and collect recyclable materials in compliance with Assembly Bill 341. Green waste will be handled in accordance with Assembly Bill 1826.

Economic Prosperity Element

Goal EP-2 Diverse Economic Base: Maintain and enhance the diversity and regional significance of the city's economic base.

- *Policy EP-2.9 Energy Conservation:* Collaborate with utility providers and regional partners to encourage business and industry to improve performance in energy efficiency, water conservation, and waste reduction.

Land Use Element

Goal LU-4 Complete Communities: Support a sustainable Santa Ana through improvements to the built environment and a culture of collaboration.

- *Policy LU-4.3 Sustainable Land Use Strategies:* Encourage land uses and strategies that reduce energy and water consumption, waste and noise generation, soil contamination, air quality impacts, and light pollution.

Public Services Element

Goal PS-3 Utility Infrastructure: Supply, maintain, and expand City services and infrastructure improvements through innovative funding options and sustainable practices.

- *Policy PS-3.10 Development Projects:* Encourage new development and reuse projects to incorporate recycling and organics collection activities aligned with state waste reduction goals.
- *Policy PS-3.11 Waste Collection:* Support infill development projects that provide adequate and creative solutions for waste and recycling collection activities.

City of Santa Ana Municipal Code

Chapter 16 – Article II, Solid Waste Collection Regulations: This article provides rules and regulations relating to solid waste for the City to both manage the discarded materials generated within the City and to comply with California's regulatory requirements.

Dry Utilities

City of Santa Ana General Plan Update

The City's GPU PEIR and GPU include the following RRs, goals, and policies related to dry utilities that are applicable to the proposed project:

Regulatory Requirements

RR U-10: New buildings are required to achieve the current California Building Energy and Efficiency Standards (Title 24, Part 6) and California Green Building Standards Code (CALGreen) (Title 24, Part 11).

RR U-11: All new appliances would comply with the 2012 Appliance Efficiency Regulations (Title 20, California Code of Regulations, Sections 1601 through 1608).

Conservation Element

Goal CN-1 Air Quality and Climate: Protect air resources, improve regional and local air quality, and minimize the impacts of climate change.

- *Policy CN-1.4 Development Standards:* Support new development that meets or exceeds standards for energy-efficient building design and site planning.

Goal CN-3 Energy Resources: Reduce consumption of and reliance on nonrenewable energy, and support the development and use of renewable energy sources.

- *Policy CN*-3.5 *Landscaping*: Promote and encourage the planting of native and diverse tree species to improve air quality, reduce heat island effect, reduce energy consumption, and contribute to carbon mitigation with special focus in environmental justice areas.
- *Policy CN-3.7 Energy Conservation Design and Construction*: Incorporate energy conservation features in the design of new construction and rehabilitation projects.

Land Use Element

Goal LU-4 Complete Communities: Support a sustainable Santa Ana through improvements to the built environment and a culture of collaboration.

- *Policy LU-4.3 Sustainable Land Use Strategies:* Encourage land uses and strategies that reduce energy and water consumption, waste and noise generation, soil contamination, air quality impacts, and light pollution.
- *Policy LU-4.4. Natural Resource Capture:* Encourage the use of natural processes to capture rainwater runoff, sustainable electric power, and passive climate control.

Urban Design Element

Goal UD-2 Complete Communities: Improve the built environment through sustainable development that is proportional and aesthetically related to its setting.

- *Policy UD-2.11 Sustainable Environment:* Encourage sustainable development through the use of drought tolerant landscaping, permeable hardscape surfaces, and energy efficient building design and construction.

City of Santa Ana Municipal Code

Chapter 8 - Article XVI (Green Building Standards Code) of the Santa Ana Municipal Code incorporates the California Green Building Standards Code by reference.

4.15.2 ENVIRONMENTAL SETTING

WATER

Water Distribution Facilities

The City of Santa Ana Public Works Agency Water Resources Division provides potable water service in the project area. The City operates 10 reservoirs with a storage capacity of approximately 49 million gallons, 7 pumping stations, 21 groundwater wells, 4 pressure regulating stations, and 7 import water connections and manages a 510.1-mile water mains system with 45,037 service connections.[2] The City owns and operates existing water mains adjacent to the project site's perimeter within Plaza Drive, Sunflower Avenue, and Bear Street; refer to Figure 3-18, Existing and Proposed Water System, in Chapter 3, Project Description.

Existing Water Demand

The project site is currently developed with approximately 164,049 square feet of existing commercial retail uses. The existing water demand for the project site is approximately 43,000 gpd or 48 acre-feet per year (AFY) based on a water demand factor of 2,500 gallons per day (gpd) per acre.

Projected Water Supply and Demand

The City's water supply is sourced from a combination of local groundwater from the OC Basin managed by the OCWD purchased imported water from the Metropolitan Water District of Southern California (MWD), and recycled water from OCWD. According to the City's 2020 UWMP, the City's total water use in 2020 was comprised of 25,591 AFY of groundwater, 7,649 AFY of imported water, and 249 AFY of recycled water, with groundwater accounting for approximately 76 percent of the City's total water supply.[3] Table 4.15-1: City's Projected Water Supply, provides the City's projected water supply for 2025 through 2045, which shows that the City plans to increase its groundwater production to approximately 84 percent of its total water supply. The remaining demand will be met by purchasing imported water from MWD.

Table 4.15-1: City's Projected Water Supply

Water Source	Water Supplier	2025 (AFY)	2030 (AFY)	2035 (AFY)	2040 (AFY)	2045 (AFY)
Groundwater	OCWD	28,588	29,024	28,799	28,551	28,541
Purchased Imported Water	Metropolitan Water District	5,045	5,122	5,082	5,038	5,037
Recycled Water	OCWD	249	249	249	249	249
	Total:	**33,882**	**34,395**	**34,130**	**33,838**	**33,827**

Notes: AFY = acre-feet per year.
Source: Arcadis, 2021, City of Santa Ana 2020 Urban Water Management Plan Tables 4-4 and 6-2, available at: https://www.santa-ana.org/water-plans-and-documents/.

[2] Arcadis, 2021, City of Santa Ana 2020 Urban Water Management Plan, available at: https://www.santa-ana.org/water-plans-and-documents/.
[3] Ibid.

According to the City's 2020 UWMP, water use in the City has been relatively stable in the past decade and is expected to remain stable because the City is essentially built-out. Thus, total future water demand is projected to increase approximately 1 percent between 2020 and 2045.[4] Commercial, industrial, and institutional/governmental uses are projected to increase in demand, while single-family residential use is projected to decrease in demand.[5] The City's future demand projections accounts for future passive savings, or water savings resulting from codes, standards, ordinances, and public outreach on water conservation and higher efficiency fixtures.[6] As demonstrated in the 2020 UWMP and shown in Table 4.15-2: Normal, Single Dry Year, and Multiple Dry Year Supply and Demand, the City's projected water demand through 2045 can be met with its future total water supply.

Table 4.15-2: Normal, Single Dry Year, and Multiple Dry Year Supply and Demand

	2025 (AFY)	2030 (AFY)	2035 (AFY)	2040 (AFY)	2045 (AFY)
Normal Year Supply and Demand					
Supply	33,633	34,146	33,881	33,589	33,578
Demand	33,633	34,146	33,881	33,589	33,578
Single Dry Year Supply and Demand					
Supply	35,651	36,195	35,914	35,604	35,793
Demand	35,651	36,195	35,914	35,604	35,793
Multiple Dry Year Supply and Demand					
First Year Supply	35,581	36,024	36,403	36,116	35,866
First Year Demand	35,581	36,024	36,403	36,116	35,866
Second Year Supply	35,665	36,133	36,347	36,054	35,864
Second Year Demand	35,665	36,133	36,347	36,054	35,864
Third Year Supply	35,748	36,241	36,290	35,992	35,861
Third Year Demand	35,748	36,241	36,290	35,992	35,861
Fourth Year Supply	35,831	36,350	36,234	35,930	35,859
Fourth Year Demand	35,831	36,350	36,234	35,930	35,859
Fifth Year Supply	35,915	36,459	36,178	35,868	35,857
Fifth Year Demand	35,915	36,459	36,178	35,868	35,857

Notes: AFY = acre-feet per year.

Source: Arcadis, 2021, City of Santa Ana 2020 Urban Water Management Plan Tables 7-2, 7-3, and 7-4, available at: https://www.santa-ana.org/water-plans-and-documents/.

Groundwater

The OC Basin underlies the northern half of Orange County and covers an area of approximately 350 square miles bordered by the Coyote and Chino Hills to the north, the Santa Ana Mountains to the northeast, and the Pacific Ocean to the southwest. The OC Basin's estimated storage capacity is approximately 66 million acre-feet.[7] OCWD regulated the amount of groundwater that can be pumped annually by establishing the Basin Production Percentage (BPP), which is the percentage of an agency's total water supply that comes from groundwater pumped from the OC Basin each year. The BPP is set on an annual basis by OCWD and is based on groundwater conditions, availability of imported water supplies, and basin management objectives. While there is no legal limit as to how much an agency pumps from the OC Basin, there is a financial

[4] Arcadis, 2021, City of Santa Ana 2020 Urban Water Management Plan, available at: https://www.santa-ana.org/water-plans-and-documents/.
[5] Ibid.
[6] Ibid.
[7] Ibid.

disincentive to pump above the BPP as agencies that pump above the percentage are charged the replenishment assessment plus the basin equity assessment.[8]

Groundwater from the OC Basin is pumped through the City's 21 active groundwater wells. As shown in Table 4.15-3: City's Groundwater Pumping Volumes, the groundwater volume pumped in 2016 through 2020 was relatively stable. Recharge of the OC Basin through natural and artificial means is essential to support pumping from the basin. Natural recharge consists of subsurface inflow from local hills and mountains, infiltration of precipitation and irrigation water, recharge in small flood control channels, and groundwater underflow to and from Los Angeles County and the ocean. The OC Basin's primary source of recharge is flow from the Santa Ana River. Other sources of recharge water include natural infiltration, recycled water, and imported water.[9]

Table 4.15-3: City's Groundwater Pumping Volumes

Supply Source	2016 (AFY)	2017 (AFY)	2018 (AFY)	2019 (AFY)	2020 (AFY)
Orange County Basin	24,722	24,357	21,327	25,505	25,591

Notes: AFY = acre-feet per year.
Source: Arcadis, 2021, City of Santa Ana 2020 Urban Water Management Plan Table 6-4, available at: https://www.santa-ana.org/water-plans-and-documents/.

Imported Water

The City has a purchase agreement with MWD to purchase imported water and is one of only three retail member agencies of MWD in Orange County. The purchase agreement requires the City to purchase a minimum quantity of water annually, as well as a minimum quantity of water over the course of 10 years. In exchange, the City is able to purchase additional water beyond its annual purchase commitment, should the need arise. The City's average annual purchase commitment is 8,086 AFY, while its maximum average annual value is 19,617 AFY.

MWD's primary water supply is sourced from the Colorado River via the Colorado River Aqueduct and the Lake Oroville watershed in Northern California via the State Water Project. For Orange County, the water obtained from these sources is treated at the Robert B. Diemer Filtration Plant located in the City of Yorba Linda.[10] The water supply from the Colorado River is enabled through the Quantification Settlement Agreement and its related agreements.[11,12] MWD has a basic entitlement of 550,000 AFY of Colorado River water, plus surplus water up to an additional 662,000 AFY with certain conditions.[13]

Recycled Water

The City obtains its recycled water supply from OCWD for non-potable uses such as irrigation. OCWD provided approximately 249 AF of recycled water to the City of Santa Ana in 2020 as part

[8] Arcadis, 2021, City of Santa Ana 2020 Urban Water Management Plan, available at: https://www.santa-ana.org/water-plans-and-documents/.
[9] Ibid.
[10] Ibid.
[11] The Quantification Settlement Agreement, signed 2003, defined the rights to a portion of Colorado River water for San Diego County Water Authority, Coachella Valley Water District, Imperial Irrigation District, and the Metropolitan Water District of Southern California.
[12] United States Department of the Interior, 2003, Colorado River Water Delivery Agreement: Federal Quantification Settlement Agreement for purposes of Section 5(B) of Interim Surplus Guidelines, available at: https://www.iid.com/home/showpublisheddocument/825/635648001335730000.
[13] Arcadis, 2021, City of Santa Ana 2020 Urban Water Management Plan, available at: https://www.santa-ana.org/water-plans-and-documents/.

of the Green Acres Project.[14] The Green Acres Project is a water recycling system that provides up to 8,400 AFY of recycled water as an alternate source of water that is mainly delivered to parks, golf courses, greenbelts, cemeteries, and nurseries within the Cities of Santa Ana, Costa Mesa, Fountain Valley, and Newport Beach. OCWD supplies water from the Green Acres Project to customers where available, and it is anticipated that recycled water supplied to the City would maintain around 249 AFY through 2045.[15]

The OCWD has a 2-inch recycled water main within Bear Street that is a part of the Green Acres Project. The Village has a 2-inch recycled water service connected to the main on Bear Street currently in use for irrigation. According to OCWD, no new recycled water services connections are available.

WASTEWATER

The City owns and maintains the local sewer infrastructure, consisting of over 390 miles of pipeline, 7,360 manholes, and two lift stations, throughout the City that connect to OC San's trunk sewers to convey wastewater to OC San's treatment plants in the cities of Fountain Valley and Huntington Beach. Treatment Plant No. 1 in Fountain Valley has a capacity of 320 million gallons per day (mgd) and Plant No. 2 has a capacity of 312 mgd.[16] The Treatment Plant No. 1 has a secondary treatment capacity of 182 mgd. Average wastewater flows through Treatment Plant No. 1 are about 120 to 130 mgd.[17] Wastewater from Treatment Plant 1 is sent to OCWD's groundwater replenishment system for further treatment for beneficial use.

The majority of the project site is surrounded and serviced by the OC San trunk sewer mains, and an active direct connection to the OC San main exist along Plaza Drive on the east. The City owns and operates an existing vitrified clay pipe (VCP) sewer main along Sunflower Drive as well as a short segment of VCP sewer within Bear Street at the northwest corner of the project site. The remainder of the surrounding sewer network is owned and operated by OC San and consists of a VCP main in Bear Street, a VCP sewer main in Plaza Drive, and a large concrete trunk main in Sunflower Avenue. According to OC San, there is existing capacity within the Sunflower Drive trunk main; however, the smaller VCP sewer mains in Bear Street and Plaza Drive have no additional capacity beyond current discharges. Figure 3-17, in Chapter 3, Project Description, shows the existing and proposed sewer system.

The Sewer Capacity Study prepared by Tait & Associates, Inc., for the proposed project subdivides the existing sewer system into the following three tributary networks:

- Plaza Drive Tributary (OC San): This tributary consists of an 8-inch lateral to a 15-inch VCP sewer main owned by OC San within Plaza Drive, which has an existing capacity of 1.126 cubic feet per second (cfs). The 15-inch main flows south to a 78-inch reinforced concrete pipe (RCP) sewer trunk line owned by OC San on the south side of Sunflower Avenue.
- Sunflower Avenue Tributary (City): A City-owned 8-inch VCP sewer main currently exists on the north side of Sunflower Avenue which originates at the southwest corner of the project site and has an existing capacity of 0.405 cfs. There is also a 6-inch sewer lateral

[14] Arcadis, 2021, City of Santa Ana 2020 Urban Water Management Plan, available at: https://www.santa-ana.org/water-plans-and-documents/.
[15] Ibid.
[16] Ibid.
[17] City of Santa Ana, 2021, General Plan Update PEIR Page 5.18-7, available at: https://general-plan-santa-ana-ca.proudcity.com/other-resources/environmental-documents/.

and a 6-inch PVC lateral, as well as a 4-inch lateral, connected to the main on the southern portion of the project site.

- Bear Street Tributary (OC San): The OC San 10-inch VCP sewer main originates north of the intersection of Bear Street and Sunflower Avenue, which receives the City of Santa Ana's sewer flows from the north. The 10-inch VCP sewer main has an existing capacity of 0.577 cfs. The sewer main continues south to intercept the aforementioned 8-inch City-owned Sunflower Avenue Tributary line where the sewer flows continue south and southwest in a 10-inch sewer main to connect to the 78-inch RCP OC San trunk line.

STORMWATER

Refer to Section 4.7, Hydrology and Water Quality, for an expanded discussion on stormwater facilities and water quality. As discussed therein, stormwater infrastructure throughout the City includes both City and Orange County Flood Control District (OCFCD) owned drainage facilities that convey stormwater runoff. All underground lines are under jurisdiction of the City and all open flood control channels are maintained by the OCFCD, except for one City-owned open trapezoidal channel that runs west from Harbor Boulevard to south of 1st Street. The City's stormwater infrastructure feeds to a series of OCFCD regional drainage channels and their respective drainage areas.

The project site is located within the Newport Bay Watershed, and the project site drains to the Santa Ana Delhi Channel. The primary stormwater facilities that serve the project site include 12-inch to 72-inch City storm drain lines and the OCFCD Santa Ana Gardens drainage channel. Existing drainage from the project site generally discharges to Bear Street, South Plaza Drive, and Sunflower Avenue via surface flow to parkway drain or direct storm drain connections. The public storm drain network generally flows from north to south and from west to east around the project site. Storm flows in Bear Street flow in existing RCP toward Sunflower Avenue which then turn east and intersect with flows generated from South Plaza Drive to the north, and ultimately continue to drain to the east toward Bristol Street. Figure 3-15, in Chapter 3, Project Description, shows the existing and proposed storm drain system.

SOLID WASTE

Solid waste generated in the City is delivered to two primary landfills in Orange County – the Frank R. Bowerman Sanitary Landfill and the Olinda Alpha Sanitary Landfill. The Frank R. Bowerman Sanitary Landfill is a Class III municipal solid waste landfill located in Irvine with a maximum permitted tonnage of 11,500 tons per day (tpd), an average daily disposal rate of approximately 7,136 tpd in 2022, the most recent year that complete annual data is available, and a cease operation date of December 31, 2053.[18,19,20] The Olinda Alpha Landfill is a Class III municipal solid waste landfill located in Brea with a maximum permitted tonnage of 8,000 tons tpd, an average daily disposal rate of nearly 7,000 tpd, and a cease operation date of December 31, 2036.[21,22] According to the GPU EIR, the Frank R. Bowerman Sanitary Landfill has a residual

[18] Orange County Waste & Recycling, 2024, Frank R. Bowerman Landfill, available at: https://oclandfills.com/landfills/frank-r-bowerman-landfill, accessed March 2024.
[19] Average daily disposal is based on 307 operating days per calendar year and a total disposal volume in 2022 of 2,190,642 tons.
[20] CalRecycle, 2022, Landfill Summary Tonnage Report, available at: https://www2.calrecycle.ca.gov/LandfillTipFees/.
[21] Orange County Waste & Recycling, Olinda Alpha Landfill, available at: https://oclandfills.com/landfills/olinda-landfill, accessed March 2024.
[22] CalRecycle, 2022, Landfill Summary Tonnage Report, available at: https://www2.calrecycle.ca.gov/LandfillTipFees/.

capacity of 2,917 tons per day and the Olinda Alpha Landfill is operating at capacity.

Republic Services provides curbside recycling, garbage, and yard waste services to the City. The City currently participates in several recycling programs, including residential recycling, organics recycling, and construction and demolition recycling. The City has two authorized haulers for construction and demolition recycling, Waste Management and Ware Disposal. Construction and demolition debris is accepted for recycling at Madison Materials in Santa Ana.

DRY UTILITIES

Public gas and electric facilities providing existing service to the project site are owned and operated by SoCalGas and SCE, respectively. An existing electrical line runs though Bear Street. An existing 1-inch gas line exists on the southern boundary of the project site, within Sunflower Avenue, and two existing 4-inch gas mains are located along Sunflower Avenue and Bear Street.

As discussed in Section 4.3.2 Energy, the electricity and natural gas consumption for Orange County in 2022 is approximately 20,243,720,000 kilowatt hours of electricity and approximately 572,450,000 therms of natural gas.[23]

Existing Energy Usage on the Project Site

Existing uses on the project site, comprising the South Coast Plaza Village commercial center, currently generate a demand for electricity and natural gas, as shown in Table 4.15-4: Existing Energy Consumption.

Table 4.15-4: Existing Energy Consumption

Energy Type	Existing Condition Annual Energy Consumption[a]
Electricity Consumption	3,146 MWh
Natural Gas Consumption	68,913 therms
Operational Automotive Fuel Consumption	1,181,430 gallons

Notes:
[a] As modeled in CalEEMod version 2022.1.
Source: Refer to the Air Quality, Greenhouse Gas Emissions, Construction Health Risk Assessment, and Energy Modeling Outputs (Air Quality and GHG Modeling Outputs), included as Appendix B, for assumptions used in this analysis.

Communication Services

Communication services such as telephone, wi-fi, and cable television are provided to the area by multiple providers. The largest service providers are Charter (Spectrum) and AT&T.

4.15.3 THRESHOLDS OF SIGNIFICANCE

The significance thresholds used to evaluate the impacts of the proposed project related to utilities and service systems are based on Appendix G of the State CEQA Guidelines. A project would have a significant impact related to utilities and service systems if it would:

U-1: Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or

[23] California Energy Commission, Electricity Consumption by County and Gas Consumption by County, available at: http://www.ecdms.energy.ca.gov/, accessed August 2024.

telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

U-2: Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.

U-3: Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

U-4: Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

U-5: Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

4.15.4 METHODOLOGY

WATER

The analysis for water supply is based on the WSA prepared for the project by Michael Baker International, included as Appendix J. The project's net water demand during operation was calculated then compared to the City's projected water supply to determine if sufficient water supplies are available to serve the project and reasonably foreseeable development within the City during normal, dry, and multiple-dry years. Additionally, the water supply infrastructure in the project area was identified and evaluated to ensure design capacity would be adequate to supply the project site, or to identify if expansions would be required to serve the proposed development. The GPU PEIR evaluated water demand using the City's 2015 UWMP as this was the most current UWMP available. However, under Water Code Section 10610 through 10656 of the Urban Water Management Planning Act, all urban water suppliers must prepare, adopt, and file a UWMP every five years. Since the certification of the GPU PEIR, the City has adopted the 2020 UWMP. The City's 2015 UWMP assumed greater growth in the City and a corresponding higher water demand through 2040 than the 2020 UWMP. Therefore, the 2020 UWMP provides a more conservative estimate of the water demands of the City than the 2015 UWMP. The proposed project's water demand evaluation in this section uses the current 2020 UWMP. The proposed project's current water demand was calculated using the methodology from the City's 2020 UWMP, which utilized the Orange County Water Demand Forecast for MWD and OCWD (Forecast Memorandum). The proposed project's future demand follows the forecasting methodology described in the City's 2020 UWMP and the Forecast Memorandum. The multiplying percentages for multi-family, commercial, and landscape uses were derived from the City's 2020 UWMP and multiplied by the project's current water demand to achieve the projected water demand.

WASTEWATER

The analysis for sewer capacity is based on the Sewer Capacity Study prepared for the project by Tait & Associates, included as Appendix K. The Design criteria utilized in this study are based on the City of Santa Ana Design Guidelines for Water and Sewer Facilities as well as the OC San Engineering Design Guidelines, Chapter 12, Sanitary Sewer Design and Construction Requirements. The study calculated the generation rates for the existing and proposed development based on land use generation rates to calculate the projected ratio of flow depth versus pipe diameter.

STORMWATER

The analysis of potential impacts involving construction of new stormwater drainage facilities is based, in part, on information included in the based in part, on the Updated Geotechnical Feasibility Study (Geotechnical Feasibility Study) prepared by NMG Geotechnical, Inc., included as Appendix D, and the Hydraulic Model Evaluation prepared by AKEL Engineering (June 2024), included as Appendix I.

SOLID WASTE

The analysis for solid waste is based on the USEPA's and the GPU PEIR's waste generation factors for nonresidential and residential uses. The amount of solid waste generation was calculated for construction activities (demolition, excavation, and construction of buildings) and operational activities (nonresidential and residential uses). The solid waste generation was then compared with existing landfill capacity to determine impacts to capacity.

DRY UTILITIES

The analysis for electricity and natural gas is based, in part, on the CalEEMod's modeling results provided in the Air Quality and GHG Modeling Outputs (Appendix B). Regional demand forecasts for electricity and natural gas services were examined to determine if there could be potential impacts involving expanding the supplies of these energy sources.

4.15.5 PROJECT IMPACTS

U-1 ***Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*** *[GPU PEIR Impacts 5.18.1, 5.18.3, 5.18-5, and 5.18-7]*

IMPACT ANALYSIS

Water

GPU PEIR Impact Summary

According to Impact 5.18-3 of the GPU PEIR, under the proposed land use changes, water flows would increase throughout the City and its focus areas due to increases in dwelling units and commercial land uses. The GPU PEIR states that as of 2021, the City had 19 identified water main replacement projects, 6 groundwater well improvement projects, and 1 pump station improvement project; four of the five focus areas would have water main improvements. However, as the 2017 Water Master Plan determined that the City's distribution system was largely hydraulically sound, the GPU PEIR anticipated no major deficiencies from increased demand. The GPU PEIR states improvement projects resulting from deteriorated or aged pipes would be anticipated to constitute the majority of future water infrastructure projects. Through its planning and Capital Improvement Program mechanisms, the City would have adequate capacity for the proposed increases in water flows across the City under implementation of the GPU, which was confirmed with City staff. Furthermore, GPU policies would encourage the maintenance and upgrade of water infrastructure through impact fees from new development, promote the City-wide use of drought-tolerant landscape, and encourage public and private property owners to plant native or drought-tolerant vegetation. Therefore, Impact 5.18-3 of the GPU PEIR concluded that with implementation of RR U-5 through RR U-7 and GPU Policy PS-3.12, impacts related to the relocation or construction of new or expanded water facilities would be less than significant.

Proposed Project Impact Analysis

The proposed project would redevelop the project site, which is currently served by the City's water infrastructure (refer to Figure 3-18, in Chapter 3, Project Description). The City has completed a hydraulic model evaluation based on the currently proposed development densities and layout and has determined that the existing public water system is adequate to service the proposed development with no further upgrades (see Hydraulic Model Evaluation for The Village Project, prepared by AKEL Engineering Group, Inc. Dated June 2024, Appendix I).

The Village's proposed water demand would be approximately 302,970 gallons per day (339 acre feet per year). The proposed project would construct new on-site private fire water networks within the development to the west and east of Plaza Drive in order to allow construction of private fire hydrants and provide fire sprinkler connections to proposed structures. New domestic, irrigation, and fire water service connections would also be constructed for proposed structures and made directly to the existing public water mains located throughout the Specific Plan area per City standard plans. All existing laterals no longer servicing the site would be removed and abandoned up to the existing water main per City standards.

Per Santa Ana Municipal Code Section 39-23, all residential units would require individual domestic water submetering in addition to separate metering for communal facilities and irrigation meters.

The Village has an existing OCWD 2-inch recycled water service on Bear Street, which is part of OCWD's Green Acres Project and is proposed to remain available for irrigation. OCWD has indicated that no new recycled water services connections are available, however the existing 2-inch service would remain available for the maximum extent possible for irrigation. Any new irrigation connections needed would come from the City's domestic water system from pipes along the eastern portion of The Village unless in the future, OCWD allows additional recycled metering.

The final layout, location, and number of proposed water mains, hydrants, and meters as well as proposed recycled water and irrigation laterals and meters would be developed during the design permitting phased based on City and County input. The proposed water infrastructure improvements would comply with the City of Santa Ana Design Guidelines for Water and Sewer Facilities and City of Santa Ana's Construction Standards to ensure that the construction of these infrastructure improvements would not cause significant environmental effects. Construction impacts associated with the installation of new water mains, fire hydrants, and water connections would be temporary and would primarily involve trenching in order to place the water lines below ground. Further, the proposed water infrastructure improvements would be located in areas within the project site and within previously disturbed roadways, and thus, the impacts from installation and upgrades of the proposed water networks and connections are already accounted for in the various resource sections of this Supplemental EIR. Moreover, water infrastructure improvement projects were considered in the GPU PEIR and supported by GPU policies. Therefore, the proposed project's impacts related to the relocation or construction of new or expanded water facilities would be less than significant and consistent with the impacts disclosed in the GPU PEIR.

Wastewater

GPU PEIR Impact Summary

According to Impact 5.18-1 of the GPU PER, full implementation of the GPU would increase wastewater flows by 4.13 mgd within the City and by 3.09 mgd throughout the focus areas. Increased wastewater generation from focus area development under the GPU, which represents

approximately 75 percent of the total wastewater flows throughout the GPU plan area, would alter the capacity assessment and sewer upgrades may be needed to achieve optimal hydraulic capacity. However, the City's Sewer Master Plan and Capital Improvement Program process would adequately prioritize necessary projects as developments under the GPU occur. Additionally, any project within the City and under the GPU that goes through the entitlement process would be required to perform a sewer monitoring study with submittal and review of the study by City staff. If the sewer system is found to be deficient, the developer would be required to upsize the portion of the sewer pipe within the frontage of their property or pay into the fair-share agreement currently employed by the City. Therefore, Impact 5.18-1 of the GPU PEIR concluded that with implementation of RR U-1 through RR U-2 and GPU Policies PS-3.2 and PS-3.12, impacts related to the relocation or construction of new or expanded wastewater facilities would be less than significant.

Proposed Project Impact Analysis

The proposed project would result in an increase in wastewater generation due to the project site's change in land use from commercial to mixed-use (i.e., residential uses and higher density would result in greater wastewater generation). The existing peak flows, proposed peak flows, and difference in peak flows with implementation of the project are shown in Table 4.15-5: Existing and Proposed Wastewater Peak Flows.

Table 4.15-5: Existing and Proposed Wastewater Peak Flows

Tributary	Existing Peak Flow (cfs)	Proposed Peak Flow (cfs)	Difference (cfs)
Plaza Drive	0.2000	0.2000	-0.0000
Sunflower Avenue	0.0586	0.3939	+0.3410
Bear Street	0	1.4652	+1.4652
Total	***0.2586***	***2.0588***	**+1.7925**

Notes: cfs = cubic feet per second.
Source: Tait & Associates, 2024, Sewer Capacity Study (Appendix K).

As shown in Table 4.15-5: Existing and Proposed Wastewater Peak Flows, for the Plaza Drive Tributary, the proposed generated flow of 0.200 cfs would match the existing flow of 0.200 cfs and no additional wastewater capacity would be required. As part of project development requirements, the Sewer Capacity Study, included as Appendix K, was submitted to OC San to verify capacity of the County sewer mains. OC San review identified that there is existing capacity within the Sunflower trunk main; however, the smaller VCP sewer mains in Bear Street and Plaza Drive have no additional capacity beyond current discharges. Thus, the proposed project would include the construction of an on-site private sewer network that would convey a majority of sewer flows generated west of Plaza Drive within a private sewer network to connect to the City's VCP sewer main in Sunflower Avenue and ultimately discharge to the OC San Sunflower trunk sewer main located near the southwest corner of the project site. A portion of the sewer flows generated to the east of Plaza Drive would be connected to the existing OC San VCP sewer main in Plaza Drive via construction of a new City sewer main/lateral to match the existing discharge rates generated from the project site. The remainder of the sewer flows from the site would be directed to the City VCP sewer main located in Sunflower Avenue to utilize available existing capacities in the City's system. All new connections would be constructed per City and OC San standards. Final alignment, points of connections, and limits of sewer removal and replacement would be developed during the design permitting phase based on the results of final studies and City input.

All proposed wastewater infrastructure improvements and connections would comply with the City of Santa Ana Design Guidelines for Water and Sewer Facilities, City of Santa Ana's Construction Standards, and City and OC San standards, which provide design criteria and construction methods. Construction impacts associated with the installation of new sewer connections and facilities would be temporary and would primarily involve trenching in order to place the lines below ground. Further, the proposed wastewater infrastructure improvements would be located in areas within the project site and in previously disturbed roadways, and thus, the impacts from installation and upgrades of the proposed on-site private sewer network are already accounted for in the various resource sections of this Supplemental EIR. As stated above, the analysis in the GPU PEIR accounted for wastewater infrastructure improvements associated with the buildout of the GPU, including the proposed project. Therefore, the proposed project's impacts related to the relocation or construction of new or expanded wastewater facilities would be less than significant and consistent with the impacts disclosed in the GPU PEIR.

Stormwater

GPU PEIR Impact Summary

According to Impact 5.18-5 of the GPU PEIR, the City is largely built out and there are no major areas within the City that are undeveloped. However, in some areas, single-family homes and vacant lots would be redeveloped into higher-intensity uses that could increase peak-flow runoff under buildout of the GPU. The GPU would include storm drain improvement projects that may be beneficial to ensure that the future developments proposed under the GPU would not result in significant hydrology impacts. These improvement projects under the GPU include improvements to the Garden Channel between Edinger and Sunflower, along Grand Avenue between Santa Clara and the Santa Fe Channel within the regional Santa Fe Watershed, and to Lane Channel, which includes demolishing and replacing a portion of damaged concrete-lined channel. As part of the City and County's development process, future development may require detailed hydrology studies and/or on-site detention systems to reduce potential increase in runoff. Further, the City would continue monitoring its storm drain system for improvement needs and may review/update its MPD to plan for future drainage needs. Furthermore, GPU policies require expanding and maintaining storm drain facilities to accommodate the needs of existing and planned development and to update the Drainage Master Plan to prioritize improvements, if needed, to address any existing system deficiencies. GPU policies also encourage site drainage features that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events on private and public developments. Therefore, Impact 5.18-5 of the GPU PEIR concluded that with implementation of RR HYD-4 and the relevant GPU Policies PS-3.4, PS-3.5, and S-1.7, impacts related to the relocation or construction of new or expanded stormwater facilities would be less than significant.

Proposed Project Impact Analysis

As discussed in Section 4.7, Hydrology and Water Quality of this Supplemental EIR, the proposed project's grading and storm drain network would be designed to match the existing drainage and flow patterns to best utilize the capacities available in the existing public storm drain system. The project would integrate bio-filtration methods, pervious surfaces, and selective plant materials to encourage on-site water retention. Specifically, the project would result in approximately 85,214 square feet of pervious surfaces on the ground floor. The proposed project would incorporate the various planting concepts for the open space areas of the project (refer to Figure 3-14 of Chapter 3, Project Description). Specifically, drought-tolerant plants, California natives, and low-water turf would be utilized to provide pervious surfaces throughout The Village site.

Final routing of the storm drain system may require the construction of underground detention systems to handle a minimum of the 10-year design storm, per the latest version of the Orange County Local Drainage Manual. Due to the high podium building drainage demand and the presence of multiple subterranean garage entrances, on-site drainage systems would be sized to protect all garage entrances from the 100-year storm street ponding elevation. Refer to Figure 3-15, Existing and Proposed Storm Drain System, of Chapter 3, Project Description, for a schematic layout of the proposed storm drain network. Final alignment and points of connections would be developed during the design permitting phase based on the results of final studies and City input.

The proposed drain improvements would be constructed within previously disturbed roadways and thus, the impacts from installation and upgrades to the storm drain system are already accounted for in the various resource sections of this Supplemental EIR. Therefore, the proposed project's impacts related to the relocation or construction of new or expanded stormwater facilities would be less than significant and consistent with the impacts disclosed in the GPU PEIR.

Dry Utilities

GPU PEIR Impact Summary

According to Impact 5.18-7 of the GPU PEIR, the net increase in forecast electricity demand at GPU buildout compared to existing conditions is about 256 million kilowatt hours per year, or 256 gigawatt hours per year. The total mid-electricity consumption in SCE's service area is forecast to increase by approximately 12,723 gigawatt hours between 2015 and 2027, and therefore, the forecast increase in electricity demand for the GPU area would be well within the forecasted demand in SCE's service area. The net increase in natural gas demand by full buildout of the GPU compared to existing conditions would be about 12 million therms per year. Total natural gas supplies available to SoCalGas in the year 2019 is estimated at 3,385 million cubic feet per day (MMCF/day). Supplies are forecasted to remain constant at 3,775 MMCF/day from 2020 through 2035. Total natural gas consumption in SoCalGas' service area is forecast to decline slightly from 2,591 MMCF/day in 2019 to 2,313 MMCF/day in 2035. The net increases in natural gas demands due to the GPU buildout are within the amounts that SoCalGas forecasts that it will supply to its customers. As such, Impact 5.18-7 of the GPU PEIR concluded that with implementation of RR U-10, RR U-11, and GPU Policies CN-1.4, CN-1.7, CN-3.1, CN-3.2, CN-3.5, CN-3.7, CN-3.8, CN-3.10 EP-2.9, UD-2-11, LU-4.3, and LU-4.4, GPU buildout would not require SCE or SoCalGas to obtain additional electricity or natural gas supplies and impacts would be less than significant.

Proposed Project Impact Analysis

The proposed project would result in service lines for new buildings to be extended or relocated from the existing infrastructure. As discussed in Section 4.3, Energy, of this Supplemental EIR, the CEC developed 2024 to 2040 forecasts for energy consumption and peak demand in support of the 2023 Integrated Energy Policy Report for each of the major electricity and natural gas planning areas and the State, based on the economic and demographic growth projections. CEC forecasted baseline electricity consumption grows at a rate of about 1.7 percent annually through 2040. The natural gas consumption grows at a rate of about 0.2 percent annually through 2035. The project's operational energy consumption at full buildout (Phase 1 through Phase 5) would result in an annual electricity and natural gas consumption of 14,173 MWh and 256,650 therms, respectively. This would represent a net increase of 11,027 MWh and 187,738 therms from existing conditions. This net increase would account for approximately 0.602 percent in electricity consumption and approximately 0.309 percent in natural gas consumption of the City's consumption in for the buildout year of 2045. The project would account for approximately 0.055

percent in electricity consumption and approximately 0.033 percent in natural gas consumption of the current Countywide usage, and approximately 0.602 percent in electricity consumption and approximately 0.309 percent in natural gas consumption of the current Citywide usage. Moreover, while the project would increase energy demand at the site compared to existing conditions, it would be required to comply with the latest applicable Building Energy Efficiency Standards and CALGreen requirements which provide efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting reducing energy usage. The project would also install solar panels on at least 30 percent of the roof area of buildings to generate electricity onsite, offsetting demand from SCE's electrical distribution system. As such, energy consumption for the project would be below CEC's forecasts, the City's forecasted consumption for the proposed buildout of the General Plan in 2045, and the current Countywide usage. Therefore, project development would not require SCE or SoCalGas to obtain new or expanded electricity or natural gas facilities, other than those proposed on-site. Thus, the proposed project's impacts related to the relocation or construction of new or expanded electrical or natural gas facilities would be less than significant.

The existing communication services such as telephone, wi-fi, and cable television would continue to be provided to the project site by multiple providers, including Charter (Spectrum) and AT&T. As various telecommunications providers are available in the region, no significant expansion or construction of the telecommunications network is anticipated. Therefore, the proposed project's impacts related to the relocation or construction of new or expanded telecommunications facilities would be less than significant.

Conclusion

As analyzed above, implementation of the project would not result in significant environmental effects related to the relocation or construction of new or expanded water, wastewater treatment, stormwater, electric power, natural gas, or telecommunications facilities. Impacts would be less than significant, consistent with the impacts disclosed in the GPU PEIR.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to the relocation or construction of new or expanded utility facilities disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold U-1 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold U-1 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

U-2 Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? *[GPU PEIR Impact 5.18-4]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to Impact 5.18-4 of the GPU PEIR, buildout of the GPU would result in increased water demand throughout the City due to the total increase of 36,261 dwelling units and increase of approximately 5,849,220 square feet of non-residential uses. The GPU PEIR utilized the information and projections of the City's 2015 UWMP to assess water supply and demand of the GPU. Full implementation of the GPU would result in an increase of water demand of 6,950 AFY, from approximately 31,151 AFY to 38,101 AFY. The 2015 UWMP projected a 2040 total water demand of 40,036 AFY to 42,438 AFY (depending on climate conditions), which is greater than the total of 38,101 AFY associated with GPU implementation. Further, the GPU PEIR states the proposed increase of 6,950 AFY under implementation of the GPU would be well within the planned increase in water demands from OCWD projections of 53,779 AFY. In addition, MWD's 2015 UWMP stated that MWD would be able to meet the demands of its member agencies, including the City of Santa Ana, through 2040. Therefore, Impact 5.18-4 of the GPU PEIR concluded that with implementation of RR U-5, RR U-7, and the GPU Policies EP-2.9, PS-3.7, PS-3.8, CN-4.1, CN-4.2, CN-4.3, CN-4.4, and CN-4.5, the GPU's water demand increases would be within the planned supplies from the City, OCWD, and MWD during normal-dry and multiple-dry year scenarios, and impacts to water supply would be less than significant.

Proposed Project Impact Analysis

Construction

Water demand for the proposed project during construction activities would result from activities such as soil compaction, dust control, and truck wheel washing. Water for construction activities would be supplied by water trucks and/or through connections to nearby water distribution lines. Construction activities would occur intermittently throughout the construction period, would be temporary in nature, and would be less than the project's estimated operational water demand discussed below. Therefore, construction impacts related to water supply would be less than significant.

Operation

The project has completed the requirements of RR U-7 by preparing a project water supply assessment; the results of the analysis and evaluation of the project's effects with respect to water supply are incorporated into the analysis herein.

As stated above, the water demand for the 164,049 square feet of existing commercial retail uses on the project site is approximately 43,000 gpd or 48 AFY. The existing uses on the project site would be demolished in order to develop, in total, up to 1,583 residential units (encompassing approximately 1,850,000 square feet of building space), 80,000 square feet of retail space, 300,000 square feet of office space, and approximately 7.5 acres of publicly accessible open space and common areas. The WSA prepared for the proposed project estimated that the proposed land uses would generate a water demand of 387 AFY. As shown in Table 4.15-6: Proposed Water Demand by Land Use, the net water demand (proposed minus existing) generated by the project site at buildout would be 339 AFY which is approximately 1 percent of the overall City water demand (339 AFY/33,240 AFY). Based on the purchase agreement with MWD, the City is able to purchase more water from MWD, beyond its annual purchase commitment, should the need arise. Even with the maximum amount of water that could be needed for the project, the City is still within the limit of the purchase agreement.

Table 4.15-6: Proposed Water Demand by Land Use

Land Use	Dwelling Unit	Area (ac)	Demand Factor	Water Demand (gpd)	Water Demand (AFY)
Residential	1,583	-	190 gpd/DU	300,770	337
Commercial	-	8.72	2,500 gpd/acre	21,800	24
Open Space/ Landscape	-	7.5	3,000 gpd/acre	23,400	26
Existing Commercial		17.2	2,500 gpd/acre	-43,000	-48
Total	**-**	**-**	**-**	**302,970**	**339**

Notes: ac = acre, gpd = gallons per day, DU = dwelling unit, AFY = acre-feet per year.
Source: Michael Baker International, 2024, Water Supply Assessment (Appendix J).

For a conservative approach, the WSA also assessed the project's future water demand based on methodology described in the City's 2020 UWMP and Forecast Memorandum. Table 4.15-7: Project's Future Water Demand calculates the projected water demand associated with the proposed project's forecasted uses which considers changes in behaviors such as decreases in water use efficiency measures for multi-family residential uses, increases in commercial water use as businesses expand, and no changes in uses to landscaping as demands for large landscape applications are projected to stay consistent.[24] Taking into account the existing water demand, the projected water demand from 2025 through 2045 for the project would range from 300 AFY to 286 AFY.

Table 4.15-7: Project's Future Water Demand

Land Use	2025 (AFY)	2030 (AFY)	2035 (AFY)	2040 (AFY)	2045 (AFY)
Residential	297	291	285	278	278
Commercial	25	28	29	30	30
Open Space/ Landscape	26	26	26	26	26
Existing Commercial	-48	-48	-48	-48	-48
Total	**300**	**297**	**292**	**286**	**286**

Notes: AFY = acre-feet per year.
Source: Michael Baker International, 2024, Water Supply Assessment (Appendix J).

The WSA also assessed water supplies available to the project during normal, single-dry, and multiple-dry years to see if the supply would meet the projected water demand for the project, in addition to the City's existing and planned future uses. The assessment found that for normal, single-dry, and multiple-dry years, the project's demand would be met by the City's water supply. The City depends on a combination of imported and local supplies to meet its water demand and projects to fully meet is customers' demands through 2045 due to a diversified supply and

[24] Arcadis, 2021, City of Santa Ana 2020 Urban Water Management Plan, available at: https://www.santa-ana.org/water-plans-and-documents/.

conservation measures.[25] The 2020 UWMP water supply forecasts considered the buildout potential of City's seven specific plan/special zoning areas adopted prior to the GPU and five focus areas identified in the GPU, including the South Bristol Street Focus Area within which the project site is located. The 2020 UWMP states that the City's future planned developments beyond 2020 will primarily be multiuse projects, in the focus areas listed in the General Plan of the City.[26] The Project would add a projected 339 AFY of water demand in the current year, which is approximately 1 percent of the overall City water demand. Thus, the project's net water demand of 339 AFY and forecasted water demands ranging between 300 AFY and 286 AFY from 2025 to 2045 were accounted for in the 2020 UWMP. Moreover, the analysis in the GPU PEIR was based on the 2015 UWMP, which assumed greater growth in the City and a corresponding higher water demand than the current 2020 UWMP.

In addition, the project would comply with RR U-5 to abide by water conservation and efficiency requirements required by the Santa Ana Municipal Code, RR U-6 to pay water connection fees. The proposed project would also comply with the policies of the GPU, including Policy CN-4.2 and Policy CN-4.4, for water conservation, such as installing drought-tolerant plants, low-water turf surface, bio-filtration planters, green roofs, and localized capture and reuse. To reduce water usage, the project would consider spray irrigation for turf and ground-cover areas and drip/flood irrigation for areas with trees and vine.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to water supply disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold U-2 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold U-2 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

U-3 ***Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*** *[GPU PEIR Impact 5.18-2]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to Impact 5.18-2 of the GPU PEIR, buildout of the GPU would result in an increase of 6.8 mgd in wastewater generation. The GPU PEIR states the OC San's Treatment Plant No. 1, which serves the General Plan area, has a treatment capacity of 182 mgd and an average wastewater flow of approximately 120 to 130 mgd. As such, the plant has a minimum residual

[25] Arcadis, 2021, City of Santa Ana 2020 Urban Water Management Plan, available at: https://www.santa-ana.org/water-plans-and-documents/.

[26] Ibid.

capacity of about 52 mgd and would be able to accommodate the 6.8 mgd increase in wastewater flows generated by the buildout of the GPU. Further, the groundwater replenishment system facility in Fountain Valley where wastewater is sent from OC San for further treatment produces 100 mgd of purified water. As of 2023, the plant has an ultimate capacity of 130 mgd. Additionally, if development under the GPU requires additional sewer flow connections through OC San sewer lines or pump stations, it would be required to pay a sewer connection fee prior to issuance of building permits. Any sewer utility infrastructure improvement would be designed, constructed, and operated in accordance with the City's Design Guidelines for Water and Sewer Facilities, be required to abide by the requirements of OC San's ordinances Nos. 25 and 48, as well as the wastewater discharge requirements of the NPDES permit (Order No. R8-2012-0035). Therefore, with implementation of RR U-3 and GPU Policy PS-3.3, Impact 5.18-2 of the GPU PEIR concluded that the existing wastewater infrastructure would have sufficient capacity for buildout of the GPU and impacts would be less than significant.

Proposed Project Impact Analysis

The proposed project would result in an increase in wastewater flows generated from the project site. Consistent with the methodology utilized in the GPU PEIR, which calculated the wastewater flows by multiplying the water demand by a 0.95 sewer factor, the proposed project would result in a 0.27-mgd increase in wastewater flows to Treatment Plant No. 1.[27] As stated above, Treatment Plant No. 1 has a minimum residual treatment capacity of 52 mgd. Therefore, Treatment Plant No. 1 would have sufficient capacity to treat the 0.27 mgd of wastewater flows generated by the proposed project and impacts would be less than significant. As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to wastewater capacity disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold U-3 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold U-3 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

U-4 Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? *[GPU PEIR Impact 5.18-6]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to Impact 5.18-6 of the GPU PEIR, the GPU would generate approximately 3.14 million pounds of solid waste per day for the buildout year, or a net increase of approximately 401,408

[27] Proposed water demand of 290,565 gpd minus existing water demand of 9,415.12 gpd = net water demand of 281,149.88 gpd.
Proposed net water demand of 281,149.88 gpd x 0.95 sewer factor = 267,092.39 gpd or 0.27 mgd.

pounds per day compared to existing conditions. The GPU PEIR states the Frank R. Bowerman Landfill has a residual capacity of 2,917 tons per day, or about 5.8 million pounds per day with an estimated closing date of 2053. Impact 5.18-6 of the GPU PEIR concluded that given the residual capacity of the Frank R. Bowerman Landfill, which exceeds the forecasted daily solid waste generation of the GPU by approximately 2.7 million pounds per day, it would be anticipated that waste generated by buildout of the GPU could be accommodated by existing landfill facilities. Impact 5.18-6 of the GPU PEIR also states OC Waste and Recycling has confirmed that the Orange County solid waste landfill system would be able to accommodate the proposed project's long-term solid waste disposal needs while maintaining the 15-year countywide solid waste landfill capacity as required by AB 939. Development of the GPU planning area must also comply with CalGreen by recycling and/or salvaging for reuse at least 65 percent of nonhazardous construction and demolition waste and with AB 341, which mandates recycling for commercial and multi-family residential uses. Therefore, Impact 5.18-6 of the GPU PEIR concluded that with implementation of RR U-7 and RR U-8 and GPU policies related to solid waste, impacts would be less than significant.

Proposed Project Impact Analysis

Construction

The proposed project would include excavation, demolition of the existing buildings, and construction of the proposed buildings, which would generate solid waste. Table 4.15-8: Construction Waste Generation shows the total estimated construction waste generated by the proposed project.

As shown in Table 4.15-8: Construction Waste Generation, construction of the proposed project would generate a total of approximately 17,846 tons over the course of a 20-year period, a large percentage of which would occur during phase one, which includes demolition of the existing uses at the project site. All future construction activities would be required to demonstrate compliance with AB 939, which requires that at least 50 percent of waste produced is recycled, reduced, or composted. In addition, the project would be constructed in accordance with CALGreen, which requires recycling a minimum of 65 percent of the nonhazardous construction and demolition debris, and submittal of a construction waste management plan. Compliance with these regulations, as well as RR U-7 requiring implementation of a construction waste management plan, would ensure the project's construction-related solid waste impacts would be less than significant.

Table 4.15-8: Construction Waste Generation

Construction Activity/Land Use	Quantity (sq ft)	Generation Rate (lbs/sq ft)	Construction Waste Amount (tons)
Demolition of Existing Nonresidential Use	164,049	158	12,960
Construction of Proposed Nonresidential Use	380,000	4.39	825
Construction of Proposed Residential Use	1,850,000	4.39	4,061
		Total:	**17,846**

Notes: lbs = pounds, sq ft = square foot.

Source: United States Environmental Protection Agency, 2009, Estimating 2003 Building Related Construction and Demolition Materials Amounts, available at: https://www.epa.gov/sites/default/files/2017-09/documents/estimating2003buildingrelatedcanddmaterialsamounts.pdf.

Operation

The proposed project would introduce new residential, office, and commercial uses that would generate solid waste. Table 4.15-9: Operational Waste Generation, shows the total estimated operational waste generated by the proposed project.

Table 4.15-9: Operational Waste Generation

Land Use	Quantity	Generation Rate[a]	Operational Waste Amount (lbs/day)
Nonresidential	380,000 sq ft	0.043 lbs/sq ft/day	16,340
Residential	1,583 residential units	12.23 lbs/household/day	19,360
		Total	**35,700**

Notes: lbs = pounds, sq ft = square foot.
[a] City of Santa Ana, 2021, General Plan Update PEIR Page 5.18-21, available at: https://general-plan-santa-ana-ca.proudcity.com/other-resources/environmental-documents/.
Source: Michael Baker International, 2024, Water Supply Assessment (Appendix J).

As shown in Table 4.15-9, operation of the proposed project would generate a total of approximately 35,700 lbs per day, or 17.85 tpd. As stated above, the maximum permitted capacity for the Frank Bowerman Sanitary Landfill and the Olinda Alpha Landfill are 11,500 tpd and 8,000 tpd, respectively. Both landfills have an average daily disposal rate of approximately 7,000 tpd, indicating that they would have sufficient capacity to accommodate the project's 17.85 tpd of solid waste. Moreover, the project's 17.85 tpd of solid waste would be less than 1 percent of the residual disposal capacity of the Frank Bowerman Sanitary Landfill. The proposed project would also be required to comply with RRU-8, which states that all development pursuant to the GPU would be required to store and collect recyclable materials and green waste in accordance with AB 341 and AB 1826. Additionally, the proposed project would comply with Policy PS-3.10 of the GPU to incorporate recycling and organics collection activities to align with state waste reduction goals. Therefore, the project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure. The project impacts would be less than significant, consistent with the impacts disclosed in the GPU PEIR.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to solid waste capacity disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold U-4 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold U-4 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

U-5 Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste? *[GPU PEIR Impact 5.18-6]*

IMPACT ANALYSIS

GPU PEIR Impact Summary

According to Impact 5.18-6 of the GPU PEIR, all development pursuant to the GPU would comply with Section 4.408 of the 2019 California Green Building Code Standards, which requires that at least 65 percent of nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse. Development under the GPU would also comply with the requirements of AB 341, which mandates recycling for commercial and multi-family residential land uses, and AB 1826, which requires businesses that generate certain amounts of organic waste to recycle organic matter. Development under the GPU would adhere to policies that also encourage land uses and strategies that reduce waste generation and support infill development projects that provide adequate and creative solutions for waste and recycling collection activities. Therefore, Impact 5.18-6 of the GPU PEIR concluded that the GPU would comply with federal, state, and local solid waste regulations and impacts would be less than significant.

Proposed Project Impact Analysis

As discussed in Threshold U-4, construction of the proposed project would be required to comply with the requirements of AB 939, which requires that at least 50 percent of waste produced is recycled, reduced, or composted, and CALGreen, which requires recycling a minimum of 65 percent of the nonhazardous construction and demolition debris and submittal of a construction waste management plan. Operation of the proposed project would also be required to comply with AB 939; AB 341, which requires diversion of a minimum of 75 percent of operational solid waste; and Chapter 16 Article II of the City's Municipal Code, which incorporates the waste requirements of SB 1383 for single-family, multi-family, and commercial uses. Additionally, the project would implement waste disposal services to allow for trash, recycling, and food waste for all residential and commercial uses. Therefore, the proposed project would comply with applicable state and local regulations related to solid waste. Impacts would be less than significant, consistent with the impacts disclosed in the GPU PEIR.

As such, the project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts related to solid waste regulations disclosed in the GPU PEIR, which were determined to be less than significant. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or mitigation measures.

MITIGATION MEASURES

Impacts related to Threshold U-5 would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to Threshold U-5 were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

4.15.6 CUMULATIVE IMPACTS

IMPACT ANALYSIS

Section 4.2.6, Cumulative Impacts Analysis of this Supplemental EIR lists 32 related projects in the vicinity of the project. Of the 32 related projects, 20 are located within the boundaries of the City of Santa Ana, eight are located in the City of Costa Mesa, and the remaining 4 are located in the City of Irvine.

Water

GPU PEIR Impact Summary

According to the GPU PEIR, the extent of analysis of cumulative impacts for water supply and distribution systems is contiguous with the service areas of the City, OCWD, and MWD. The GPU PEIR did not identify any significant cumulative impacts related to water supply and distribution systems.

Proposed Project Impact Analysis

The geographic context for the analysis of cumulative impacts to water supply and infrastructure is the City's water service area, which covers 27.5 square miles and includes the City of Santa Ana and a small neighborhood in the City of Orange, near Tustin Avenue and Fairhaven by the northeast corner of Santa Ana. Buildout of the GPU and Related Projects Nos. 1 through 20 are located within the boundaries of the City's water service area and would increase water usage, thus cumulatively increasing the need for water supply and infrastructure capacity, potentially requiring the relocation or construction of new or expanded water facilities. However, as discussed above, the City's 2020 UWMP forecasts the water supply and demand for its water service through 2045. These supply and demand forecasts considered the GPU buildout assumptions and accounted for the water demand generated by the types of land uses proposed by the related projects within the City's water service area. As shown in Table 4.15-2: Normal, Single Dry Year, and Multiple Dry Year Supply and Demand above, the City would have adequate water supplies to meet the water demand during normal, single dry, and multiple dry years through 2045. In addition, the City is able to purchase more water from MWD if necessary. Further, projects resulting from GPU buildout and the related projects would be required to comply with regulatory requirements and GPU policies that promote water conservation. These requirements would include hydraulic modeling to confirm that there is sufficient infrastructure capacity to serve GPU buildout and the related projects within the City. In addition, related projects that meet the project type classifications of SB 610 and SB 221 would be required to prepare a WSA to assess water supply sufficiency. Furthermore, water service connections and infrastructure improvement for each related project must be reviewed by the City and comply with the City of Santa Ana Design Guidelines for Water and Sewer Facilities and City of Santa Ana's Construction Standards, to ensure that the construction of these infrastructure improvements would not cause significant environmental effects. Therefore, buildout of the GPU and 20 related projects within the City's water service area would have less than significant cumulative impacts related to water supply or infrastructure.

As analyzed above under Thresholds U-1 and U-2, the proposed project would have a less than significant impact on the City's water infrastructure and the City would have sufficient water supplies to serve the project during normal, single-dry, and multiple-dry years. Therefore, the proposed project's contribution to cumulative impacts to water supply or infrastructure would not be cumulatively considerable, and as such, cumulative impacts to water supply or infrastructure would be less than significant.

Wastewater

GPU PEIR Impact Summary

According to the GPU PEIR, the extent of analysis of cumulative impacts for wastewater conveyance and treatment is contiguous with the service areas of the City and OC San. The GPU PEIR did not identify any significant cumulative impacts related to wastewater conveyance and treatment.

Proposed Project Impact Analysis

The geographic context for the analysis of cumulative impacts to wastewater conveyance and treatment would be the sewer service area of the City, which encompasses 27.2 square miles, and OC San's service area, which covers a 479-square-mile area of central and northwest Orange County and includes the cities of Santa Ana, Costa Mesa, and Irvine. Projects under buildout of the GPU and the 20 related projects are located within the City's sewer service area; all 32 related projects are located within the service areas of OC San. Buildout of the GPU and related projects would increase wastewater generation, thus cumulatively increasing wastewater generation and infrastructure capacity, potentially requiring the relocation or construction of new or expanded wastewater facilities. However, projects building out the GPU and the related projects would be required to perform and submit a sewer monitoring study to determine the adequacy of the sewer system to serve GPU buildout and the related projects and to upgrade sewer mains and lines if there is insufficient capacity or pay into the City's current fair-share agreement. In addition, projects building out the GPU and the related projects would be required to pay the OC San Capital Facilities Charge for new connections to the OC San System. Related projects located within the City of Santa Ana would adhere to the City of Santa Ana Design Guidelines for Water and Sewer Facilities and City of Santa Ana's Construction Standards for any sewer upgrades. Further, the City and OC San would continue to assess the sewer infrastructure and capacity for ongoing maintenance and needs. Moreover, wastewater flows from the GPU buildout and related projects would be conveyed to OC San's Treatment Plant No. 1 or Treatment Plant No. 2 for treatment. As discussed above, OC San's Treatment Plant No. 1 has a capacity of 320 mgd and Treatment Plant No. 2 has a capacity of 312 mgd for a combined total capacity of 632 mgd. As such, GPU buildout and the related projects would result in less than significant cumulative impacts related to wastewater conveyance facilities.

As analyzed under Threshold U-1 and Threshold U-4 above, the project's proposed connections and upgrades to the sewer lines would result in less-than-significant impacts. In addition, wastewater generated by the proposed project would be adequately served by OC San's Treatment Plant No. 1 and impacts related to wastewater treatment would be less than significant. Therefore, the proposed project's contribution to cumulative impacts to wastewater conveyance and treatment infrastructure would not be cumulatively considerable, and as such, cumulative impacts would be less than significant.

Stormwater

GPU PEIR Impact Summary

According to the GPU PEIR, the extent of analysis of cumulative impacts for storm drainage systems is contiguous with the City and OCFCD service areas. The GPU PEIR did not identify any significant cumulative impacts related to storm drainage systems.

Proposed Project Impact Analysis

Projects under buildout of the GPU, including the 20 related projects within the City are located within the City's service area; all 32 related projects would be located within the service area of OCFCD. Depending on the project type and design (e.g., new construction or significant reconstruction), buildout of the GPU and all related projects could cumulatively increase stormwater flows, potentially requiring the relocation or construction of new or expanded stormwater facilities. However, GPU buildout and the related projects would adhere to the requirements of the NPDES and applicable permits (e.g., MS4, Industrial General Permit, and Construction General Permit), which prevent post-development stormwater flows from exceeding pre-development flows. Further, GPU buildout and the related projects would undergo the development and review process and require hydrology studies as needed to assess stormwater runoff and drainage. As such, GPU buildout and the related projects would result in less than significant cumulative impacts related to stormwater. As discussed in Threshold U-1, the proposed project's grading and storm drain network would be designed to match the existing drainage and flow patterns to best utilize the capacities available in the existing public storm drain system. The project would integrate bio-filtration methods, pervious surfaces, and selective plant materials to encourage on-site water retention. The project's grading and storm drain network design would ensure less than significant impacts related to stormwater drainage. Therefore, the proposed project's contribution to cumulative impacts related to stormwater or infrastructure would not be cumulatively considerable, and thus, cumulative impacts to stormwater or infrastructure would be less than significant.

Solid Waste

GPU PEIR Impact Summary

According to the GPU PEIR, the extent of analysis of cumulative impacts for solid waste collection and disposal services is contiguous with the Waste Management of Orange County service area. The GPU PEIR did not identify any significant cumulative impacts related to solid waste collection and disposal services.

Proposed Project Impact Analysis

Buildout of the GPU and all related projects would cumulatively increase the generation of solid waste. As discussed above, solid waste generated by GPU buildout and the related projects within the City of Santa Ana would be primarily disposed of at the Frank R. Bowerman Sanitary Landfill in Irvine. Along with the Olinda Alpha Landfill in Brea, both landfills provide service to cities within Orange County, including Costa Mesa (Related Project Nos. 21 through 28) and Irvine (Related Project No. 29 through 32). As discussed above, both landfills have an average daily disposal rate of approximately 7,000 tpd. While the Olinda Alpha Landfill is operating at capacity, the Frank R. Bowerman Sanitary Landfill has a residual capacity of 2,917 tons per day. The Orange County solid waste landfill system would continue maintain the 15-year countywide solid waste landfill capacity as required by AB 939. GPU buildout and the related projects must also comply with CALGreen by recycling and/or salvaging for reuse at least 65 percent of nonhazardous construction and demolition waste and with AB 341, which mandates recycling for commercial and multi-family residential uses. Therefore, buildout of the GPU and related projects would have less than significant cumulative impacts related to solid waste and compliance with solid waste regulations.

As discussed in Threshold U-4, the project's 17.85 tpd of solid waste would be less than 1 percent of that residual disposal capacity. Therefore, the Frank Bowerman Sanitary Landfill has sufficient capacity to accommodate solid waste generated by the proposed project until its expected closure

date in 2053. Moreover, the project would comply with all regulatory requirements to reduce solid waste generation, including the requirements of AB 939, CALGreen, AB 341, and AB 1826, which would reduce the amount of solid waste generated by the proposed project. Therefore, the proposed project's contribution to cumulative impacts related to solid waste would not be cumulatively considerable, and as such, cumulative impacts to solid waste would be less than significant.

Dry Utilities

GPU PEIR Impact Summary

According to the GPU PEIR, the extent of analysis of cumulative impacts for dry utilities (i.e., natural gas and electricity services) is contiguous with the SoCalGas and SCE service areas. The GPU PEIR did not identify any significant cumulative impacts related to dry utilities.

Proposed Project Impact Analysis

As discussed in Section 4.3, Energy, of this Supplemental EIR, buildout of the GPU, 32 related projects, and additional forecasted growth, which would occur in the SCE and SoCalGas service areas, would increase the need for dry utility services. Therefore, the GPU buildout and related projects would cumulatively increase the need for dry utility services, potentially including new or expanded electrical and natural gas facilities. Although future developments within the SCE and SoCalGas service areas would result in the use of renewable and nonrenewable electricity and natural gas resources during construction and operation, which could limit future availability, the sizes and types of uses proposed by the GPU buildout and 32 related projects would use such resources on a relatively small scale. Additionally, future development projects building out the GPU and the related projects would be expected to incorporate energy conservation features in compliance with applicable regulations, such as the Title 24 standards, which include the CALGreen Code. Furthermore, SCE and SoCalGas implement long-range planning methods that would account for regional and local growth expectations for their respective service areas. As such, the potential cumulative impacts related to dry utility facilities from the GPU buildout and the related projects would be less than significant.

As analyzed in Threshold U-1, the project would result in a net increase of approximately 0.602 percent in electricity consumption and approximately 0.309 percent in natural gas consumption of the City's consumption in for the buildout year of 2045. The project would account for approximately 0.055 percent in electricity consumption and approximately 0.033 percent in natural gas consumption of the current Countywide usage. The proposed project would not result in the need for expanded facilities from SoCalGas, SCE, or telecommunications providers, as the existing capacities for dry utilities would be sufficient to meet the project's needs. Thus, the proposed project's contribution to cumulative impacts to dry utility services would not be cumulatively considerable, and as such, cumulative impacts to dry utility services would be less than significant.

MITIGATION MEASURES

Cumulative impacts related to utilities and service systems would be less than significant. Therefore, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Cumulative impacts related to utilities and service systems were determined to be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact level remains less than significant.

CHAPTER 5
OTHER CEQA CONSIDERATIONS

State CEQA Guidelines Section 15126 requires that all aspects of a project be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation (California Code of Regulations. Title 14, Section 15126). As part of this analysis, the EIR must identify the following types of impacts:

- Significant environmental effects which cannot be avoided if the proposed project is implemented;
- Significant irreversible environmental effects which would be involved in the proposed project should it be implemented;
- Effects Found Not to be Significant; and
- Growth-inducing impacts of the proposed project.

The analysis in this chapter identifies each of these types of impacts based on analyses contained in Chapter 4, Environmental Setting, Impacts, and Mitigation Measures.

5.1 SIGNIFICANT AND UNAVOIDABLE EFFECTS

State CEQA Guidelines Section 15126.2(c) requires an EIR to describe "any significant impacts, including those which can be mitigated but not reduced to a level of insignificance." As analyzed in Sections 4.1 through 4.15 and summarized in Section 1, Executive Summary of this Supplemental EIR, the proposed project would not result in any significant impacts beyond those identified in the GPU PEIR that would remain significant, unavoidable, and adverse, after mitigation measures are applied.

The GPU PEIR identified significant and unavoidable impacts related to air quality, cultural resources, greenhouse gas emissions, noise, population and housing, and recreation. However, for the reasons described in Sections 4.1 through 4.15, the proposed project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR. Regardless the following project-level impacts on recreation are considered significant and unavoidable:

- **Recreation Threshold R-1:** Per the GPU PEIR, the population growth related to buildout of the GPU would equate to 1.2 acres of park and recreational facilities per 1,000 residents. This service ratio would not meet the GPU's parkland standard of 3 acres per 1,000 residents. The project's proposed 13.8 acres of outdoor and recreational space (comprised of 7.5 acres of publicly accessible open space and 6.3 acres of private outdoor and amenity spaces), combined with the payment of applicable fees and tax revenues serves to reduce potential impacts discussed in the GPU PEIR. Regardless, since the proposed project would not fully meet the GPU policy of providing 3 acres of parkland and recreation facilities per 1,000 residents, it is reasonably foreseeable that the proposed project would result in the increased use of existing parks and recreational facilities in a manner that results in accelerated substantial physical deterioration of the facilities. As identified in the GPU PEIR, there would be no feasible mitigation measures that would be able to reduce this significant impact, or the project's contribution thereto, to a less than

significant level. As such, impacts would be significant and unavoidable, which is consistent with the findings of the GPU EIR.

- **Recreation Threshold R-2:** Per the GPU PEIR, since in both the existing condition and upon GPU buildout, the City's ratio of park/recreational facility acreage to population would be below the GPU's parkland standard of 3 acres per 1,000 residents, it is anticipated that the City would build new parks and/or expand existing parks. The GPU PEIR concluded that it is possible that development of such facilities could result in significant, unavoidable environmental impacts. The proposed project would not increase the severity of this GPU PEIR impact but would contribute to the impact. As identified in the GPU PEIR, there would be no feasible mitigation measures that would be able to reduce this significant impact, or the project's contribution thereto, to a less than significant level. As such, impacts would be significant and unavoidable, which is consistent with the findings of the GPU EIR.
- **Cumulative Impacts on Recreation:** Together with the contribution from the proposed project buildout of 3,815 persons and 7.5 acres of publicly accessible parks/recreation facilities and open space, the proposed project plus the related projects would result in a total of 14,273 persons and 21.4 acres of publicly accessible park/recreation facilities and open space, for a ratio of 1.5 acres per 1,000 residents. While the proposed project and the related projects would improve the GPU buildout's parkland-per-resident ratio and would be required to provide park and recreational facilities and/or pay in-lieu fees as required by the municipal code, due to the lack of available land to develop new parks or expand existing facilities, the ratio would still remain below the GPU's parkland standard. For this reason, the proposed project's incremental contribution relating to the deficiency of parkland within the City would be cumulatively considerable.

The proposed project would also result in several potentially significant environmental impacts that would be reduced to a less than significant level with the implementation of identified mitigation measures for the following:

- **Air Quality:** Operational impacts from volatile organic compounds (VOCs) associated with area sources, including hearths, consumer products, architectural coatings, and landscape equipment. To reduce VOC emissions, the proposed project would implement project-specific Mitigation Measure (MM) AQ-1 which requires that all landscaping equipment used on site shall utilize at least 50 percent electric landscaping equipment.

  Additionally, there is a potentially significant individual cancer risk and acute hazard risk during project construction at residential sensitive receptors. Implementation of GPU PEIR MM AQ-1 would require the use of construction equipment rated by the USEPA as having Tier 4 emissions limits for engines between 50 and 750 horsepower to reduce the carcinogenic and acute hazard risks.
- **Cultural Resources:** Construction-related impacts to archaeological resources during ground disturbance. To reduce construction-related impacts, the proposed project would implement GPU PEIR MM CUL-6, which would require pre-construction training and construction monitoring for areas with previously undisturbed soil of high sensitivity at the project site.
- **Geology and Soils:** Construction-related impacts to seismic ground shaking, liquefaction, settlement, collapse, subsidence, and expansive soils. To reduce geologic hazards and soils, the proposed project would implement project-specific MMs G-1 and G-2 to prepare a final design-level geotechnical investigation and incorporate its recommendations.

Construction-related impacts to paleontological resources during ground disturbance. To reduce construction-related impacts, the proposed project would implement GPU PEIR MM GEO-2, which in undisturbed depths would require paleontological monitoring, and GPU PEIR MM GEO-3, which would require procedural steps in the event of a fossil discovery. The project would also implement project-specific MM G-3 which requires paleontological monitoring during ground disturbance in native Pleistocene-age soil and bedrock greater than 4 feet in depth.

- **Noise:** Construction-related impacts to noise levels for potential overnight concrete pours. To reduce construction-related noise levels, the proposed project would implement project-specific MM NOI-1, which would require a nighttime construction noise control plan should overnight concrete pours be necessary.
- **Tribal Cultural Resources:** Construction-related impacts to tribal cultural resources during ground disturbance. To reduce construction-related impacts, the proposed project would implement project-specific MM TCR-1 through MM TCR-3, which in undisturbed soils would require Native American monitoring, and GPU PEIR MM CUL-6, as described above.

5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL EFFECTS

According to State CEQA Guidelines Section 15126.2(d), an EIR is required to address any significant irreversible environmental changes that would occur should the project be implemented. As stated in the State CEQA Guidelines Section 15126.2(d):

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Generally, a project would result in significant irreversible environmental changes if:

- The primary and secondary impacts would generally commit future generations to similar uses;
- The project would involve a large commitment of nonrenewable resources;
- The proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy); or,
- The project involves uses in which irreversible damage could result from any potential environmental accident associated with the project. (State CEQA Guidelines Section 15126.2(d).)

5.2.1 Commitment of the Proposed Project's Site for Future Generations

The project site is developed with existing commercial uses. Implementation of the proposed project would continue the commercial uses and also provide residential uses. Secondary effects associated with construction and operation of the proposed project include: emissions of air pollutants (refer to Section 4.1, Air Quality); consumption of non-renewable energy (refer to Section 4.3, Energy); and increased ambient noise due to increased activities (see Section 4.9,

Noise). However, the proposed project implements land uses and activities that were envisioned and analyzed in the GPU PEIR, and as analyzed in the aforementioned sections, the project would not result in unmitigable significant impacts beyond those identified in the GPU PEIR. As a result, the proposed project would not result in a new commitment of the project site for future generations.

5.2.2 Large Commitment of Resources

Resources that would be consumed during project construction include water, electricity, natural gas, fossil fuels, and building materials, such as lumber, cement, steel, copper, other metals, glass, aggregate, asphalt, and composite materials. However, the building materials would largely be used during construction and would not be further consumed during operations. Additionally, use of such resources would not be unusual compared with other construction projects and would not substantially affect the availability of such resources.

During operations, the proposed commercial and residential uses would consume utility resources, such as water, electricity, natural gas, and other petroleum-based fuels, as well as paints, solvents, and cleaner for normal maintenance activities, similar to other residential and commercial uses. The proposed project would not substantially affect the availability of such resources.

5.2.3 Consumption of Resources

Construction and operation of the proposed project would require the use of both renewable and non-renewable resources and construction materials. However, as analyzed in Section 4.3, Energy, the proposed project would not involve the wasteful or unjustifiable use of non-renewable resources during construction or long-term operation. None of the building materials anticipated for the project would be unique, rare, in short supply, or require creation of new resource extraction sites or new manufacturing and delivery channels. The project would meet the most current and latest Title 24 standards for energy efficiency and incorporate all applicable energy efficiency measures (solar panels, high efficiency lighting, energy efficient appliances, etc.), which help to reduce energy consumption. The proposed project site is also located in a designated Transit Opportunity Corridor and would develop the site with residential, commercial, office, and recreation opportunities that would encourage use of public transportation. Further, implementation of the proposed project would also satisfy the achievement of the project objectives identified in Chapter 3, Project Description, which includes objectives that are beneficial to the growth and prosperity of the City.

5.2.4 Irreversible Environmental Damage

State CEQA Guidelines Section 15126.2(d) also requires a discussion of the potential for irreversible environmental damage that could be caused by an accident associated with the proposed project. The project's use of hazardous materials is evaluated in Section 4.6, Hazards and Hazardous Materials. As discussed therein, construction and long-term operation of the project would involve the limited transport, storage, use, and disposal of hazardous materials related to typical residential and commercial uses. However, all hazardous materials used on the project site would be used, stored, and disposed of in accordance with manufacturer's standards and all applicable federal, state, and local requirements such as those set forth by the California Occupational Safety and Health Administration, California Emergency Management Agency, California Department of Toxic Substances Control, and the Orange County Environmental Health Division of the Health Care Agency. Further, the Phase I Environmental Site Assessment prepared for the proposed project did not identify recognized environmental conditions at the site

that would create significant hazards to the public and environment. Therefore, the proposed project would not involve uses in which irreversible damage could result from a potential environmental accident associated with the project.

5.3 EFFECTS FOUND NOT TO BE SIGNIFICANT

California Public Resources Code) Section 21003 (f) states: "…it is the policy of the state that…[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical, and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." This policy is reflected in the State CEQA Guidelines Section 15126.2(a), which states that "[a]n EIR shall identify and focus on the significant effects on the environment" and Section 15143, which states that "[t]he EIR shall focus on the significant effects on the environment." Additionally, State CEQA Guidelines Section 15128 requires that an EIR contain a statement briefly indicating the reasons that various possible effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR.

As detailed below, it is determined that the project's effects related to the environmental topics listed below would not be significant based on the project's environmental setting and development characteristics, which was identified in the project Notice of Preparation circulated beginning November 3, 2023. No new significant impacts and no substantial increase in the severity of previously identified impacts of the GPU PEIR associated with the proposed project would occur. Likewise, there would be no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis, verification, or mitigation measures. Therefore, the project would not trigger the need for more detailed analyses related to the following environmental topics:

5.3.1 Aesthetics

California Public Resources Code Section 21099 states that "aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment." This Section defines a Transit Priority Area as "an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program or applicable regional transportation plan." As the proposed project is a mixed-use project located on an infill site within a Transit Priority Area as identified by the Southern California Association of Governments, aesthetics-related impacts would not be considered significant. Therefore, the proposed project is exempt from aesthetic impacts pursuant to CEQA, and the discussion of aesthetics-related impacts below is provided for information purposes only.

a) Except as provided in Public Resources Code Section 21099, would the project have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. Scenic views or vistas are generally defined as panoramic public views to various natural features, including large water bodies, striking or unusual natural terrain, or unique urban or historic features. Public access to these views may be from park lands, privately and publicly owned sites, and public rights-of-way.

The GPU PEIR states that the City of Santa Ana is highly urbanized, and therefore, views of the City are characterized by an urban landscape. Visual relief of the urban landscape is provided by the Santa Ana River along the western side of the City and Santiago Creek along the northern

end of the City. The existing open space land use designations along these corridors would remain under the GPU PEIR. Because the City is highly urbanized, buildout in accordance with the GPU PEIR would consist mainly of infill and redevelopment efforts. Although new development would alter the visual appearance of the existing conditions, it would not create a substantial adverse impact on scenic vistas nor degrade the City's visual character or quality, as the existing open space parcels would remain unchanged. Therefore, the GPU PEIR concluded impacts would be less than significant.

The proposed project would include a mix of commercial and residential development that would be at a greater intensity and density in both height and area, as compared to existing conditions. However, the proposed project is not located within or near a scenic vista, as defined by the City's GP Conservation Element. The Santa Ana River is located approximately 2.5 miles to the west of the project site; Santiago Creek is located approximately 4.6 miles north of the project site. The proposed project activities would be limited to the boundaries of the project site. Therefore, the project would not have a substantial adverse effect on a scenic vista. Impacts would be less than significant.

b) Except as provided in Public Resources Code Section 21099, would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The GPU PEIR states that no state scenic highways, eligible or officially designated, traverse the City nor are located near the City. Though buildout consistent with the GPU would lead to infill development and intensify the urban landscape, it would not damage scenic resources, including rock outcroppings, trees, and historic buildings within state scenic highways. Therefore, the GPU PEIR concluded no impact would occur. There are no eligible or state-designated scenic highways in the vicinity of the project site. Therefore, the proposed project would not impact scenic resources within a state scenic highway, and there would be no impact.

c) Except as provided in Public Resources Code Section 21099, would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact. The GPU PEIR concluded that buildout under the GPU would be in conformance with State regulations, such as Title 24 (Building Code), and local regulations, such as the City's Municipal Code and the seven existing specific plan/special zoning areas that guide design and aesthetic quality. Further, development of projects consistent with the GPU would be required to comply with the design and development specifications outlined in the updated land use and urban design elements. The City is in the process of updating the zoning code since it is legally required to bring the zoning code into compliance with the GPU. The City will update the zoning districts in terms of permitted land uses, development intensity, and building height. Consistency with existing state and local regulations and the GPU policies would ensure that future development in Santa Ana would not degrade the views and visual character of the City and would not conflict with zoning and other regulations that govern scenic quality. Therefore, the GPU PEIR concluded impacts would be less than significant.

The project site has a General Plan land use designation of DC-5, which is intended to provide urban retail, residential, mixed-use, and employment centers with an intensity of up to 5.0 floor area ratio and/or 125 dwelling units per acre, and a maximum height of 25 stories. The project

would be consistent with this land use designation and development standards, as it would include mixed-use commercial and residential buildings ranging up to 25 stories with an intensity of up to 5.0 floor area ratio and 125 dwelling units per acre. As discussed above, the City is in the process of updating the zoning code. The project site is currently zoned as SD-48; however, the project's specific plan would replace SD-48 as the zoning for The Village and would contain the development standards, permitted uses, and administrative processes for future development at the project site.

The architectural styles for the project would consider the Southern California environment and indoor/outdoor lifestyle, as well as the design aesthetic of the adjacent South Coast Metro area. The internal design and layout of buildings would prioritize convenience, flexibility in use, and separation of private and public areas. The architectural materials would feel natural and warm, with complementary, yet distinct buildings that represent a contemporary architectural style. As the project would be designed with a cohesive style that is compatible with its surrounding development, the project would support the existing visual character of the project area. Therefore, the project would not conflict with applicable zoning and other regulations governing scenic quality. Impacts would be less than significant.

d) Except as provided in Public Resources Code Section 21099, would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. The GPU PEIR states that new development and increased density in the five focus areas will generate additional sources of light and glare in the focus areas and in the areas surrounding them, both from increased development and vehicles within and around the focus areas. However, all future development accommodated by the GPU would be required to comply with the Title 24 Standards as amended by the Santa Ana Municipal Code Chapter 8, Article II. The GPU PEIR concluded that by complying with the building codes pertaining to light and glare sources from new developments, nighttime lighting and glare impacts and potential spillover caused by the full buildout of the GPU would be minimized and impacts would be less than significant.

The project site is developed with existing commercial retail uses, which provide ambient lighting and glare, such as interior and exterior building lighting, parking lot lighting, and glare from vehicles and windows. The proposed project would intensify development at the project site both horizontally and vertically, with a mix of residential, commercial, office, parking, and open space uses. Thus, the project would result in additional sources of light, such as building lighting, landscape lighting, lighting along pedestrian pathways, security lighting, and parking lot lighting. In addition, the project would result in additional sources of glare due to light reflecting off parked or traveling cars and building windows. However, as the project site is already developed and surrounded by existing commercial and residential land uses, the project would utilize lighting that is typical of the existing and surrounding developments. In addition, similar to development under the GPU, the proposed project would be required to comply with the Title 24 Standards as amended by the Santa Ana Municipal Code Chapter 8, Article II. The project would also be required to comply with the City's Lighting Standards (Section 5 of the City's Engineering Standards and Plans), which are currently under revision. In addition, the proposed specific plan specifies implementation of the following exterior and landscape lighting design requirements, which would reduce potential light and glare:

- Lighting fixtures shall be integrated into the landscape to facilitate safe pedestrian circulation.

- Full-cutoff fixtures shall be used in landscape lighting. Excessive lighting shall be avoided as “dark sky” lighting is encouraged to minimize light pollution.
- Outdoor lighting shall be shielded to prevent glare on adjacent properties.
- Storefront, restaurant, and primary building entries shall be illuminated.
- Lighting adequate for pedestrian and vehicle safety and sufficient to minimize police problems shall be provided. The level of illumination for pedestrian and vehicular safety shall be an administrative approval made by the Public Works Department.
- For parking garages and structures, a minimum of 5 foot-candles of illumination shall be provided inside the parking structures, and a minimum of 3 foot-candles for exterior parking areas. Interiors should be painted a light color to transmit light throughout the space.
- Lighting in accordance with Chapter 8 of the SAMC shall be provided to illuminate the Village during nighttime hours.

Therefore, because the proposed project would comply with applicable regulations and implement lighting design criteria, the proposed project would not adversely affect day or nighttime views in the area and impacts would be less than significant.

5.3.2 Agriculture and Forestry Resources

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?

No Impact. The GPU PEIR found that according to the California Resource Agency’s Department of Conservation, the City does not have any significant agricultural resources. The City is also almost completely built out and the GPU would allow for development in highly urbanized areas. Therefore, no impacts to farmland would occur under the GPU, and no further analysis was required in the GPU PEIR.

According to the California Department of Conservation’s California Important Farmland Finder mapping tool, the project site and surrounding uses are designated as “Urban and Built-Up Land.” Therefore, no farmland exists on the project site and the proposed project would not convert farmland to non-agricultural use. No impact would occur.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The City of Santa Ana has no land designated or zoned for agricultural use and does not have any land subject to a Williamson Act contract. Thus, the GPU PEIR found that no impacts to agricultural zoning or a Williamson Act contract would occur, and no further analysis was required in the GPU PEIR.

The project site is zoned for Specific Development (SD-48), which does not allow for agricultural use. Additionally, according to the California Department of Conservation’s California Williamson Act Enrollment Finder mapping tool, Orange County does not have any land subject to a Williamson Act Contract. Therefore, the proposed project would not conflict with existing zoning for agricultural use or with a Williamson Act contract. No impact would occur.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The City does not have any land designated or zoned for forestland, timberland, or timberland zoned Timberland Production. Thus, the GPU would have no impacts on forest land in the City and no further analysis was required in the GPU PEIR.

As discussed, the project site is zoned for Specific Development (SD-48), which does not allow for forestland or timberland uses. Therefore, the proposed project would not conflict with existing zoning for forestland or timberland uses. No impact would occur.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The GPU PEIR states that the City does not have any land designated or zoned for forestland. Thus, the GPU would have no impacts on forest land in the City and no further analysis was required in the GPU PEIR.

The project site is currently developed with existing commercial retail and surface parking lot uses and does not contain any forest land. Therefore, the proposed project would not result in the loss of forest land or convert forest land to non-forest use. No impact would occur.

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The City does not have any significant agricultural resources or land designated or zoned for forestland, timberland, or timberland zoned Timberland Production. Therefore, the GPU would have no impacts related to the conversion of farmland or forest land and no further analysis was required in the GPU PEIR.

As discussed, the project site and vicinity are designated as “Urban and Built-Up Land,” and no farmland exists on the project site or surrounding uses. The proposed project would not convert farmland or forest land to non-agricultural or non-forest use. No impact would occur.

5.3.3 Biological Resources

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 Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant Impact. Sensitive plants include those listed as threatened or endangered, proposed for listing, or candidate for listing by the U.S. Fish and Wildlife Service (USFWS) and/or California Department of Fish and Wildlife (CDFW) or those listed by the California Native Plant Society. Sensitive wildlife species are those species listed as threatened or endangered, proposed for listing, or candidate for listing by USFWS and/or CDFW, or considered special status by CDFW. Sensitive habitats are those that are regulated by USFWS, U.S. Army Corps of Engineers, and/or those considered sensitive by CDFW.

According to the GPU PEIR, the inventory of existing conditions determined that no parcels with a proposed land use designation that allows for development under the GPU (i.e., not an open

space designation) currently has sensitive vegetation. All parcels currently have ruderal vegetation and little to no biological value. Specifically, the South Bristol Street Focus Area consists of 10 parcels designated with a land use of Open Space, and no vacant parcels. The parcels total 6.94 acres and include the railroad right-of-way, concrete channels, parking lot, underground channel/turf, and linear parks with ornamental vegetation. The GPU does not propose revisions to the existing land use designations of these Open Space parcels; therefore, no impacts would occur in the South Bristol Street Focus Area.

The GPU PEIR states there is no current indication that future development in accordance with the GPU would have significant unavoidable biological impacts. Development associated with the GPU PEIR would be required to comply with the Federal Endangered Species Act and California Fish and Game Code Sections 3503 and 1600. GPU PEIR Mitigation Measure (MM) BIO-1 would require a qualified biologist to conduct initial screenings for projects that would disturb vegetated land or major streams and are subject to CEQA. The GPU PEIR concluded with compliance with all applicable federal, state, and local regulations and incorporation of GPU PEIR MM BIO-1, impacts would be less than significant.

The project site is fully developed with existing commercial uses and surface parking, and the surrounding area is heavily urbanized with residential and commercial uses. The proposed project would involve infill development within an already highly disturbed urban environment. The project site includes limited, ornamental landscaping, including grass lawns and trees. Upon initial screening, due to the urbanized nature of the project site and surrounding area, there are no natural, vegetated areas that could support candidate, sensitive, or special status species, or habitat for such species. Thus, the project site would not warrant further investigation for biological resources. However, the existing trees on-site may provide habitat to nesting birds, which are protected pursuant to the federal Migratory Bird Treaty Act of 1918 (MBTA) and the California Fish and Game Code. The proposed project would comply with all applicable federal, state, and local regulations including the MBTA and the California Fish and Game Code Section 3503, which protect nesting birds and their eggs/young. As described in Section 3.5.1 Project Construction, of Chapter 3, Project Description, to maintain compliance with the MBTA and California Fish and Game Code, clearance surveys would be conducted prior to any ground disturbance or vegetation removal activities to avoid direct or indirect impacts to active bird nests and/or nesting birds if construction occurs during the nesting bird season. Therefore, the proposed project would not result in direct impacts to special-status species identified as a candidate, sensitive, or special-status species and impacts would be less than significant.

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 Wildlife or U.S. Fish and Wildlife Service?

No Impact. According to the GPU PEIR, parcels identified as riparian vegetation and oak woodland are associated with the Santiago Creek located in the northern portion of the City. These parcels are not in a focus area and there are no proposed land use changes to these parcels as part of the GPU. None of the focus areas contain riparian or oak woodland. Therefore, the GPU PEIR concluded implementation of the GPU would have a less than significant impact on riparian or other sensitive natural communities.

As discussed, the project site is fully developed with commercial retail uses and contains limited, ornamental landscaping. The ground cover consists primarily of paved, developed areas and limited areas of vegetation, including trees and grass. There is no riparian habitat or other sensitive natural communities within the project site. Santiago Creek, which contains riparian vegetation and oak woodland communities, would not be impacted by the proposed project, as it

is located approximately 4.6 miles north of the project site. Therefore, implementation of the proposed project would not impact any riparian habitat or other sensitive natural community. Impacts would be less than significant.

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

No Impact. The GPU PEIR states that wetlands are identified along the Santa Ana River and Santiago Creek, along with channels and ponds throughout the City. Channels throughout the City are classified as ornamental, disturbed, and developed. Development of projects pursuant to the GPU would not impact wetlands and jurisdictional waterways since the GPU would not change the land use designations of the Santa Ana River, Santiago Creek, and channels. Therefore, the GPU PEIR concluded impacts would be less than significant.

Based on a review of the U.S. Fish and Wildlife Service National Wetlands Inventory, there are no wetlands within the project site. Furthermore, no potential jurisdictional drainages or wetland features were observed within project site. The National Wetlands Inventory identifies several wetland features in the project vicinity, including a freshwater pond within the multi-family housing community to the north, a freshwater pond within a condominium community to the west, and a riverine habitat (the Santa Ana channel) between the commercial uses and condominium community to the east. However, these wetland habitats are engineered, man-made, and situated within fully developed areas. In addition, as project activities would be limited to the boundaries of the project site, the proposed project would not impact these nearby wetland features. Therefore, the proposed project would not have a substantial adverse effect on state or federally protected wetlands, and no impact would occur.

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?

Less Than Significant Impact. The GPU PEIR states that the City of Santa Ana is largely urbanized, and migration corridors are generally limited to the Santa Ana River and the Santiago Creek. Development under the GPU would result in further infill of the City and removal of vacant sites. The GPU would not change land use designations of parcels that encompass the Santa Ana River or the Santiago Creek. However, buildout of the GPU could affect wildlife movement, nesting sites, and migratory birds protected under the MBTA and the California Fish and Game Code. The GPU PEIR would implement GPU PEIR MM BIO-1 and comply with the Federal Endangered Species Act and California Fish and Game Code Sections 3503 and 1600, which includes the protection of nesting birds and eggs. The GPU PEIR concluded that, with compliance with all applicable federal, state, and local regulations and incorporation of GPU PEIR MM BIO-1, impacts would be less than significant.

The project site is located approximately 2.4 miles east of the Santa Ana River, and 5.2 miles south of Santiago Creek. As such, the proposed project would not result in impacts to either of these corridors. In addition, the project site is not located within any wildlife corridors, as it is fully developed and surrounded by urban land uses that provide minimal to no opportunities for movement of wildlife. The existing commercial uses, residential uses, and roadways result in elevated noise levels, vehicle traffic, and human presence, which decrease the suitability of the project site and vicinity to be used as a wildlife movement corridor or linkage. However, the proposed project would remove ornamental trees at the project site, which may provide suitable nesting habitat for birds protected under the MBTA. As discussed, nesting birds are protected

pursuant to the federal MBTA and the California Fish and Game Code. As described in Section 3.5.1 Project Construction, of Chapter 3, Project Description, to maintain compliance with the MBTA and California Fish and Game Code Section 3503, clearance surveys would be conducted prior to any ground disturbance or vegetation removal activities to avoid direct or indirect impacts to active bird nests and/or nesting birds if construction occurs during the nesting bird season. A number of existing trees would be removed at the project site and replaced as part of the proposed planting zones. Additionally, noise and dust generated during construction could indirectly impact nesting birds by causing them to avoid the area during construction. With compliance to the requirements of the MBTA, any direct or indirect impacts on nesting birds would be reduced to a less than significant level.

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

Less Than Significant Impact. The GPU PEIR states that buildout under the GPU would be required to comply with all applicable federal and state laws and regulations governing the protection and preservation of wildlife, plants, and habitat. Further development within the City would be required to comply with the City's Municipal Code, including Article VII, Regulation for the Planting, Maintenance, and Removal of Trees. Therefore, the full buildout pursuant to the GPU would not conflict with the provisions of a local tree preservation ordinance or policy. The GPU PEIR concluded impacts would be less than significant.

The City's Municipal Code does not contain codes specific to tree preservation on private property specific to species, stature, or site. The Municipal Code contains the following codes that pertain to trees within parkways and rights-of-way: Section 33-191 Damaging City Trees, Section 33-185 Street Tree Species to be Planted, and Section 33-188 Site Plan Approval. Although the proposed project would remove a number of existing trees within the rights-of-way, the project would adhere to these sections of the Municipal Code, including Article VII, and therefore, would not conflict with applicable tree policies. Therefore, the proposed project would not conflict with any local policies or ordinances protecting biological resources, and impacts would be less than significant.

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?

No Impact. According to the GPU PEIR, the City of Santa Ana is not within a Natural Community Conservation and Habitat Conservation Plan (NCCP/HCP) area, and therefore, would not conflict with an adopted NCCP/HCP plan. Therefore, the full buildout pursuant to the GPU would not conflict with the provisions of an adopted NCCP/HCP or an approved local, regional, or state habitat conservation plan. The GPU PEIR concluded impacts would be less than significant.

As the City of Santa Ana is not located within an NCCP/HCP area, the proposed project would not conflict with applicable HCPs or NCCPs. No impact would occur.

5.3.4 Mineral Resources

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. According to the GPU PEIR, a small portion of the northeast corner of the city is located within Mineral Resource Zone 2, which means significant mineral resources are known or very likely. However, the GPU area does not have mineral resource sectors or active or inactive mines. Therefore, the GPU PEIR determined that implementation of the GPU would not result in

the loss of availability of a known mineral resource that would be of value to the region and the residents of the state, and impacts would be less than significant.

The project site is entirely located in an area designated as MRZ-3, indicating that the significance of mineral deposits cannot be determined from the available data. The project site is currently developed with existing commercial retail and surface parking lot uses. No mineral extraction occurs within or near the project site, and no mineral extraction would occur with implementation of the proposed project. Thus, the proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. No impact would occur.

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?

No Impact. The GPU PEIR does not identify any locally-important mineral resource recovery sites in the City of Santa Ana. Additionally, the GPU PEIR states that the GPU area does not have mineral resource sectors or active or inactive mines. Therefore, the GPU PEIR determined that implementation of the GPU would not result in the loss of availability of a locally-important mineral resource recovery site, and impacts would be less than significant.

The project site is not delineated as a locally important mineral resource recovery site in the GPU or other land use plan. The proposed project would be located within a fully developed urban site with no mineral resource sectors or active or inactive mines. Therefore, implementation of the proposed project would not result in the loss of availability of a locally-important mineral resource recovery site. No impact would occur.

5.3.5 Wildfire

a) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. The GPU PEIR identifies the nearest very high fire hazard severity zone (VHFHSZ) in a state responsibility area to the City is about four miles east along the western edge of Loma Ridge. The nearest VHFHSZ in a local responsibility area is about 3.8 miles east at the southern tip of the Peters Canyon Regional Park. Therefore, the City is not in or near state responsibility areas or lands classified as VHFHSZs, and the GPU PEIR concluded that no impact would occur.

The project site is located within the City, which is not located in or near a state responsibility area or lands classified as a VHFHSZ. Therefore, similar to the determination in the GPU PEIR, no impact would occur.

b) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. The project site is located within the City, which is not located in or near a state responsibility area or lands classified as a VHFHSZ. Therefore, similar to the determination in the GPU PEIR, no impact would occur.

c) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. The project site is located within the City, which is not located in or near a state responsibility area or lands classified as a VHFHSZ. Therefore, similar to the determination in the GPU PEIR, no impact would occur.

d) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, 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?

No Impact. The project site is located within the City, which is not located in or near a state responsibility area or lands classified as a VHFHSZ. Therefore, similar to the determination in the GPU PEIR, no impact would occur.

5.4 GROWTH INDUCING IMPACTS

This section analyzes the growth inducement potential of the proposed project and the associated secondary effects of growth the proposed project might permit. As required by State CEQA Guidelines Section 15126.2(e), an EIR must:

> Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a recycled water plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

Thus, based on the State CEQA Guidelines, a project could have a direct effect on population growth, for example, if it would involve construction of substantial new housing. A project could also have indirect growth-inducement potential if it would:

- Establish substantial new permanent employment opportunities (e.g., commercial, industrial, governmental, or other employment-generating enterprises) or otherwise stimulate economic activity such that it would result in the need for additional housing, businesses, and services to support increased economic activities;
- Remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or would add substantial capacity that could accommodate additional unplanned growth;
- Remove obstacles to growth through changes in existing regulations pertaining to land development;
- Result in the need to expand one or more public service facilities to maintain desired levels of service; or

- Involve some other action that could encourage and facilitate other activities that could significantly affect the environment.

State CEQA Guidelines Section 15126.2(e) states that growth-inducing effects are not to be construed as necessarily beneficial, detrimental or of little significance to the environment. Therefore, the following analysis is provided as additional information on ways in which the proposed project could contribute to significant changes in the environment beyond the direct consequences of developing the land use concepts examined in the preceding sections of this Supplemental EIR.

Establish substantial new permanent employment opportunities or otherwise stimulate economic activity such that it would result in the need for additional housing, businesses, and services to support increased economic activities.

The project implements land uses and activities that were envisioned and designated in the City's GPU, which has the purpose to guide growth and development in the City through 2045 and beyond. The project site is currently developed with the South Coast Plaza Village commercial center, which consists of approximately 164,049 square feet of retail shops and restaurants, offices, and the Regency Theatres cinema building, and provides an estimated 328 jobs.

The proposed project would redevelop the site to provide up to 1,583 residential units (encompassing approximately 1,850,000 square feet of building space), 80,000 square feet of retail space, 300,000 square feet of office space, and approximately 7.5 acres of publicly accessible open space and common areas. Section 4.10, Population and Housing, of this Supplemental EIR discusses the proposed project's impact on employment at buildout. As analyzed therein, based on employment factors provided in the GPU PEIR, the proposed retail and office space would generate approximately 985 jobs, resulting in a generated net increase of 657 jobs compared to existing conditions. The generated net increase resulting from the proposed project would not exceed the projected increase for nonresidential uses and employment in the South Bristol Street Focus Area and therefore, would not result in unplanned employment growth.

In addition, the proposed project would slightly reduce (improve) the City's jobs to housing ratio and would benefit the City by introducing multi-family housing to the project site in a jobs-rich area in which employees would be able to easily commute to nearby employment opportunities. Because the area is jobs-rich, the addition of residential units in the area would not require additional job growth. Therefore, the residential units would not indirectly result in the need for additional employment opportunities, which could result in unplanned growth.

Furthermore, jobs associated with the project's retail and office uses would be filled to some extent by employees already residing in the vicinity of the project. Residents and employees in the project vicinity would have convenient access to sustainable multimodal transportation that would allow for walking, biking, and the use of existing transit, which could reduce vehicular trips and thus, reduce travel impacts related to traffic, air quality, and greenhouse gas emissions. In addition, as the proposed project would provide housing, it would not result in the need for additional housing. Implementation of the proposed project would stimulate economic activity as envisioned in the GPU in a manner that balances the City's needs for housing, commerce, and recreation, without inducing unplanned growth.

Remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area or would add substantial capacity that could accommodate additional unplanned growth.

The elimination of a physical obstacle to growth is considered to be a growth inducing attribute.

An obstacle to growth typically involves the lack of public service infrastructure. A project may induce growth if it would provide public services or infrastructure with excess capacity to serve lands that would otherwise not be developable or to expand the development potential of redevelopment areas. As stated in the GPU PEIR, implementation of the GPU would allow for infill development within the focus areas and alteration, of existing land uses. This would indirectly induce construction of infrastructure extensions and improvements, such as roadways, storm drains, water pipes, solid waste collection systems, and energy/communication extensions.

The proposed project is an infill redevelopment of an existing commercial property in the South Bristol Street Focus Area. Refer to Sections 4.7, Hydrology and Water Quality, and 4.12, Utilities and Service Systems, for a detailed discussion of the proposed utility infrastructure improvements. A summary of the proposed improvements is provided below.

Water Infrastructure. Proposed improvements would include new private water mains and private fire hydrants along the north connector road between Plaza Drive and Bear Street, and 300 feet of the central connector road. A segment of the private fire water main would be extended from and along the Central Connector Road towards Village Drive to provide extended fire hydrant coverage for the project site. All existing laterals servicing the project site would be removed and abandoned up to the existing water main per City of Santa Ana standards. New domestic, irrigation, and fire water service connections for each proposed structure would be made directly to the existing and proposed public water mains located throughout the project area per City of Santa Ana standard plans.

Wastewater Infrastructure. The project would develop an on-site private sewer network that would convey all sewer flows generated west of Plaza Drive to discharge to the existing Orange County Sanitation District trunk sewer main located in Sunflower Avenue. Sewer flows generated east of Plaza Drive would be connected to the existing Orange County Sanitation District sewer main in Plaza Drive as well as the existing City-owned sewer main in Sunflower Avenue to utilize allow for connections to the existing 8-inch sewer main on Sunflower Ave available existing capacities in the system.

Storm Drainage. The proposed grading and storm drain network would be designed to match existing drainage and flow patterns to best utilize the capacities available in the existing public storm drain system.

Overall, the proposed project would redevelop the existing on-site infrastructure systems for water, water quality, wastewater, and stormwater utility improvements to meet project-related demand. The new infrastructure would not provide additional capacity beyond what is needed to serve the proposed project. In addition, because the proposed project is within a developed area that is receiving services from existing utility infrastructure and would connect to the existing infrastructure, development of the proposed project would not result in an expansion of overall capacity, extension of infrastructure, or provision of services in areas or an unserved area. Therefore, implementation of the proposed project would not remove obstacles to growth or add substantial capacity that could accommodate additional unplanned growth.

Remove obstacles to growth through changes in existing regulations pertaining to land development.

A project could directly induce growth if it would remove barriers to population growth such as changes to a jurisdiction's general plan and zoning code, which allows new development to occur in underutilized areas. As mentioned in the GPU PEIR, the GPU is an amendment to the City's General Plan land use element. Buildout of the GPU compared to the current General Plan would result in an additional 13,195 dwelling units and a reduction of 2,665,857 square feet of

nonresidential uses. The City's GPU Land Use Element designates the project site as District Center-High (DC-5), which provides for distinctly urban retail, residential mixed-use, and employment centers with an intensity of up to 5.0 floor area ratio and/or 125 dwelling units per acre and a maximum height of 25 stories.

Adoption of the Village Santa Ana Specific Plan, which contains the proposed development standards, permitted uses, and administrative processes for future development, pursues the envisioned buildout of the property as part of the City's GPU Land Use Plan, as analyzed in Section 4.10, Population and Housing. The proposed project would be consistent with the land use designations proposed in the GPU PEIR, which allow for urban retail, residential, mixed-use, and employment centers with an intensity of up to 5.0 FAR and/or 125 dwelling units per acre. Additionally, the project's estimated 3,659 residents would be 3.8 percent of the GPU PEIR's estimated 96,855 persons resulting from Citywide growth, and the proposed 1,583 housing units would be 4.4 percent of the GPU PEIR's estimated 36,261 housing units planned to be added Citywide. Therefore, the population and housing growth from the proposed project would not exceed the growth identified in the GPU PEIR. The project would generate a net increase of 657 jobs which would not exceed the increase in 3,505,130 square feet of nonresidential space and 7,855 jobs projected for the South Bristol Street Focus Area. Further, the proposed project would have a 0.42 jobs to housing ratio (i.e., 657 jobs to 1,583 housing units). The City of Santa Ana is jobs-rich with an existing jobs-housing ratio of 2.0. The proposed project would slightly reduce (improve) the jobs to housing ratio and would benefit the City by introducing multi-family housing to the project site in a jobs-rich area in which employees would be able to easily commute to nearby employment opportunities. In addition, as the area is jobs-rich, the addition of residential units in the area would not require additional job growth. Thus, the resulting population, housing, and employment growth from the proposed project would not exceed the growth identified in the GPU PEIR, and no new substantial unplanned population growth would occur that was not previously analyzed in the GPU PEIR. Further, Therefore, the proposed project would not remove obstacles to growth through changes in existing regulations pertaining to land development.

Result in the Need to Expand One or More Public Service Facilities to Maintain Desired Levels of Service

As discussed in Section 4.11, Public Services, and 4.12, Recreation, implementation of the proposed project would result in increased demand for fire protection, police protection, school services, and recreational facilities. The provision of new or physically altered government facilities is typically associated with unplanned population growth or new residential development. Buildout of the proposed project would not increase demand beyond that assumed for buildout of the South Bristol Street Focus Area in the GPU PEIR, and thus, would not be considered unplanned population growth. Further, the proposed project would adhere to regulations and requirements such as undergoing site plan review by the Orange County Fire Authority and Santa Ana Police Department and payment of facility fees and developer/impact fees. Therefore, the proposed project would not result in the need to expand one or more public service facilities to maintain desired levels of service.

Involve Some Other Action that Could Encourage and Facilitate Other Activities that Could Significantly Affect the Environment

The proposed project involves a zoning amendment to replace the existing SD-48 zoning of the project site; however, the proposed amendment is specific to the allowable land uses at the project site. The proposed project would not propose changes to any of the City's building safety standards (i.e., building, grading, plumbing, mechanical, electrical, or fire codes). The proposed project would comply with all applicable City plans, policies, and ordinances. In addition, project

features and mitigation measures have been identified throughout this Supplemental EIR to reduce potential environmental impacts to the amount feasible. Therefore, the proposed project would not involve some other action that could encourage and facilitate other activities that significantly affect the environment.

Environmental Impacts of Induced Growth

The physical environmental effects resulting from construction and operation of the proposed project have been analyzed throughout Chapter 4 of this Supplemental EIR. For example, impacts related to ground-disturbing activities such as excavation and grading were analyzed in Sections 4.4, Geology and Soils, and 4.7 Hydrology and Water Quality; impacts related to project emissions were analyzed in Sections 4.1, Air Quality and 4.5, Greenhouse Gas Emissions; and other impacts such as noise and traffic resulting from the project were analyzed in 4.9, Noise, and 4.13, Transportation. Therefore, construction and operation of the proposed project has been analyzed in this EIR and would be adequately mitigated either through implementation of existing regulations and/or mitigation measures contained within Chapter 4 of this Supplemental EIR.

CHAPTER 6
ALTERNATIVES

6.1 INTRODUCTION

This section analyzes the alternatives to the Village Santa Ana Project that have been considered in this Draft Supplemental EIR to explore potential means to mitigate or avoid the significant environmental impacts associated with implementation of the proposed project, which involves buildout of part of the South Bristol Street Focus Area, as identified in the City's GPU Land Use Plan, while still achieving the primary objectives of the project.

6.2 PURPOSE AND SCOPE

Pursuant to State CEQA Guidelines Section 15126.6(a), an EIR shall 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 of the significant effects of the project and evaluate the comparative merits of the alternatives. The State CEQA Guidelines also state that an EIR need not consider every conceivable alternative or consider alternatives that are infeasible. Under CEQA, factors that can determine feasibility are site suitability, economic limitations, availability of infrastructure, consistency with applicable plans, regulatory limitations, and jurisdictional boundaries.

Pursuant to State CEQA Guidelines Section 15126.6(d), the discussion of each alternative presented in this section of the Draft Supplemental EIR is intended "to allow meaningful evaluation, analysis, and comparison with the proposed project." As permitted by CEQA, the significant effects of each alternative are discussed in less detail than those of the proposed project, but in enough detail to provide perspective and allow for a reasoned choice among alternatives to the proposed project. Therefore, an EIR should present a reasonable range of feasible alternatives that will support informed decision-making and public participation regarding the potential environmental consequences of a project and possible means to address those consequences. An EIR need not consider alternatives whose effects cannot be reasonably ascertained and whose implementation is remote or speculative.

The alternatives analysis must also include a comparative evaluation of the No Project Alternative in accordance with State CEQA Guidelines Section 15126.6(e) to determine the consequences of not implementing the project. Through the identification, evaluation, and comparison of alternatives, the relative advantages and disadvantages of each alternative compared with the proposed project can be determined.

Based on the CEQA requirements described above, the alternatives addressed in this Draft Supplemental EIR were selected in consideration of one or more of the following factors:

- The extent to which the alternative could avoid or substantially lessen any of the identified significant environmental effects of the proposed project;
- The extent to which the alternative could accomplish the objectives of the proposed project;
- The potential feasibility of the alternative;

- The appropriateness of the alternative in contributing to a "reasonable range" of alternatives that would allow an informed comparison of relative advantages and disadvantages of the proposed project and potential alternatives to it; and
- The requirement of State CEQA Guidelines Section 15126.6(e) to consider a "no project" alternative; and to identify an "environmentally superior" alternative in addition to the no project alternative.

Neither the CEQA statute and the State CEQA Guidelines, nor recent court cases specify a specific number of alternatives to be evaluated in an EIR. Rather, as stated in State CEQA Guidelines 15126(f), "the range of alternatives required in an EIR is governed by the rule of reason that sets forth only those alternatives necessary to permit a reasoned choice."

6.3 PROJECT OBJECTIVES

State CEQA Guidelines Section 15124(b) (Title 14, California Code of Regulations) requires that the description of the project shall contain a statement of objectives sought by the proposed project. The project objectives have been developed to incorporate the GPU objectives and vision, including the GPU South Bristol Street Focus Area objectives. The following are the proposed Village Santa Ana Project objectives:

- Implements the vision and objectives established in the City of Santa Ana General Plan for the South Bristol Street Focus Area as the City's southern gateway and part of the South Coast Metro area by creating opportunities to transform auto-oriented shopping plazas to walkable, bike-friendly, and transit-friendly urban villages that incorporate a mix of high-intensity office and residential living with experiential commercial uses. The following are based on the South Bristol Street Focus Area objectives:
  - Capitalizes on the success of the South Coast Metro area;
  - Introduces mixed-use urban villages and encourage experiential commercial uses that are more walkable, bike friendly, and transit oriented;
  - Provides for mixed-use opportunities while protecting adjacent, established low density neighborhoods.
- Fosters a neighborly environment where residents can live, work, and recreate in a vibrant village community.
- Anchors Santa Ana's South Bristol Street Focus Area as envisioned by the City, which is to transform conventional auto-oriented shopping plazas into dynamic nodes of activity that blend healthy living, working, shopping, and dining in a contemporary village environment.
- Captures Orange County's indoor-outdoor lifestyle through attention to detail in the design of buildings, selection of materials, infusion of nature in outdoor spaces, and the activities offered in the Village.
- Builds on the foundation of this dynamic area through new experiences in food, fitness, and artisan retail.
- Complements the successful South Coast Metro area with a diversity of new housing in a jobs-rich environment.
- Attracts the innovative and start-up culture of Orange County and provides thoughtfully designed spaces to create and showcase new offerings.

- Complements and does not compete with the emerging business environment of Downtown Santa Ana.
- Allows for the flexible redevelopment of the underutilized project site to provide a balanced mix of residential, retail, recreation, and office uses in the South Bristol Street Focus Area that integrate into the existing urban systems and provide a safe and attractive environment for living and working, as encouraged by the GPU.
- Develops high quality residential spaces that reflect modern lifestyles, while responding to the vision of the GPU to help bring higher density housing into a jobs-rich area of the City planned for growth, to facilitate balancing the City's jobs-housing ratio.
- Provides a positive contribution to the local economy through new capital investment, the creation of new jobs, development of more commercial opportunities, attraction of economic activity, and the expansion of the tax base.
- Enhances alternative transportation activity by creating a walkable and bikeable mixed-use development that links with existing facilities and transit services to encourage non-automotive travel within the Specific Plan area and the local community.
- Improves existing infrastructure to support the Village Santa Ana Specific Plan consistent with the General Plan conditions.
- Provides a project that contributes to the creation of a vibrant urban core for the City by providing vibrant and attractive community amenities, recreational and open space areas, and gathering spaces that are directly accessible to residents and the community, and takes advantage of the site's location within the South Coast Metro area.
- Provides on-site open space and community-serving recreational amenities recognizing that this area of the City is currently identified as park-deficient by the GPU.
- Provides community benefits commensurate with the Specific Plan development proposal including public open space onsite and locations for public community events, as well as streetscape improvements along the project site frontages of Sunflower Avenue and Bear Street.

6.4 SIGNIFICANT IMPACTS OF THE PROJECT

A primary consideration in defining project alternatives is their potential to reduce or eliminate significant impacts of the proposed project. CEQA requires the alternatives selected for comparison in an EIR to avoid or substantially lessen one or more significant effects of the project being evaluated. As analyzed in Sections 4.1 through 4.15 and summarized in Chapter 1, Executive Summary of this Draft Supplemental EIR, the proposed project would not result in any significant impacts beyond those identified in the GPU PEIR that would remain significant, unavoidable, and adverse, after mitigation measures are applied.

The GPU PEIR identified significant and unavoidable impacts related to air quality, cultural resources, greenhouse gas emissions, noise, population and housing, and recreation. However, for the reasons described in Sections 4.1 through 4.15, the proposed project would result in no new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR. Regardless the following project-level impacts on recreation are considered significant and unavoidable:

- **Recreation Threshold R-1:** Per the GPU PEIR, the population growth related to buildout of the GPU would equate to 1.2 acres of park and recreational facilities per 1,000

residents. This service ratio would not meet the GPU's parkland standard of 3 acres per 1,000 residents. The project's proposed 13.8 acres of outdoor and recreational space (comprised of 7.5 acres of publicly accessible open space and 6.3 acres of private outdoor and amenity spaces), combined with the payment of applicable fees and tax revenues serves to reduce potential impacts discussed in the GPU PEIR. Regardless, since the proposed project would not fully meet the GPU policy of providing 3 acres of parkland and recreation facilities per 1,000 residents (the proposed project would provide a ratio of 2 acres per 1,000 residents), it is reasonably foreseeable that the proposed project would result in the increased use of existing parks and recreational facilities in a manner that results in accelerated substantial physical deterioration of the facilities. As identified in the GPU PEIR, there would be no feasible mitigation measures that would be able to reduce this significant impact, or the project's contribution thereto, to a less than significant level. As such, impacts would be significant and unavoidable, which is consistent with the findings of the GPU EIR.

- **Recreation Threshold R-2:** Per the GPU PEIR, since in both the existing condition and upon GPU buildout the City's ratio of park/recreational facility acreage to population would be below the GPU's parkland standard of 3 acres per 1,000 residents, it is anticipated that the City would build new parks and/or expand existing parks. The GPU PEIR concluded that it is possible that development of such facilities could result in significant, unavoidable environmental impacts. The proposed project would not increase the severity of this GPU PEIR impact but would contribute to the impact. As identified in the GPU PEIR, there would be no feasible mitigation measures that would be able to reduce this significant impact, or the project's contribution thereto, to a less than significant level. As such, impacts would be significant and unavoidable, which is consistent with the findings of the GPU EIR.
- **Cumulative Impacts on Recreation:** Together with the contribution from the proposed project's maximum buildout of 3,815 persons and 7.5 acres of publicly accessible parks/recreation facilities and open space, the proposed project plus the related projects would result in a total of 14,273 persons and 21.4 acres of publicly accessible parks/recreation facilities and open space, for a ratio of 1.5 acres per 1,000 residents. While the proposed project and the related projects would improve the GPU buildout's parkland-per-resident ratio and would be required to provide park and recreational facilities and/or pay in-lieu fees as required by the municipal code, due to the lack of available land to develop new parks or expand existing facilities, the ratio would still remain below the GPU's parkland standard. For this reason, the proposed project's incremental contribution relating to the deficiency of parkland within the City would be cumulatively considerable.

The proposed project would also result in several potentially significant environmental impacts that would be reduced to a less than significant level with the implementation of identified mitigation measures for the following:

- **Air Quality:** Operational impacts from volatile organic compounds (VOCs) associated with area sources, including hearths, consumer products, architectural coatings, and landscape equipment. To reduce VOC emissions, the proposed project would implement project-specific Mitigation Measure (MM) AQ-1 which requires that all landscaping equipment used on site shall utilize at least 50 percent electric landscaping equipment.

  Additionally, there is a potentially significant individual cancer risk and acute hazard risk during project construction at residential sensitive receptors. Implementation of GPU PEIR MM AQ-1 would require the use of construction equipment rated by the USEPA as having

Tier 4 emissions limits for engines between 50 and 750 horsepower to reduce the carcinogenic and acute hazard risks.

- **Cultural Resources:** Construction-related impacts to archaeological resources during ground disturbance. To reduce construction-related impacts, the proposed project would implement GPU PEIR MM CUL-6, which would require pre-construction training and construction monitoring for areas with previously undisturbed soil of high sensitivity at the project site.
- **Geology and Soils:** Construction-related impacts to seismic ground shaking, liquefaction, settlement, collapse, subsidence, and expansive soils. To reduce geologic hazards and soils, the proposed project would implement project-specific MMs G-1 and G-2 to prepare a final design-level geotechnical investigation and incorporate its recommendations.

  Construction-related impacts to paleontological resources during ground disturbance. To reduce construction-related impacts, the proposed project would implement GPU PEIR MM GEO-2, which in undisturbed depths would require paleontological monitoring, and GPU PEIR MM GEO-3, which would require procedural steps in the event of a fossil discovery. The project would also implement project-specific MM G-3 which requires paleontological monitoring during ground disturbance in native Pleistocene-age soil and bedrock greater than 4 feet in depth.
- **Noise:** Construction-related impacts to noise levels for potential overnight concrete pours. To reduce construction-related noise levels, the proposed project would implement project-specific MM NOI-1, which would require a nighttime construction noise control plan should overnight concrete pours be necessary.
- **Tribal Cultural Resources:** Construction-related impacts to tribal cultural resources during ground disturbance. To reduce construction-related impacts, the proposed project would implement project-specific MM TCR-1 through MM TCR-3, which in undisturbed soils would require Native American monitoring, and GPU PEIR MM CUL-6, as described above.

The EIR identifies less-than-significant impacts for energy, greenhouse gas (GHG) emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, population and housing, public services, transportation, and utilities and service systems.

As discussed in Chapter 5, Other CEQA Considerations, no impacts were identified for aesthetics, agricultural and forestry resources, biological resources, mineral resources, and wildfire.

6.5 ALTERNATIVES CONSIDERED BUT REJECTED

State CEQA Guidelines Section 15126.6(c) requires that an EIR identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination. Among factors that may be used to eliminate alternatives from detailed consideration in the EIR are: (1) failure to meet most of the basic project objectives, (2) infeasibility, and (3) inability to avoid significant environmental impacts.

6.5.1 Buildout of the Zoning Designation Alternative

The Buildout of the Zoning Designation Alternative would entail buildout of the project site

pursuant to the standards and regulations in the City's SD-48, amended in January 1989.[1] The SD-48 permitted uses include, but are not limited to, retail specialty, office, restaurants, specialty markets, beauty salons, banks, and theaters. Conditional uses permitted included live dance entertainment and alcoholic beverage sales. The SD-48 also includes development standards for parking for land use types, building setbacks (at a minimum of 15 feet), height (at a maximum of 35 feet), landscaping, signage, and building uses. The project site is currently occupied by the South Coast Plaza Village commercial center on both sides of South Plaza Drive which consists of approximately 164,049 square feet of retail shops and restaurants, offices, and the Regency Theatres cinema building. The majority of the buildings are at the maximum height of 35 feet. The property also provides surface parking, a variety of trees and a half-acre open space lawn area. Therefore, the existing development at the project site is reflective of the standards established under SD-48. It is not realistic that the site would be redeveloped with new or modified commercial uses consistent with the existing SD-48 zoning.

Additionally, the permitted uses under the SD-48 do not allow for residential, office, or open space uses. Therefore, this alternative would not achieve the basic project objectives of developing a residential mixed-use residential project and would not implement the GPU's vision for the South Bristol Street Focus Area.

As such, a buildout alternative under the existing zoning designation (SD-48) is not feasible and was rejected from further consideration.

6.5.2 Off-Site Alternative

According to State CEQA Guidelines Section 15126.6[f][2][A], only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR. The proposed Village Santa Ana Project would not cause any new significant impacts or substantial increase in previously identified significant impacts from those identified in the GPU PEIR.

As discussed in the project objectives, a fundamental purpose of building out the proposed project at the selected project site is to implement the vision and objectives established in the City of Santa Ana General Plan for the South Bristol Street Focus Area, primarily to transform auto-oriented shopping plazas into walkable, bike-friendly, and transit-friendly urban villages. Thus, the proposed project would redevelop an existing auto-oriented plaza that has already been disturbed by previous uses and is served by existing services, avoiding the need for new construction at an undeveloped site. Additionally, due to their age, the existing buildings at the South Coast Plaza Village have outdated infrastructure, which results in operational inefficiencies and outdated seismic code compliance.

The project site is located in a fully developed urban area of the City of Santa Ana and acquiring off-site property may not be financially reasonable or logistically feasible. Acquiring new property outside of the existing project site would also not eliminate the need to transform the existing auto-oriented shopping plazas in the South Bristol Street Focus Area into urban villages. Furthermore, there are limited, if any available properties comparable to the proposed project site of sufficient size, dimensions, and land use designation (District Center), and without existing residences that would otherwise require displacement within the GPU-identified South Bristol Street Focus Area and South Coast Metro Area that would allow for high-intensity mixed uses. For these reasons, this alternative has been eliminated from further consideration.

[1] City of Santa Ana, January 17, 1989, Specific Development No. 48, Amendment Application 1017 NS-1997.

6.6 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

Three alternatives to the proposed project have been identified for further analysis as representing a reasonable range of alternatives that attain most of the objectives of the project, may avoid or substantially lessen any of the significant effects of the proposed project, and are feasible from a development perspective. These alternatives have been developed based on the criteria identified in Section 6.2 and are described below.

6.6.1 Alternative 1: No Project/No Build

Pursuant to State CEQA Guidelines Section 15126.6(e)(2), an EIR is required to "discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time the environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services."

Further, State CEQA Guidelines Section 15126.6(e)(3)(B) states, "In certain instances, the no project alternative means 'no build' wherein the existing environmental setting is maintained." In addition, the No Project/No Build Alternative includes what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.

Therefore, under this alternative, no new development would occur on the project site, and the site would remain in its existing condition as the South Coast Plaza Village with seven existing buildings, totaling approximately 164,049 square feet of existing commercial retail uses, with surface parking and landscaping. In this alternative scenario, the seven buildings are assumed to be fully operational as a shopping plaza with multiple retail uses, a restaurant, and a movie theater. This alternative compares impacts of the proposed project with the existing buildings operating at full capacity for mixed retail uses. Accordingly, the No Project/No Build Alternative provides a comparison between the environmental impacts of the proposed project in contrast to the result from not approving, or denying, the proposed project.

6.6.2 Alternative 2: Reduced Project Alternative

The Reduced Project Alternative would reduce the commercial square footage, change the residential mix to reduce the number of residents, and remove the office uses from the mixed use development to minimize operational impacts to VOCs associated with area sources and construction-related impacts related to ground disturbance. Alternative 2 would reduce the total commercial square footage to 50,000 square feet from the 80,000 square feet provided by the proposed project and would not include office uses. The Reduced Project Alternative would provide a multi-family residential area with 1,433 standard residential units, totaling 1,671,000 square feet, and a senior (age restricted) living area of 150 units, totaling 179,000 square feet. The height of the proposed buildings under this alternative would be within a range in height from 1 to 25 stories, or 35 feet to 315 feet, consistent with the proposed project, but with a reduced total floor-to-area ratio (FAR) of 2.53.

To support the Reduced Project Alternative, the same ratio of parking spaces would be provided for the standard residential and commercial uses as the proposed project. However, the senior living units would use a ratio of 0.6 parking stalls per 1,000 people. Accordingly, the total number of parking stalls would be reduced to 2,296 stalls, compared to the approximately 3,500 stalls provided by the proposed project. Maximum excavation depths would reach 14 feet below ground surface (bgs) for one level of subterranean parking under this alternative, compared to the maximum depth of 52 feet bgs for the proposed project. Further, the total amount of bicycle stalls

would be reduced to 138 stalls, compared to the 196 stalls under the proposed project. Refer to Figure 6-1 for the Reduced Project Alternative site plan.

Under the Reduced Project Alternative, the same circulation improvements would be implemented as under the proposed project. Construction phasing would also remain the same. As with the proposed project, this alternative would require the adoption of an alternative Village Santa Ana Specific Plan to replace the SD-48 zoning designation.

6.6.3 Alternative 3: Reduced Project with No Subterranean Parking Alternative

The Reduced Project with No Subterranean Parking Alternative would reduce residential and commercial uses and remove office space to minimize operational impacts to VOCs associated with area sources and avoid the construction-related impacts related to ground disturbance required for subterranean parking (i.e., excavations below 14 bgs). Alternative 3 would reduce the number of residential units to 1,000 units, totaling 1,190,130 square feet, compared to the 1,583 units, totaling 1,850,000 square feet, provided by the proposed project. The Reduced Project with No Subterranean Parking Alternative would also reduce the total commercial area to 25,000 square feet, from the 80,000 square feet provided by the proposed project. This alternative would not include the proposed subterranean parking level, and, as such, no extensive excavation activities would occur. Alternative 3 would construct two surface parking lots and a three-level parking garage in addition to the podium parking levels within the residential buildings. The height of the proposed buildings under this alternative would be within a range in height from 1 to 25 stories, or 35 feet to 315 feet, consistent with the proposed project, but with a reduced total FAR of 1.62. Refer to Figure 6-2 for the Reduced Project with No Subterranean Parking Alternative site plan.

To support the Reduced Project with No Subterranean Parking Alternative, a three-level parking garage would be added to Block D (located in the northern central portion of the project site and centrally located to the proposal Plaza Village and Buildings C and E), and surface parking would be added to Blocks F and H (located in the eastern central portion and the center of the project site, respectively). The total amount of parking stalls would be reduced to 1,500 stalls, compared to the approximately 3,500 stalls provided by the proposed project. Further, the total amount of bicycle stalls would be reduced to 96 stalls, compared to the 196 stalls under the proposed project. Construction phasing would remove the Block F building during Phase 4 and eliminate Phase 5. Under the Reduced Project with No Subterranean Parking Alternative, publicly accessible parks/recreation facilities and open space would be reduced to 6.8 acres; however, the same circulation improvements would be implemented as under the proposed project. As with the proposed project, this alternative would require the adoption of an alternative Village Santa Ana Specific Plan to replace the SD-48 zoning designation.

6.7 ENVIRONMENTAL ANALYSIS OF ALTERNATIVES

6.7.1 Alternative 1: No Project/No Build Alternative

As discussed in Section 6.6.1 above, under this alternative, no new development would occur on the project site, and it would remain in its existing condition as the South Coast Plaza Village with seven existing buildings totaling approximately 164,049 square feet of existing commercial retail uses, with surface parking and landscaping. In this alternative scenario, the seven buildings are assumed to be fully operational as a shopping plaza with multiple retail uses, a restaurant, and a movie theater.

Environmental Impacts

Air Quality

The No Project/No Build Alternative would not involve construction activities. The demolition of the existing structures and pavement, excavation and grading of the site, construction of new buildings, and use of construction equipment would not occur. Therefore, the No Project/No Build Alternative would not generate any construction-related air pollutant emissions.

The No Project/No Build Alternative would continue operation of the existing buildings at full capacity, which would not exceed the South Coast Air Quality Management District's daily thresholds. Therefore, no new impacts beyond existing conditions related to operational emissions, sensitive receptors, and odors would occur from the No Project/No Build Alternative. The No Project/No Build Alternative would not be required to implement the project-specific MM AQ-1, as an increase in emissions over the existing conditions would not occur. Therefore, the No Project/No Build Alternative would result in no new impacts related to air quality, and impacts would be less when compared to the proposed project's less-than-significant impacts with mitigation.

Cultural Resources

The existing buildings would remain on site under the No Project/No Build Alternative. However, as determined in Section 4.2, Cultural Resources, of this Draft Supplemental EIR, the existing South Coast Plaza Village is not a historical resource as defined by State CEQA Guidelines Section 15064.5(a). Therefore, as with the proposed project, no impacts related to historic resources would occur from the No Project/No Build Alternative.

As discussed in Section 4.2, Cultural Resources, the sensitivity for archaeological resources at the project site is low at the surface but increases with depth. As the proposed project would require substantial excavation for the subterranean level, the project would implement GPU PEIR Mitigation Measure CUL-6 to reduce potentially significant impacts related to archaeological resources. The No Project/No Build Alternative would not involve ground disturbing activities that would potentially impact subsurface resources. Thus, the No Project/No Build Alternative would not have the potential to impact archaeological resources or human remains. As such, no impacts related to cultural resources would occur under this alternative, and impacts would be less when compared to the proposed project's less-than-significant impacts with mitigation.

Energy

The No Project/No Build Alternative assumes ongoing use of the existing buildings on the project site. Constructed in the 1970s, the South Coast Village buildings are not as energy efficient as newer buildings. Nevertheless, no new impacts beyond existing conditions related to the wasteful or inefficient use of energy or consistency with an applicable energy plan would occur from the No Project/No Build Alternative. Therefore, the No Project/No Build Alternative would result in no new impacts related to energy, and impacts would be less when compared to the proposed project's less-than-significant impacts.

Geology and Soils

Construction of new buildings would not occur under the No Project/No Build Alternative. Therefore, there would be no potential for new employees, residents, or structures to be at risk for seismic hazards at the project site. However, as the existing buildings and structures were built as early as the 1970s, retaining the existing buildings would not ensure compliance with current seismic safety codes.

The No Project/No Build Alternative would also not involve ground disturbing activities at the site. Therefore, no impacts to soils would occur, and this alternative would not require implementation of GPU PEIR MM GEO-2 and MM GEO-3 or project-specific MM G-1 through G-3 under the proposed project, as there would be no potential for additional impacts related to soil erosion or paleontological resources. Overall, impacts related to geology and soils under this alternative would be less than significant and would be less when compared to the proposed project's less-than-significant impacts with mitigation.

Greenhouse Gas Emissions

The No Project/No Build Alternative would not result in construction-related GHG emissions because no construction activities would occur at the project site. As such, this alternative would not implement the project-specific MM AQ-1 to further reduce GHG emissions, and there would be no impact related to construction emissions.

The No Project/No Build Alternative would not result in an increase of GHG emissions, as no new development would occur. Therefore, the No Project/No Build Alternative would result in no new impacts related to GHG emissions, and impacts would be less when compared to the proposed project.

However, operation of the site as commercial uses would not be consistent with the California Air Resources Board (CARB) 2022 Scoping Plan, Southern California Association of Governments (SCAG) 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal), 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal 2024), and the City's GPU and Climate Action Plan, as the existing uses would not allow for a mixed-use development that would implement the latest energy-efficient features and place new residents and employees within a Transit Priority Area (TPA) with greater open space options. As such, the No Project/No Build Alternative would not advance goals and policies set forth by the CARB 2022 Scoping Plan, SCAG Connect SoCal, Connect SoCal 2024, and the City's GPU and Climate Action Plan. Therefore, while impacts under this alternative would be less than significant, it would not be consistent with the applicable plans to the same extent as the project. GHG emissions under the No Project/No Build Alternative would be less than the project as this alternative would not generate additional GHG emissions, but the opportunity cost of not advancing GHG reduction goals would make the impact from this alternative related to consistency with GHG emission reduction plans greater than the less-than-significant impacts of the project. On balance, the GHG emission impacts of the No Project/No Build Alternative are considered similar to the project, as both would result in less-than-significant GHG emission impacts.

Hazards and Hazardous Materials

As discussed in Section 4.6, Hazards and Hazardous Materials, of this Draft Supplemental EIR, the Phase I Environmental Site Assessment conducted for the proposed project determined no recognized environmental conditions at the project site. However, due to the age of the existing buildings, demolition and excavation activities under the proposed project could reveal asbestos containing materials, lead-based paint, and polychlorinated biphenyls that would be removed and remediated in accordance with all applicable federal, state, and local regulations. Demolition or excavation activities would not occur under the No Project/No Build Alternative, and, as such, there would be no potential for hazardous materials to be released. However, no remediation of such hazardous materials would occur under the No Project/No Build Alternative, and these materials, if present, would remain on site. Overall, the No Project/No Build Alternative would result in a reduction in potential impacts to hazards and hazardous materials when compared with the proposed project, since without demolition activities the hazardous materials potentially

present in the existing buildings would not be disturbed and would not have a means of being released into the environment. Additionally, construction of buildings with a maximum height of 25 stories would not occur under the No Project/No Build Alternative and would not require compliance with Federal Aviation Regulations Part 77 to refer the project to the Orange County Airport Land Use Commission for review due to the site's proximity to John Wayne Airport (SNA). Therefore, on balance, impacts would be similar to the proposed project as the potential release of hazards would be less, but the opportunity cost of not remediating the site would make the impact from this alternative greater than the less-than-significant impacts of the project.

Hydrology and Water Quality

Existing water quality conditions, groundwater supplies, drainage patterns, and runoff water amounts would not change under the No Project/No Build Alternative because no new development would occur. As such, no new sources of water pollutants from either construction activities or operation of new uses on the site would occur. However, this alternative would not include installation of new Low Impact Development (LID) measures, source control, site design, treatment control best management practices (BMPs), and a proposed water quality system to manage and minimize runoff and water pollution, which would be implemented as a part of the proposed project.

In addition, the No Project/No Build Alternative would not initiate stormwater drain system improvements. Although these upgrades are not triggered by the proposed project, they would be made as a part of the proposed project. These improvements would not be made under the No Project/No Build Alternative, and it is at the City's discretion as to when these public storm drain system upgrades would be constructed in the future. Under the No Project/No Build Alternative, the beneficial improvements would not occur. Therefore, on balance, impacts would be similar when compared to the less-than-significant impacts of the proposed project since the alternative would result in fewer impacts to water quality from construction, but the benefits of stormwater pollution improvements would not occur with this alternative.

Land Use and Planning

The City's GPU Land Use Element designates the project site as District Center-High (DC-5) land use, which is a mixed-use designation providing transit-oriented and high-density urban villages consisting of visually striking and dynamic buildings and spaces with a wide range and mix of residential, live-work, commercial, hotel, and employment-generating uses. The project site is currently zoned as SD-48, which was adopted in 1989 and was last amended in 1997. The No Project/No Build Alternative would continue to operate the existing commercial buildings on the project site consisting of approximately 164,049 square feet of retail shops and restaurants, offices, and the Regency Theatres cinema building, and would not include the adoption of a Specific Plan or a zoning change. No impacts related to land use and planning would occur by the retention of the existing on-site uses. The No Project/No Build Alternative would not physically divide an established community, as no changes to the site would occur.

However, the No Project/No Build Alternative would not build out the GPU's DC-5 designation as a major development activity area and anchor to the City's commercial corridors and would not implement the GPU South Bristol Street Focus Area vision and objectives, or the SCAG policies promoting high-density, infill development. This alternative also would not assist in the improvement of the job/housing balance or reduction in vehicle miles traveled (VMT). Therefore, this alternative would not be consistent with the GPU and would not implement the City's land use plan to the same extent as the proposed project. Impacts under the No Project/No Build Alternative related to land use would be greater than the less-than-significant impacts of the proposed project.

Noise

The No Project/No Build Alternative would not generate construction related noise and vibration, as no construction activities would occur. Alternative 1 would also not result in an increase in ambient noise sources, as no changes to the project site would occur. The number of vehicular trips generated by this alternative would not increase and would be less than those generated by the proposed project; as such, traffic noise under the No Project/No Build Alternative would be less than the proposed project. Additionally, the No Project/No Build Alternative would not generate a residential population that could be impacted by roadway noise sources. Overall, the No Project/No Build would result in less-than-significant impacts related to noise and would be less when compared to the proposed project's less-than-significant impacts with mitigation.

Population and Housing

The No Project/No Build Alternative would continue the operation of the existing commercial buildings on the project site. No increase in the on-site population would occur. However, Alternative 1 would not accommodate the increase in residents and employees as planned by the GPU or pursuant to the SCAG growth projections and directives to provide for infill mixed-use development on underutilized sites in TPAs. Additionally, the No Project/No Build Alternative would not implement the vision and objectives of the GPU South Bristol Street Focus Area or the project objectives and would not result in a benefit to the jobs/housing balance. Overall, the No Project/No Build Alternative would result in no new impacts related to population and housing, which would be less when compared to the less-than-significant impacts of the proposed project.

Public Services

The No Project/No Build Alternative would continue use of the existing commercial buildings on the project site, and, similar to the proposed project, the employees on site would require public services. However, as the No Project/No Build Alternative would not result in an increase of residents and employees, the demand for fire services, police services, schools, and libraries would not change. Overall, the No Project/No Build Alternative would result in no new impacts related to public services, which would be less when compared to the less-than-significant impacts of the proposed project.

Recreation

The No Project/No Build Alternative would not generate any residents or additional employees, and no increase in demand for parks and recreation facilities would occur from this alternative. Accordingly, the No Project/No Build Alternative would not result in new impacts related to parks and recreation, and these impacts would be less than the impacts of the proposed project, which would not result in any new significant impacts or a substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR.

Transportation

The project site is located within a TPA. The No Project/No Build Alternative would not generate any new average daily trips as it would not have an increase of employees and new residents. However, this alternative would not implement the benefits of the proposed project, including developing an infill development consistent with the GPU and improving the job/housing balance. In addition, this alternative would not implement the proposed project's roadway, bicycle, and pedestrian network improvements, which would provide additional non-vehicular options to reduce dependency on passenger vehicle cars, time spent in traffic, and would link residents to jobs and services in comparison to a project of a similar size and land use not located within a

TPA. No new impacts beyond existing conditions related to transportation and traffic would occur from the No Project/No Build Alternative. In summary, the No Project/No Build Alternative would result in no new impacts related to transportation, but the opportunity cost of not implementing the project objectives and being inconsistent with SCAG's Connect SoCal 2020-2045 land use and policies would be greater when compared to the proposed project's less-than-significant impacts. Therefore, on balance, the impacts of the No Project/No Build Alternative are similar in magnitude to the impacts of the project.

Tribal Cultural Resources

The No Project/No Build Alternative would not involve construction activities, and no ground disturbance, including excavation or grading, would occur. Therefore, this alternative would not have the potential to impact unknown buried tribal cultural resources. This alternative would not require implementation of GPU PEIR MM CUL-6 and project-specific MMs TCR-1 through MM TCR-3 to reduce potential impacts that could occur during construction. Thus, no impacts to tribal cultural resources would occur under the No Project/No Build Alternative, which would be less when compared to the proposed project's less-than-significant impacts with mitigation.

Utilities and Service Systems

The No Project/No Build Alternative would operate the existing buildings on the project site with no increased demands for water, wastewater, stormwater, and dry utilities. However, this alternative would not include improvements to the water, wastewater, stormwater infrastructure, and this alternative would also not install public infrastructure and systems that incorporate LID measures. Therefore, impacts related to utilities and service systems under Alternative 1 would be less than significant and would be less when compared to the less-than-significant impacts of the proposed project.

Conclusion

Ability to Reduce Impacts

The No Project/No Build Alternative would result in the continued operation of the existing South Coast Plaza Village, containing seven commercial buildings, surface parking, and landscaping. Development and operation of the proposed mixed-use development would not occur. As a result, the No Project/No Build Alternative would result in reduced impacts related to construction and operation compared to the proposed project and would not require the mitigation measures as detailed in Chapter 4. However, the benefits of the proposed project would also not occur, including implementation of the GPU South Bristol Street Focus Area objectives; improvements to roadway, pedestrian, bicycle infrastructure; LID-compliant infrastructure improvements; provision of housing within a TPA; and improvements to the jobs/housing balance. Generally, the impacts of the No Project/No Build Alternative would be less in severity than those of the proposed project and would not require implementation of mitigation measures; however, this alternative would not implement the benefits resulting from the proposed project.

Ability to Achieve Project Objectives

As shown in Table 6-4: Summary Comparison of the Alternatives' Ability to Meet Project Objectives, the No Project/No Build Alternative would not meet any of the project objectives listed in Section 6.3. The No Project/No Build Alternative would continue the operation of the existing South Coast Plaza Village and maintain the existing seven commercial buildings and surface parking. The No Project/No Build Alternative would not implement the mixed-use development, containing integrated residential and commercial uses, which contributes to the creation of a

vibrant urban core by enhancing community amenities, recreational, and open space areas and providing alternative transportation and mobility options in the GPU South Bristol Street Focus Area. The project site would remain a conventional auto-oriented shopping plaza with large surface parking areas.

6.7.2 Alternative 2: Reduced Project Alternative

As discussed in Section 6.6.2 above, the Reduced Project Alternative would reduce the commercial square footage, change the residential mix to reduce the number of residents, and remove the office uses for the mixed-use development to minimize operational impacts to VOCs associated with area sources. Alternative 2 would reduce the commercial square footage to 50,000 square feet, eliminate office space, replace some standard residential units with senior living residences, and reduce total parking stalls and bicycle stalls. All other components would remain the same as the proposed project.

Environmental Impacts

Air Quality

The Reduced Project Alternative would reduce the commercial square footage by 30,000 square feet and parking stalls by approximately 1,200 stalls, which results in a shallower maximum depth of excavation by 30 feet bgs. Thus, this alternative would result in incrementally reduced construction emissions compared to the proposed project.

Due to the reduced extent of development, operation of the Reduced Project Alternative would result in correspondingly reduced operational emissions when compared to the proposed project, as shown below in Table 6-1: Reduced Project Alternative Operational Criteria Pollutant Emissions (Unmitigated).

Table 6-1: Reduced Project Alternative
Operational Criteria Pollutant Emissions (Unmitigated)

Emission Source	Maximum Emissions (pounds per day)[a,b]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Summer Emissions						
Mobile	22.30	14.20	174.00	0.47	48.20	12.40
Area	56.00	1.06	116.00	0.01	0.09	0.07
Energy	0.26	4.52	1.96	0.03	0.37	0.37
Total Proposed Project Summer Emissions	*91.68*	*43.99*	*339.66*	*0.73*	*64.74*	*18.43*
Total Baseline (Existing) Summer Emissions[c]	*32.24*	*20.33*	*210.97*	*0.48*	*42.89*	*11.20*
Total Reduced Alternative Summer Emissions	***78.56***	***19.78***	***291.96***	***0.51***	***48.66***	***12.84***
Net Change from Baseline (Existing) Summer Emissions	46.32	-0.55	80.99	0.03	5.77	1.64
Net Change from Baseline (Proposed Project)	*59.44*	*23.66*	*128.69*	*0.24*	*21.85*	*7.23*
SCAQMD Thresholds	55	55	550	150	150	55
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Winter Emissions						
Mobile	22.10	15.40	163.00	0.45	48.20	12.40
Area	43.90	-	-	-	-	-
Energy	0.26	4.52	1.96	0.03	0.37	0.37
Total Proposed Project Winter Emissions	*75.53*	*43.85*	*185.80*	*0.70*	*64.61*	*18.33*
Total Baseline (Existing) Winter Emissions	*30.64*	*21.89*	*191.46*	*0.46*	*42.88*	*11.19*

Table 6-1: Reduced Project Alternative
Operational Criteria Pollutant Emissions (Unmitigated)

Emission Source	Maximum Emissions (pounds per day)[a,b]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Total Reduced Alternative Winter Emissions	***66.26***	***19.92***	***164.96***	***0.48***	***48.57***	***12.77***
Net Change from Baseline (Existing) Winter Emissions	35.62	-1.97	-26.50	0.02	5.96	1.58
Net Change from Baseline (Proposed Project)	*44.88*	*21.97*	*-5.66*	*0.24*	*21.73*	*7.14*
SCAQMD Thresholds	55	55	550	150	150	55
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:

VOC = volatile organic compounds; NO_x = nitrogen oxide; CO = carbon monoxide; SO_x = sulfur dioxide; PM_{10} = particulate matter 10 micrometers in diameter or less; $PM_{2.5}$ = fine particulate matter 2.5 micrometers or less in diameter

[a] Emissions were calculated using CalEEMod version 2022.1, as recommended by SCAQMD.

[b] The numbers may not add up precisely due to rounding.

[c] Refer to Table 4.1-3 in Section 4.1, Air Quality, of this Draft Supplemental EIR.

Source: Refer to the Air Quality, Greenhouse Gas Emissions, Construction Health Risk Assessment, and Energy Modeling Outputs (Air Quality and GHG Modeling Outputs) (Appendix B) and Project Trip Generation for Alternatives 2 and 3 (Appendix L) for assumptions used in this analysis.

As shown above, operation of this alternative would not result in the exceedance of any of the SCAQMD thresholds at full buildout, thereby eliminating a significant impact from the proposed project and, as such, would not require implementation project-specific MM AQ-1. However, though Alternative 2 would involve less development than the proposed project and would result in lower construction emissions, the potentially significant health risk impact for residential sensitive receptors could remain during project construction. As such, implementation of GPU PEIR MM AQ-1, requiring the use of construction equipment rated by the USEPA as having Tier 4 emissions limits, would reduce the potentially significant health risk to a less-than-significant level. Regarding odors, the Reduced Project Alternative would result in less than significant impacts, similar to the proposed project, as this alternative would have the same types of land uses which would not result in significant impacts related to odors. Further, as the construction and operational emissions of this alternative would not exceed SCAQMD thresholds and the generated growth would be consistent with SCAG's growth forecast, the Reduced Project Alternative would not conflict with the 2022 Air Quality Management Plan, consistent with the proposed project. Overall, impacts related to air quality under the Reduced Project Alternative would be less than significant with mitigation, and would be less when compared to the less-than-significant-with-mitigation impacts for the proposed project.

Cultural Resources

Similar to the findings for the proposed project, no impacts related to historic resources would occur under the Reduced Project Alternative, as no historic resources were identified on site.

As discussed in Section 4.2, Cultural Resources, of this Draft Supplemental EIR, the sensitivity for archaeological resources at the project site is low at the surface but increases with depth. The Reduced Project Alternative would develop overall less building space and, thus, a smaller area for ground disturbing activities in comparison to the proposed project. In addition, maximum excavation depths would only reach 14 feet bgs compared to the 52 feet bgs under the proposed project. However, the Reduced Project Alternative would still require the same site preparation activities, including grading and excavation as the proposed project. Therefore, similar to the proposed project, the Reduced Project Alternative would require excavation for the subterranean level and would be required to implement GPU PEIR Mitigation Measure CUL-6 to reduce

potentially significant impacts related to archaeological resources. Further, as with the proposed project, in the unanticipated event that human remains are found during ground disturbing activities, compliance with California Health and Safety Code Section 7050.5, State CEQA Guidelines Section 15064.5, and Public Resources Code Section 5097.98 would ensure that impacts to human remains are less than significant. Overall, cultural resource impacts under the Reduced Project Alternative would be less than significant with mitigation and would be similar when compared to the impact determination for the proposed project.

Energy

The Reduced Project Alternative would redevelop the project site to provide multi-family residential units, senior living units, and commercial uses that would require energy resources. As with the proposed project, the Reduced Project Alternative would be developed in compliance with the California Green Building Standards Code, Part 11, Title 24 of the California Code of Regulations (CALGreen Code) related to energy and would include similar features to reduce energy consumption. The Reduced Project Alternative would result in less-than-significant impacts for energy resources, similar to the proposed project. However, as the Reduced Project Alternative would be required to implement the same energy efficient measures for less square footage of commercial and residential space, and eliminate office uses, there would be less overall energy demand when compared to the proposed project. Therefore, impacts related to energy use under this alternative would be less than significant and would be less when compared to those of the proposed project.

Geology and Soils

Although the area of ground disturbance and maximum excavation depths would be reduced under the Reduced Project Alternative, grading, excavation, and development of the entire project area would still occur, and, therefore, impacts to geology and soils would be similar to those that would be generated from the proposed project. As with the proposed project, additional residents, employees, and structures on the project site under this alternative would be subject to risks associated with seismic ground shaking and geologic hazards. Accordingly, as with the proposed project, the Reduced Project Alternative would be required to comply with current seismic safety and building codes and implement project-specific MMs G-1 and G-2 to prepare a final design-level geotechnical investigation and incorporate its recommendations. As such, impacts to geology and soils under this alternative would remain less than significant with mitigation and would be similar to those of the proposed project.

The Reduced Project Alternative would result in a reduced potential to adversely affect paleontological resources on the project site when compared to the proposed project during ground disturbance in undisturbed depths, due to the reduction in area of ground disturbance and maximum excavation depth. However, as the potential to impact paleontological resources would still exist as with the proposed project, the Reduced Project Alternative would still be required to implement GPU PEIR MM GEO-2 and MM GEO-3 and project-specific MM G-3 to reduce potential impacts to paleontological resources. As such, impacts to paleontological resources under this alternative would be less than significant with mitigation, though similar than the impacts of the proposed project.

Greenhouse Gas Emissions

The Reduced Project Alternative would reduce the commercial square footage by 30,000 square feet, reduce the number of parking stalls requiring less subterranean parking, and remove the office uses, which would result in a shallower maximum depth of excavation. Thus, this alternative would result in incrementally reduced GHG emissions during construction compared to the

proposed project. In addition, the Reduced Project Alternative would generate fewer emissions from operation in comparison to the proposed project because of the reduced operational uses and associated VMT. Under the Reduced Project Alternative, the overall volume of GHG emissions would incrementally be reduced in comparison to the proposed project, and no mitigation would be required.

As the Reduced Project Alternative would implement a mixed-use development on an infill site within a TPA, this alternative would also be consistent with the CARB 2022 Scoping Plan, SCAG Connect SoCal, Connect SoCal 2024, and the City's GPU and Climate Action Plan. Thus, potential impacts to GHG emissions would be less than significant under this alternative and would be less when compared to those of the proposed project.

Hazards and Hazardous Materials

The Reduced Project Alternative would require the same types of construction activities that may release hazardous materials, including demolition, grading, and excavation. Similar to the proposed project, this alternative would still require removal and remediation of potentially hazardous materials contained in the existing building materials in accordance with all applicable federal, state, and local regulations. Further, similar to the proposed project, the Reduced Project Alternative would require review by the Orange County Airport Land Use Commission due to the site's proximity to John Wayne Airport (SNA). However, as with the proposed project, the Reduced Project Alternative would result in less-than-significant impacts related to John Wayne Airport (SNA) operational hazards, as well as emergency response or evacuation, as the same internal circulation improvements would occur under this alternative. No impact related to wildfire risk would occur. Overall, impacts related to hazards and hazardous materials from the Reduced Project Alternative would be less than significant and would be similar to those of the proposed project.

Hydrology and Water Quality

The Reduced Project Alternative would result in similar construction impacts compared to the proposed project because similar types of construction activities and soil disturbances would occur. As a result, as with the proposed project, the Reduced Project Alternative would adhere to applicable permits and implement BMPs and a project specific Stormwater Pollution Prevention Plan to reduce potential impacts related to water quality during construction. As with the proposed project, during operation, the Reduced Project Alternative would be expected to implement LID measures and stormwater infrastructure improvements, including source control, treatment control BMPs, and a proposed water quality system to manage and minimize runoff and water pollution. As such, impacts related to hydrology and water quality would be less than significant under the Reduced Project Alternative and would be similar to those of the proposed project.

Land Use and Planning

The Reduced Project Alternative would implement a mix of land uses, including multi-family housing, senior living units, and retail commercial land uses, on the project site. Implementation of the Reduced Project Alternative would include adoption of a Specific Plan, which would replace the existing zoning of the project site. The City's GPU Land Use Element designates the project site as District Center-High (DC-5) land use, which is a mixed-use designation providing transit-oriented and high-density urban villages consisting of visually striking and dynamic buildings and spaces with a wide range and mix of residential, live-work, commercial, hotel, and employment-generating uses.

Similar to the proposed project, the Reduced Project Alternative would provide land uses that would be integrated into and complement the adjacent and nearby areas. However, the Reduced Project Alternative would not include office uses and would provide fewer retail services for on-site residents and employees. The Reduced Project Alternative would build out the GPU's DC-5 designation as a major development activity area and anchor to the City's commercial corridors, although to a lesser extent than the proposed project. The Reduced Project Alternative would implement the GPU South Bristol Street Focus Area vision and objectives to a lesser extent than the proposed project, due to the reduced commercial and multi-family residential square footage and removal of office uses. Similarly, the Reduced Project Alternative would implement many of the SCAG policies related to high-density, infill development, and improvement of the job/housing balance but to a lesser degree than the proposed project. Accordingly, land use impacts from the Reduced Project Alternative would be less than significant, similar to the less-than-significant impacts of the proposed project.

Noise

The Reduced Project Alternative would result in the same duration of construction activities compared to the proposed project, as the construction phasing would remain the same; however, the intensity of construction activities and resulting noise levels would be less due to the reduced square footage of buildings and maximum excavation depth. Thus, construction noise and vibration impacts from the Reduced Project Alternative would be less than significant after mitigation and would be less than those of the proposed project.

Operation of the Reduced Project Alternative would generate noise from mobile sources (i.e., vehicular trips) and stationary sources (i.e., mechanical equipment, parking, outdoor areas, etc.). The net number of daily vehicular trips generated by this alternative would decrease by 170 trips when accounting for the number of daily vehicular trips generated by the existing South Coast Plaza Village, while the net number of daily vehicular trips generated by the proposed project would increase by 3,018 trips. Therefore, traffic noise under this alternative would be less. However, the Reduced Project Alternative would result in similar types of noise from stationary sources. Thus, as with the proposed project, the operational noise levels generated under this alternative would be less than significant, but would be less than those of the proposed project.

Population and Housing

The Reduced Project Alternative would reduce the commercial square footage by 30,000 square feet and replace the office uses proposed under the proposed project with senior living units. Thus, this alternative would develop a multi-family residential area with 1,433 units, a senior (age restricted) living area of 150 units, and 50,000 square feet of retail and commercial uses. The Reduced Project Alternative would generate approximately 3,604 persons for both the residential area and senior living units.[2] This is less than the population generated by the proposed project (3,659 persons); thus, similarly, this alternative would not exceed the growth identified in the GPU PEIR. Additionally, the Reduced Project Alternative would generate approximately 234 employees.[3] However, these jobs would replace the estimated 328 jobs already existing at the

[2] Based on person per household rates provided in the GPU PEIR, Appendix B, Table 4. Based on the nature of senior continuum care uses, one unit is assumed to house one resident (1,433 x 2.41 = 3,454 persons + 150 persons from the senior living area = 3,604 persons).

[3] Based on employment factors provided in the GPU PEIR, Appendix B, Table 3. For commercial uses, a buildout factor of 500 square feet per employee was applied (50,000 square feet/500 employees = 100 employees). For medical, the employment factor for the senior continuum care use is based on the SCAG Employment Density Study Summary Report, October 2001 prepared by The Natelson Company, Inc., Table B-1 Employment Densities

project site for the approximately 164,049 square feet of commercial uses; therefore, employment opportunities associated with the Reduced Project Alternative would decrease from existing conditions and would not result in growth. Therefore, impacts related to population and housing under this alternative would be less than significant and would be less than those of the proposed project.

Public Services

As described above, buildout of the Reduced Project Alternative would generate approximately 3,604 residents and 234 employees, which would be less than those estimated for the proposed project. However, as with the proposed project, the Reduced Project Alternative would still result in additional demand for fire, police, school, park, and library services. Therefore, as with the proposed project, impacts related to public services under this alternative would be less than significant and would be less when compared to the proposed project due to a smaller demand.

Recreation

The Reduced Project Alternative would provide 7.5 acres of publicly accessible parks/recreation facilities and open space. The Reduced Project Alternative would have a recreation-to-resident ratio of 2.1 acres per 1,000 residents, which is higher than the 2 acres per 1,000 residents ratio of the proposed project. Both of these ratios are higher than the 1.2 ratio of the GPU PEIR which is lower than the GPU's parkland standard of 3 acres per 1,000 residents. While the ratio would remain below the GPU's parkland standard, the Reduced Project Alternative would be higher than the GPU buildout's parkland-per-resident ratio. Therefore, recreation impacts for the Reduced Project Alternative would be significant and unavoidable and would be similar when compared to the impact determination for the proposed project.

Transportation

Similar to the proposed project, the Reduced Project Alternative would construct a mixed-use development within a TPA. Given this alternative would be located within a TPA and would be consistent with SCAG's Connect SoCal 2020-2045 land use and policies, it would screen out of a VMT analysis and be presumed to result in less-than-significant impacts related to VMT. The Reduced Project Alternative would generate 8,506 daily vehicular trips. This would equate to 170 fewer daily vehicular trips compared to existing conditions, while the proposed project would generate 3,018 additional trips compared to existing conditions. In addition, this alternative would implement the same roadway, pedestrian, and bicycle improvements as the proposed project. Alternative 2 would implement high-density, infill development, and improve the job/housing balance, but would not meet the GPU South Bristol Street Focus Area vision and objectives to the same extent as the proposed project. Therefore, impact levels resulting from implementation of the Reduced Project Alternative would be less than significant and would be less than those of the proposed project.

Tribal Cultural Resources

The Reduced Project Alternative would develop overall less building space and, thus, a smaller area for ground disturbing activities in comparison to the proposed project. In addition, maximum excavation depths would only reach 14 feet bgs compared to the 52 feet bgs under the proposed project. However, the Reduced Project Alternative would still require the same site preparation activities, including grading and excavation as the proposed project, and have the same potential

(employees per acre) for Special Care Facilities (Code 1252) for Orange County factor of 32.24 employees per acre (4.15 acres x 32.24 employees = 134 employees).

to encounter and disturb buried tribal cultural resources. Therefore, as with the proposed project, the Reduced Project Alternative would implement GPU PEIR MM CUL-6 and project-specific MM TCR-1 through MM TCR-3 to reduce potential impacts that could occur during construction. Thus, impacts to tribal cultural resources under the Reduced Project Alternative would be less than significant with mitigation and would be similar when compared to the impact determination for the proposed project.

Utilities and Service Systems

As with the proposed project, the Reduced Project Alternative would result in a new resident population albeit lower with the construction of 150 senior housing units, which would require improvements to the existing water, wastewater, and stormwater infrastructure. However, this alternative would result in a lower demand for domestic water supplies, wastewater treatment, and landfill capacity than the proposed project because of the reduced commercial square footage and elimination of office uses. As with the proposed project, the Reduced Project Alternative would install new on-site infrastructure that would connect to off-site infrastructure to ensure that the demand for public utilities and service systems generated by the proposed uses under this alternative would be sufficiently met. Impacts to utilities and service systems would be less than significant under the Reduced Project Alternative and would be less when compared to those of the proposed project.

Conclusion

Ability to Reduce Impacts

The Reduced Project Alternative would reduce the commercial square footage, change the residential mix to reduce the number of residents, and remove the office uses from the mixed use development to minimize operational impacts to VOCs associated with area sources and construction-related impacts related to ground disturbance. The Reduced Project Alternative would have no office uses, reduce commercial space to 50,000 square feet, and have a multi-family residential area with 1,433 standard residential units and a senior (age restricted) living area of 150 units. The Reduced Project Alternative would result in a reduced magnitude of impacts related to construction activities and the resulting area and depth of ground disturbance and volume of excavation. As such, construction-related impacts related to air quality, GHG emissions, and noise would be reduced. However, as with the proposed project, impacts would still be less than significant or less than significant with mitigation, which would be similar to those of the proposed project due to the similar types of construction activities.

During operation, the Reduced Project Alternative would be expected to result in reduced emissions of criteria pollutants (e.g., minimize operational impacts to VOCs associated with area sources) and GHGs, energy consumption, vehicle miles traveled, overall population, and demand for public services, parks, and utility services. The overall reduction in volume of these factors would occur primarily due to the reduced commercial square footage, elimination of office uses, and the replacement of some standard residential units with senior living residences. The Reduced Project Alternative would provide 7.5 acres of publicly accessible parks/recreation facilities and open space, resulting in a slightly higher recreation-to-resident ratio of 2.1 acres per 1,000 residents than the proposed project. However, significant and unavoidable impacts to recreation would remain. Although the volume of impacts would be reduced by the Reduced Project Alternative in comparison to the proposed project, the Reduced Project Alternative would not eliminate the significant and unavoidable recreation impacts or the less-than-significant impacts of the proposed project.

Ability to Achieve Project Objectives

As shown in Table 6-4: Summary Comparison of the Alternatives' Ability to Meet Project Objectives, the Reduced Project Alternative would meet the project objectives, but not to the same extent as the proposed project. The Reduced Project Alternative would still transform the conventional auto-oriented shopping plaza with large surface parking areas to a mixed-use development. However, this alternative would not maximize the opportunities to the same extent as the proposed project as described in the project objectives to incorporate a mix of high-intensity office and residential living with experiential commercial uses as there would be fewer retail services and no office uses. Although this alternative would still provide new retail services and associated jobs, the fewer retail services would result in a net decrease of jobs from existing conditions and would not complement the South Coast Metro area with a diversity of new housing in a jobs-rich environment as strongly as the proposed project.

6.7.3 Alternative 3: Reduced Project with No Subterranean Parking Alternative

As discussed in Section 6.6.3 above, the Reduced Project with No Subterranean Parking Alternative would reduce residential and commercial uses and remove office space to minimize operational impacts to VOCs associated with area sources and avoid the construction-related impacts related to ground disturbance required for subterranean parking (i.e., excavations below 14 bgs). The Reduced Project with No Subterranean Parking Alternative would reduce the number of residential units from 1,583 units to 1,000 units; reduce the commercial square footage from 80,000 square feet to 25,000 square feet; eliminate subterranean parking and associated excavation activities; remove the 300,000 square feet of office space; reduce publicly accessible parks/recreation facilities and open space to 6.8 acres, reduce total parking stalls and bicycle stalls; and reduce the overall length and magnitude of construction phasing. All other components would remain the same as the proposed project.

Environmental Impacts

Air Quality

The Reduced Project with No Subterranean Parking Alternative would reduce residential units and total commercial square footage and eliminate office space, the subterranean parking and its associated excavation activities. Thus, this alternative would result in reduced construction emissions compared to the proposed project.

Operation of the Reduced Project with No Subterranean Parking Alternative would result in reduced operational emissions when compared to the proposed project, as shown below in Table 6-2: Reduced Project with No Subterranean Parking Alternative Operational Criteria Pollutant Emissions (Unmitigated).

Table 6-2: Reduced Project with No Subterranean Parking Alternative Operational Criteria Pollutant Emissions (Unmitigated)

Emission Source	Maximum Emissions (pounds per day)[a,b]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Summer Emissions						
Mobile	12.50	8.04	99.30	0.27	27.70	7.12
Area	35.40	0.66	71.8	<0.01	0.05	0.04
Energy	0.17	2.84	1.23	0.02	0.23	0.23
Total Proposed Project Summer Emissions	*91.68*	*43.99*	*339.66*	*0.73*	*64.74*	*18.43*
Total Baseline (Existing) Summer Emissions[c]	*32.24*	*20.33*	*210.97*	*0.48*	*42.89*	*11.20*
Total No Subterranean Parking Alternative Summer Emissions	***48.07***	***11.54***	***172.33***	***0.29***	***27.98***	***7.39***

Table 6-2: Reduced Project with No Subterranean Parking Alternative Operational Criteria Pollutant Emissions (Unmitigated)

Emission Source	Maximum Emissions (pounds per day)[a,b]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Net Change from Baseline (Existing) Summer Emissions	15.83	-8.79	-38.64	-0.19	-15.00	-3.81
Net Change from Baseline (Proposed Project)	*59.44*	*23.66*	*128.69*	*0.24*	*21.85*	*7.23*
SCAQMD Thresholds	55	55	550	150	150	55
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Winter Emissions						
Mobile	12.40	8.73	92.80	0.26	27.7	7.12
Area	28.10	-	-	-	-	-
Energy	0.17	2.84	1.23	0.02	0.23	0.23
Total Proposed Project Winter Emissions	*75.53*	*43.85*	*185.80*	*0.70*	*64.61*	*18.33*
Total Baseline (Existing) Winter Emissions	*30.64*	*21.89*	*191.46*	*0.46*	*42.88*	*11.19*
Total No Subterranean Parking Alternative Winter Emissions	***40.67***	***11.57***	***94.03***	***0.28***	***27.93***	***7.35***
Net Change from Baseline (Existing) Winter Emissions	10.03	-10.32	-97.43	-0.18	-14.95	-3.84
Net Change from Baseline (Proposed Project)	*44.88*	*21.97*	*-5.66*	*0.24*	*21.73*	*7.14*
SCAQMD Thresholds	55	55	550	150	150	55
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: VOC = volatile organic compounds; NO_x = nitrogen oxide; CO = carbon monoxide; SO_x = sulfur dioxide; PM_{10} = particulate matter 10 micrometers in diameter or less; $PM_{2.5}$ = fine particulate matter 2.5 micrometers or less in diameter

[a] Emissions were calculated using CalEEMod version 2022.1, as recommended by SCAQMD.

[b] The numbers may not add up precisely due to rounding.

[c] Refer to Table 4.1-3, in Section 4.1, Air Quality, of this Draft Supplemental EIR.

Source: Refer to the Air Quality and GHG Modeling Outputs (Appendix B) and Project Trip Generation for Alternatives 2 and 3 (Appendix L) for assumptions used in this analysis.

As shown above, operation of this alternative would not result in the exceedance of any of the SCAQMD thresholds at full buildout thereby eliminating a significant impact from the proposed project, and, as such, would not require implementation of project-specific MM AQ-1. However, though Alternative 3 would involve less development than the proposed project and would result in lower construction emissions, the potentially significant health risk impact for residential sensitive receptors could remain during project construction. As such, implementation of GPU PEIR MM AQ-1, requiring the use of construction equipment rated by the USEPA as having Tier 4 emissions limits, would reduce the potentially significant health risk to a less-than-significant level. Regarding odors, the Reduced Project with No Subterranean Parking Alternative would result in less than significant impacts, similar to the proposed project, as this alternative would have the same types of land uses which would not result in significant impacts related to odors. Further, as the construction and operational emissions of this alternative would not exceed SCAQMD thresholds and the generated growth would be consistent with SCAG's growth forecast, the Reduced Project Alternative would not conflict with the 2022 Air Quality Management Plan, consistent with the proposed project. Overall, impacts related to air quality under the Reduced Project with No Subterranean Parking Alternative would be less than significant with mitigation and would be less when compared to the less-than-significant-with-mitigation impacts for the proposed project.

Cultural Resources

Similar to the findings for the proposed project, no impacts related to historic resources would occur under the Reduced Project with No Subterranean Parking Alternative, as no historic resources were identified on site. The Reduced Project with No Subterranean Parking Alternative

would not require substantial excavation due to the removal of the subterranean level. However, minor ground disturbance may still occur due to trenching for utilities, grading, and paving. As such, the Reduced Project with No Subterranean Parking Alternative would still be required to implement GPU PEIR Mitigation Measure CUL-6 to reduce potentially significant impacts related to archaeological resources. Further, as with the proposed project, in the unanticipated event that human remains are found during ground disturbing activities, compliance with California Health and Safety Code Section 7050.5, State CEQA Guidelines Section 15064.5, and Public Resources Code Section 5097.98 would ensure that impacts to human remains are less than significant. Overall, impacts to cultural resources under the Reduced Project with No Subterranean Parking Alternative would be less than significant with mitigation, but residual impacts would be less than those of the proposed project.

Energy

The Reduced Project with No Subterranean Parking Alternative would redevelop the project site to provide multi-family residential units and commercial uses that would result in an additional demand for energy resources. As with the proposed project, the Reduced Project with No Subterranean Parking Alternative would be developed in compliance with Title 24 Standards, including the requirements of the CALGreen Code, related to energy efficiency and would include similar features to reduce energy consumption. As with the proposed project, the Reduced Project with No Subterranean Parking Alternative would result in less-than-significant impacts for energy resources. However, as the Reduced Project with No Subterranean Parking Alternative would be required to implement the same energy efficient measures for less square footage of commercial and residential space, and eliminate office uses, there would be less overall energy demand than the proposed project; as such, impacts related to energy use under this alternative would be less when compared to those of the proposed project.

Geology and Soils

The Reduced Project with No Subterranean Parking Alternative would not require substantial excavation due to the removal of the subterranean level; however, minor ground disturbance may still occur due to trenching, grading, and paving activities. As such, construction-related impacts to geology and soils associated with liquefaction, settlement, collapse, subsidence, and expansive soils would be reduced when compared to the proposed project. As with the proposed project, additional residents, employees, and structures on the project site under this alternative would be subject to risks associated with seismic ground shaking and geologic hazards. Accordingly, as with the proposed project, the Reduced Project with No Subterranean Parking Alternative would be required to comply with current seismic safety and building codes and implement project-specific MMs G-1 and G-2 to prepare a final design-level geotechnical investigation and incorporate its recommendations. As such, impacts to geology and soils under this alternative would remain less than significant with mitigation, but residual impacts would be less than those of the proposed project.

Further, construction activities under this alternative result in a reduced potential to adversely affect paleontological resources on the project site when compared to the proposed project during ground disturbance in undisturbed depths, due to the reduction in area of ground disturbance and maximum excavation depth. However, as the potential to impact paleontological resources would still exist as with the proposed project, the Reduced Project with No Subterranean Parking Alternative would still be required to implement GPU PEIR MM GEO-2 and MM GEO-3 and project-specific MM G-3 to reduce potential impacts to paleontological resources. Therefore, overall impacts to geology and soils, specifically impacts to paleontological resources, under this

alternative would be less than significant with mitigation, but residual impacts would be less than those of the proposed project.

Greenhouse Gas Emissions

The Reduced Project with No Subterranean Parking Alternative would reduce residential units, commercial square footage, length and magnitude of construction phasing, and eliminate subterranean parking, the associated excavation activities, and office space. As such, the Reduced Project with No Subterranean Parking Alternative is anticipated to reduce the duration and intensity of construction activities compared to the proposed project, which in turn would result in less overall construction-related GHG emissions. In addition, the Reduced Project with No Subterranean Parking Alternative would generate fewer emissions from operation in comparison to the project because of the reduced operational uses and associated VMT. Under the Reduced Project with No Subterranean Parking Alternative, the overall volume of GHG emissions would incrementally be reduced in comparison to the proposed project.

As the Reduced Project with No Subterranean Parking Alternative would implement a mixed-use development on an infill site within a TPA, this alternative would also be consistent with the CARB 2022 Scoping Plan, SCAG Connect SoCal, and the City's GPU and Climate Action Plan. Thus, potential impacts to GHG emissions would be less than significant and would be less when compared to those of the proposed project.

Hazards and Hazardous Materials

Although the Reduced Project with No Subterranean Parking Alternative would not require excavation activities, it would still require demolition of the existing buildings, which may release hazardous materials, including asbestos containing materials, lead based paint, and polychlorinated biphenyls potentially contained in the building materials. Therefore, similar to the proposed project, this alternative would still require removal and remediation of potentially hazardous materials in accordance with all applicable federal, state, and local regulations. Further, similar to the proposed project, the Reduced Project with No Subterranean Parking Alternative would require review by the Orange County Airport Land Use Commission due to the site's proximity to John Wayne Airport (SNA). However, as with the proposed project, the Reduced Project Alternative would result in less-than-significant impacts related to John Wayne Airport (SNA) operational hazards as well as emergency response or evacuation as the same internal circulation improvements would occur under this alternative. No impact related to wildfire risk would occur. Overall, impacts related to hazards and hazardous materials from the Reduced Project with No Subterranean Parking Alternative would be less than significant and would be similar to those of the proposed project.

Hydrology and Water Quality

The Reduced Project with No Subterranean Parking Alternative would result in reduced construction impacts compared to the proposed project because excavation would not occur, though minor ground disturbance would still occur. Similar to the proposed project, the Reduced Project with No Subterranean Parking Alternative would adhere to applicable permits and implement BMPs and a project specific Stormwater Pollution Prevention Plan to reduce potential impacts related to water quality during construction. The Reduced Project with No Subterranean Parking Alternative would construct two surface parking lots and a three-level parking garage in addition to podium parking lots within the residential buildings; therefore, the impermeable surfaces would be greater under this alternative than under the proposed project. The proposed project which would include features with permeable surfaces including a publicly accessible park and plaza and landscaping features surrounding the buildings within the same footprint. However,

during operation, the Reduced Project with No Subterranean Parking Alternative would implement LID measures and stormwater infrastructure improvements, including source control, treatment control BMPs, and a proposed water quality system to manage and minimize runoff and water pollution. As such, impacts related to hydrology and water quality would be less than significant under the Reduced Project with No Subterranean Parking Alternative and, on balance, similar to those of the proposed project.

Land Use and Planning

The Reduced Project with No Subterranean Parking Alternative would implement a mix of land uses, including multi-family housing and retail commercial uses, on the project site. Implementation of this alternative would include adoption of a Specific Plan, which would replace the existing zoning of the project site. Similar to the proposed project, the Reduced Project with No Subterranean Parking Alternative would provide land uses that would be integrated into and complement the adjacent and nearby areas. However, the Reduced Project with No Subterranean Parking Alternative would provide fewer residential units, retail services, and no office uses. As such, the Reduced Project with No Subterranean Parking Alternative would implement the GPU South Bristol Street Focus Area objectives and many of the SCAG policies related to high-density, infill development, and improvement of the job/housing balance, but to a lesser extent than the proposed project. Overall, land use impacts from the Reduced Project with No Subterranean Parking Alternative would be less than significant, similar to those of the proposed project.

Noise

The Reduced Project with No Subterranean Parking Alternative would result in reduced types of construction activities (i.e., no excavation) and a reduced magnitude and schedule in construction phasing for Phases 4 and 5. Thus, as with the proposed project, construction noise and vibration impacts from the Reduced Project with No Subterranean Parking Alternative would be less than significant with mitigation and would be less when compared to those of the proposed project.

Operation of the Reduced Project with No Subterranean Parking Alternative would generate noise from mobile sources (i.e., vehicular trips) and stationary sources (i.e., mechanical equipment, parking, outdoor areas, etc.), similar to the proposed project. As commercial and residential uses would be reduced and office uses would be eliminated, mobile source noise under this alternative would be incrementally less. However, the Reduced Project with No Subterranean Parking Alternative would result in similar types of noise from stationary source noise. Thus, the operational noise levels generated under this alternative would be less than significant and would be less than those of the proposed project.

Population and Housing

The Reduced Project with No Subterranean Parking Alternative would result in a reduction of residential units, with 1,000 units compared to the 1,583 units provided by the proposed project. The Reduced Project with No Subterranean Parking Alternative would generate approximately 2,410 persons for the residential units.[4] This is less than the population generated by the proposed project (3,659 persons); thus, this alternative similarly would not exceed the growth identified in the GPU PEIR. Further, the Reduced Project with No Subterranean Parking Alternative would also reduce the commercial area, totaling 25,000 square feet compared to the 80,000 square feet provided by the proposed project and eliminate office space. The Reduced

[4] Based on person per household rates provided in the GPU PEIR, Appendix B, Table 4 (1,000 units x 2.41 = 2,410 persons).

Project with No Subterranean Parking would generate approximately 50 employees.[5] However, these jobs would replace the estimated 328 jobs already existing at the project site for the approximately 164,049 square feet of commercial uses; therefore, employment opportunities associated with this Reduced Project with No Subterranean Parking Alternative would decrease from existing conditions and would not result in growth. Therefore, impacts related to population and housing under this alternative would be less than significant and would be less than those of the proposed project.

Public Services

As described above, buildout of the Reduced Project with No Subterranean Parking Alternative would generate approximately 2,410 residents and 50 employees, which would be less than those estimated for the proposed project. However, as with the proposed project, the Reduced Project with No Subterranean Parking Alternative would still result in additional demand for fire, police, school, park, and library services. As such, as with the proposed project, impacts related to public services under this alternative would be less than significant and would be less when compared to the proposed project due to a smaller demand.

Recreation

The Reduced Project with No Subterranean Parking Alternative would include 6.8 acres of publicly accessible parks/recreation facilities and open space. The Reduced Project with No Subterranean Parking Alternative would have a recreation-to-resident ratio of 2.8 acres per 1,000 residents which is higher than the 2 acres per 1,000 residents ratio of the proposed project. While the Reduced Project with No Subterranean Parking Alternative would be higher than the GPU buildout's parkland-per-resident ratio, the ratio would remain below the GPU's parkland standard of 3 acres per 1,000 residents. Therefore, recreation impacts for the Reduced Project Alternative would be significant and unavoidable and would be similar when compared to the impact determination for the proposed project.

Transportation

Similar to the proposed project, the Reduced Project with No Subterranean Parking Alternative would construct a mixed-use development within a TPA. Given this alternative would be located within a TPA and would be consistent with SCAG's Connect SoCal 2020-2045 land use and policies, it would screen out of a VMT analysis and be presumed to result in less-than-significant impacts related to VMT. The Reduced Project with No Subterranean Parking Alternative would generate 4,723 daily vehicular trips. This would equate to 3,953 fewer daily vehicular trips compared to existing conditions, while the proposed project would generate 3,018 additional trips compared to existing conditions. In addition, this alternative would implement the same roadway, pedestrian, and bicycle improvements as the proposed project. As discussed under Land Use and Planning, Alternative 3 would implement high-density, infill development, and improve the job/housing balance, but would not meet the GPU South Bristol Street Focus Area vision and objectives to the same extent as the proposed project. Therefore, impact levels resulting from implementation of the Reduced Project with No Subterranean Parking Alternative would be less than significant and would be less than those of the proposed project.

Tribal Cultural Resources

[5] Based on employment factors provided in the GPU PEIR, Appendix B, Table 3. For commercial uses, a buildout factor of 500 square feet per employee was applied (25,000 sf/500 employees = 50 employees).

The Reduced Project with No Subterranean Parking Alternative would not require extensive excavation due to the removal of the subterranean level. However, minor ground disturbance may still occur due to site preparation activities such as trenching, grading, and paving and Alternative 3 may have the same potential to encounter and disturb buried tribal cultural resources. Therefore, as with the proposed project, the Reduced Project Alternative would implement GPU PEIR MM CUL-6 and project-specific MM TCR-1 through MM TCR-3 to reduce potential impacts that could occur during construction. Thus, impacts to tribal cultural resources under the Reduced Project with No Subterranean Parking Alternative would be less than significant with mitigation, but residual impacts would be less than those of the proposed project.

Utilities and Service Systems

As with the proposed project, the Reduced Project with No Subterranean Parking Alternative would result in a new resident population, which would require improvements to the existing water, wastewater, and stormwater infrastructure. However, this alternative would result in a lower demand for domestic water supplies, wastewater treatment, and landfill capacity because of the reduced commercial square footage and residential units and removal of office space. As with the proposed project, the Reduced Project with No Subterranean Parking Alternative would install new on-site infrastructure that would connect to off-site infrastructure to ensure that the demand for public utilities and service systems generated by the proposed uses under this alternative would be sufficiently met. Impacts to utilities and service systems would be less than significant under the Reduced Project with No Subterranean Parking Alternative and would be less when compared to those of the proposed project.

Conclusion

Ability to Reduce Impacts

The Reduced Project with No Subterranean Parking Alternative would reduce residential and commercial uses and remove office space to minimize operational impacts to VOCs associated with area sources and avoid the construction-related impacts related to ground disturbance required for subterranean parking (i.e., excavations below 14 bgs). The Reduced Project with No Subterranean Parking Alternative would have no office uses, reduce commercial space by 65,000 square feet, and reduce residential units by 583 units, as compared to the proposed project. Further, this alternative would not construct any subterranean parking or require the associated excavation activities. The Reduced Project with No Subterranean Parking Alternative would result in a reduced magnitude of impacts related to construction activities and resulting area and depth of ground disturbance. As such, construction impacts related to air quality, cultural resources, geology and soils, GHG emissions, noise, and tribal cultural resources would be reduced. However, as with the proposed project, impacts would still be less than significant or less than significant with mitigation, but residual impacts would be less when compared to those of the proposed project.

During operation, the Reduced Project with No Subterranean Parking Alternative would be expected to result in reduced emissions of criteria pollutants and GHGs, energy consumption, vehicle miles traveled, overall population, and demand for public services and utility services. The overall reduction in volume of these factors would occur primarily due to the reduced commercial square footage and residential population, as well as the elimination of the office population. The Reduced Project with No Subterranean Parking Alternative would provide 6.8 acres of publicly accessible parks/recreation facilities and open space, resulting in a higher recreation-to-resident ratio of 2.8 acres per 1,000 residents than the proposed project. However, significant and unavoidable impacts to recreation would remain. Although the volume of impacts would be

reduced by the Reduced Project with No Subterranean Parking Alternative in comparison to the proposed project, the Reduced Project with No Subterranean Parking Alternative would not eliminate the significant and unavoidable recreation impacts or the less-than-significant impacts of the proposed project.

Ability to Achieve Project Objectives

As shown in Table 6-4: Summary Comparison of the Alternatives' Ability to Meet Project Objectives, the Reduced Project with No Subterranean Parking Alternative would not fully meet all of the project objectives. Though the Reduced Project with No Subterranean Parking Alternative would transform the conventional auto-oriented shopping plaza with large surface parking areas to a mixed-use development, this alternative would not maximize the opportunities as described in the project objectives as there would be fewer retail services and park space, no office uses, and no subsurface shared parking areas. The reduced commercial and removal of office uses would result in a net decrease of jobs from existing conditions that would not fully maximize the economic opportunities of the project site as encouraged by the GPU or complement the South Coast Metro area with a diversity of new housing in a jobs-rich environment.

6.8 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires a lead agency to identify the "environmentally superior alternative" when significant environmental impacts result from a proposed project. The Environmentally Superior Alternative for the proposed project would be the No Project/No Build Alternative. Compared to the proposed project, the No Project/No Build Alternative would avoid all potential construction impacts, reduce many of the operational impacts, and would not be required to implement the mitigation measures related to air quality, cultural resources, geology and soils, noise, and tribal cultural resources. However, as discussed, the benefits of the proposed project would also not occur, including implementation of the GPU South Bristol Street Focus Area objectives; improvements to roadway, pedestrian, and bicycle infrastructure; infrastructure improvements in compliance with the CALGreen Code and LID requirements; provision of housing within a TPA; and improvements to the jobs/housing balance and potential to reduce VMT.

Additionally, State CEQA Guidelines Section 15126.6(3)(1) states:

> The "no project" analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

Therefore, pursuant to CEQA, because the No Project/No Build Alternative has been identified as the Environmentally Superior Alternative, the Environmentally Superior Alternative among the other alternatives would be the Reduced Project with No Subterranean Parking Alternative, which would involve redevelopment of the site with reduced multi-family residential units to 1,000 units, reduced retail square footage to 25,000 square feet, and the removal of office uses and subterranean parking, which would eliminate the need for extensive excavation activities and reduce the magnitude of construction phasing. The reduction or elimination of project components under this alternative would result in reduced impacts to operational air quality emissions, energy, GHG emissions, noise, population and housing, transportation, and demand for public services and utility services. The Reduced Project with No Subterranean Parking Alternative would still

require mitigation measures during construction related to air quality, cultural resources, geology and soils, noise and tribal cultural resources, though the residual impacts would be less than those of the proposed project.

Operation of the Reduced Project with No Subterranean Parking Alternative would still result in less-than-significant impacts that are similar when compared to the proposed project for hazards and hazardous materials, hydrology and water quality, and land use and planning. This alternative would also result in reduced operational air quality emissions, eliminating the need for the project specific MM AQ-1. The Reduced Project with No Subterranean Parking Alternative would provide 6.8 acres of publicly accessible parks/recreation facilities and open space, resulting in a recreation-to-resident ratio of 2.8 acres per 1,000 residents which is higher than the 1.2 ratio of the GPU PEIR but lower than the GPU's parkland standard of 3 acres per 1,000 residents. Thus, significant and unavoidable impacts to recreation would remain. Although the volume of impacts would be reduced by the Reduced Project with No Subterranean Parking Alternative in comparison to the proposed project, the Reduced Project with No Subterranean Parking Alternative would not eliminate the significant and unavoidable recreation impacts or the less-than-significant impacts of the proposed project. The Reduced Project with No Subterranean Parking Alternative would provide fewer residential units, retail services, and no office uses, and thus would implement the GPU South Bristol Street Focus Area objectives and many of the SCAG policies related to high-density, infill development, and improvement of the job/housing balance at a lesser extent than the proposed project, resulting in greater impacts to land use and planning.

Overall, although the magnitude of impacts would be less under the Reduced Project with No Subterranean Parking Alternative in comparison to the proposed project, the Reduced Project with No Subterranean Parking Alternative would not eliminate the significant and unavoidable impact to recreation, the less-than-significant impacts of the proposed project, or the need for mitigation.

In addition, the Reduced Project with No Subterranean Parking Alternative would not fully meet all of the project objectives. As previously discussed, though the Reduced Project with No Subterranean Parking Alternative would transform the conventional auto-oriented shopping plaza with large surface parking areas to a mixed-use development, this alternative would not maximize the opportunities as described in the project objectives as there would be fewer retail services and park space, no office uses, and no subsurface shared parking areas. The reduced commercial and removal of office uses would result in a net decrease of jobs from existing conditions that would not fully maximize the economic opportunities of the project site as encouraged by the GPU. Overall, with the exception of a few project objectives, this alternative meets most of the project objectives, but not to the same extent as the proposed project.

Table 6-3: Summary Comparison of the Impacts of the Alternatives provides, in summary format, a comparison between the level of impacts for each alternative and the proposed project. In addition, Table 6-4: Summary Comparison of the Alternatives' Ability to Meet Project Objectives provides a comparison of the ability of each of the alternatives to meet the objectives of the proposed project.

Table 6-3: Summary Comparison of the Impacts of the Alternatives

Impact Topic	GPU PEIR Impact	Project Impact	Alternative 1: No Project/ No Build Alternative	Alternative 2: Reduced Project Alternative	Alternative 3: No Subterranean Parking Alternative
Air Quality	S/U	LTS/M	Less (NI)	Less (LTS/M)	Less (LTS/M)
Cultural Resources	S/U	LTS/M	Less (NI)	Similar (LTS/M)	Less (LTS/M)
Energy	LTS	LTS	Less (NI)	Less (LTS)	Less (LTS)
Geology and Soils	LTS/M	LTS/M	Less (LTS)	Similar (LTS/M)	Less (LTS/M)
Greenhouse Gas Emissions	S/U	LTS	Similar (LTS)	Less (LTS)	Less (LTS)
Hazards and Hazardous Materials	LTS	LTS	Similar (LTS)	Similar (LTS)	Similar (LTS)
Hydrology and Water Quality	LTS	LTS	Similar (LTS)	Similar (LTS)	Similar (LTS)
Land Use and Planning	LTS	LTS	Greater (LTS)	Similar (LTS)	Similar (LTS)
Noise	S/U	LTS/M	Less (LTS)	Less (LTS/M)	Less (LTS/M)
Population and Housing	S/U	LTS	Less (NI)	Less (LTS)	Less (LTS)
Public Services	LTS	LTS	Less (NI)	Less (LTS)	Less (LTS)
Recreation	S/U	S/U*	Less (NI)	Similar (S/U*)	Less (S/U*)
Transportation	LTS	LTS	Similar (NI)	Less (LTS)	Less (LTS)
Tribal Cultural Resources	LTS/M	LTS/M	Less (NI)	Similar (LTS/M)	Less (LTS/M)
Utilities and Service Systems	LTS	LTS	Less (LTS)	Less (LTS)	Less (LTS)

Notes: LTS = Less than Significant; LTS/M = Less than Significant with Mitigation; NI = No Impact; S/U = Significant and Unavoidable
*Impacts do not increase the severity of the impacts identified in the GPU PEIR.
Source: Michael Baker International, 2024.

Table 6-4: Summary Comparison of the Alternatives' Ability to Meet Project Objectives

Objective	Proposed Project	Alternative 1: No Project/ No Build Alternative	Alternative 2: Reduced Project Alternative	Alternative 3: No Subterranean Parking Alternative
Implement the vision and objectives established in the City of Santa Ana General Plan for the South Bristol Street Focus Area as the City's southern gateway and part of the South Coast Metro area by creating opportunities to transform auto-oriented shopping plazas to walkable, bike-friendly, and transit-friendly urban villages that incorporate a mix of high-intensity office and residential living with experiential commercial uses. The following are based on the South Bristol Street Focus Area objectives: • Capitalize on the success of the South Coast Metro area; • Introduce mixed-use urban villages and encourage experiential commercial uses that are more walkable, bike friendly, and transit oriented; • Provide for mixed-use opportunities while protecting adjacent, established low density neighborhoods	Yes	No	Yes, but not to the same extent as the proposed project (no high-intensity office)	Yes, but not to the same extent as the proposed project (no high-intensity office)
Foster a neighborly environment that blends healthy living, working, shopping, and dining in a contemporary village environment.	Yes	No	Yes, but not to the same extent as the proposed project (reduced commercial and removal of office uses)	Yes, but not to the same extent as the proposed project (reduced commercial and removal of office uses)
Anchor the South Bristol Street Focus Area, as envisioned by the City, by transforming conventional auto-oriented shopping plazas with large surface parking areas to a community that maximizes opportunities for onsite open space which can be accomplished through the provision of subsurface shared parking and intensity of land use permitted by the General Plan.	Yes	No	Yes, but not to the same extent as the proposed project (reduced to one level of subterranean parking)	No
Capture Orange County's indoor-outdoor lifestyle through attention to detail in the design of buildings, selection of materials, infusion of nature in outdoor spaces, and the activities offered in the Village.	Yes	No	Yes	Yes

Table 6-4: Summary Comparison of the Alternatives' Ability to Meet Project Objectives

Objective	Proposed Project	Alternative 1: No Project/ No Build Alternative	Alternative 2: Reduced Project Alternative	Alternative 3: No Subterranean Parking Alternative
Builds on the foundation of dynamic areas through new experiences in food, fitness, and artisan retail.	Yes	No	Yes, but not to the same extent as the proposed project (fewer retail services may not include food, fitness, or artisan retail)	Yes, but not to the same extent as the proposed project (fewer retail services)
Complements the successful South Coast Metro area with a diversity of new housing in a jobs-rich environment.	Yes	No	Yes, but not to the same extent as the proposed project (would result in a net decrease of jobs from existing)	Yes, but not to the same extent as the proposed project (would result in a net decrease of jobs from existing)
Attracts the innovative and start-up culture of Orange County and provides thoughtfully designed spaces to create and showcase new offerings.	Yes	No	Yes, but not to the same extent as the proposed project (reduced commercial and removal of office uses)	Yes, but not to the same extent as the proposed project (reduced commercial and removal of office uses)
Complements and does not compete with the emerging business environment of Downtown Santa Ana.	Yes	No	Yes	Yes
Allow for the flexible redevelopment of the underutilized Project site to provide a balanced mix of residential and commercial uses in the South Bristol Street Focus Area that integrate into the existing urban systems and provide a safe and attractive environment for living and working, as encouraged by the GPU.	Yes	No	Yes, but not to the same extent as the proposed project (reduced commercial and removal of office uses)	Yes, but not to the same extent as the proposed project (reduced residential/commercial and removal of office uses)

Table 6-4: Summary Comparison of the Alternatives' Ability to Meet Project Objectives

Objective	Proposed Project	Alternative 1: No Project/ No Build Alternative	Alternative 2: Reduced Project Alternative	Alternative 3: No Subterranean Parking Alternative
Develop high quality residential spaces that reflect modern lifestyles, while responding to the vision of the GPU to help bring higher density housing into a jobs-rich area of the City planned for growth, to facilitate balancing the City's jobs-housing ratio.	Yes	No	Yes, but not to the same extent as the proposed project (reduced commercial and removal of office uses)	Yes, but not to the same extent as the proposed project (reduced residential/commercial and removal of office uses)
Provide a positive contribution to the local economy through new capital investment, attraction of economic activity, and the expansion of the tax base.	Yes	No	Yes, but not to the same extent as the proposed project (reduced commercial and removal of office uses)	Yes, but not to the same extent as the proposed project (reduced commercial and removal of office uses)
Enhance alternative transportation activity by creating a walkable and bikeable mixed-use development that links with existing facilities and transit services to encourage non-automotive travel within the Specific Plan area and the local community.	Yes	No	Yes	Yes
Provide a project that contributes to the creation of a vibrant urban core for the City by providing engaging and attractive community amenities, recreational and open space areas, and gathering spaces that serve both residents of the project and the surrounding community.	Yes	No	Yes	Yes
Create new open space and community-serving recreational amenities in an identified park-deficient area.	Yes	No	Yes	Yes

Source: Michael Baker International, 2024.

Project Address
Santa Ana, CA 92704

Site Information

Project

Existing Zoning:	Specific Development Plan Number 48 (SD-48)
General Plan Land Use:	District Center-High (DC-5); Mixed-Use
Building Type:	Type 3A-Modified, Type I Construction
Fire Protection:	Fully Sprinklered
Total Site Area:	750,450 SF (17.2 Acres)

Program Areas

Residential Area:	1,433 Units 1,671,000 SF
Senior Living Area:	150 Units 179,000 SF
Retail + F&B Area:	50,000 SF
Total Floor Area:	**1,900,000 SF**
FAR:	**2.53**

Building Height

Residential Tower:	315' / 25 Stories
Senior Living Building:	85' / 8 Stories
Residential Low-Rise:	85' / 8 Stories
Retail Village:	35' / 1-2 Stories

Maximum Excavation Depth: -14' All Parcels (1 Level)

Parking Calculations

Residential
Parking Required 1,433 Units (1.4/Unit) = 2,006 Stalls

Senior Living
Parking Required 150 Units (0.6/1,000) = 90 Stalls

Retail / F&B
Parking Required 50,000 SF (4/1,000) = 200 Stalls

Total Stalls Required **= 2,296 Stalls**

Bike Parking Required
Short Term = 18 Bikes
Long Term = 120 Bikes

Extents of Residential Above Podium
Extents of Senior Living Above Podium
Extents of Lower Level Podium Retail
Extents of Retail/F&B Above Podium
Extents of Podium Terraces
Public Park/Plaza at Grade
Property Line

PROPOSED SITE

Michael Baker INTERNATIONAL

NOT TO SCALE

THE VILLAGE SANTA ANA SPECIFIC PLAN PROJECT

Reduced Project Alternative Site Plan

Figure 6-1

Project Address
Santa Ana, CA 92704

Site Information

Project

Existing Zoning:	Specific Development Plan Number 48 (SD-48)
General Plan Land Use:	District Center-High (DC-5); Mixed-Use
Building Type:	Type 3A-Modified, Type I Construction
Fire Protection:	Fully Sprinklered
Total Site Area:	750,450 SF (17.2 Acres)

Program Areas

Residential Area:	1,000 Units 1,190,130 SF
Retail + F&B Area:	25,000 SF
Total Floor Area:	**1,215,130 SF**
FAR: 1.62	

Building Height

Residential Tower:	315' / 25 Stories
Parking Garage:	40' / 3 Story
Residential Low-Rise:	85' / 8 Stories
Retail Village:	35' / 1-2 Stories

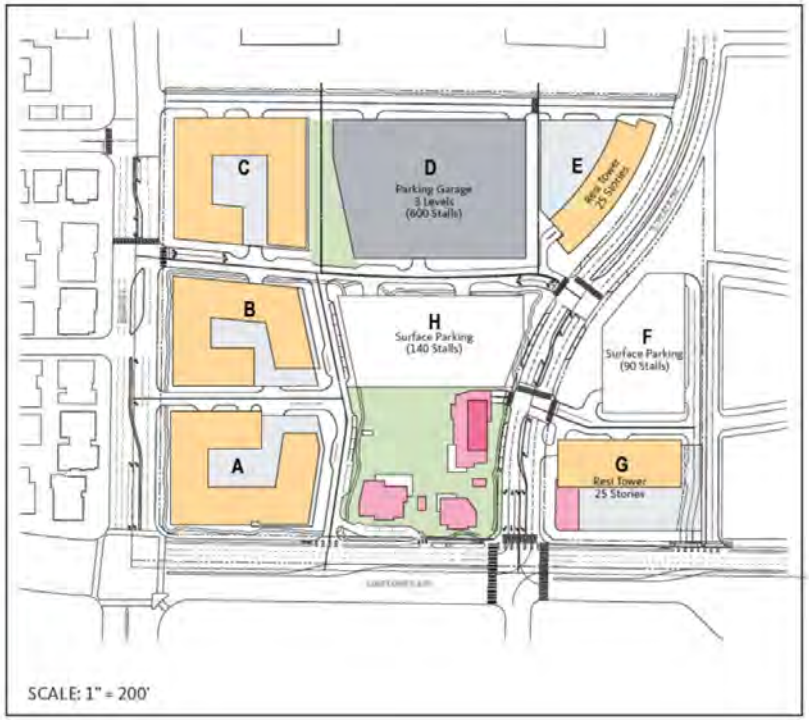
Maximum Excavation Depth: 0' (No Excavation)

Parking Calculations

Residential		
Parking Required	1,000 Units (1.4/Unit)	= 1,400 Stalls
Retail / F&B		
Parking Required	25,000 SF (4/1,000)	= 100 Stalls
Total Stalls Required		**= 1,500 Stalls**
Bike Parking Required		
Short Term		= 12 Bikes
Long Term		= 84 Bikes

Extents of Residential Above Podium
Extents of Lower Level Podium Retail
Extents of Retail/F&B Above Podium
Extents of Podium Terraces
Parking Garage
Public Park/Plaza at Grade
Property Line

PROPOSED SITE



Michael Baker INTERNATIONAL

NOT TO SCALE

THE VILLAGE SANTA ANA SPECIFIC PLAN PROJECT

Reduced Project with No Subterranean Parking Alternative Site Plan

Figure 6-2

CHAPTER 7
EIR PREPARERS

7.1 LEAD AGENCY

City of Santa Ana

Ali Pezeshkpour	Planning Manager
Jerry Guevara	Senior Planner

7.2 EIR AUTHORS

Michael Baker International, Inc.

John Bellas	Project Director
Kathalyn Tung	Project Manager
Jennifer Wu	Co-Deputy Project Manager
Jessie Kang	Co-Deputy Project Manager
Vicky Rosen	Environmental Planner
Frankie Tong	Environmental Planner
Madonna Marcelo	Principal Environmental Planner
Pei-Ming Chou	Principal Environmental Planner
Cristina Lowery	Senior Environmental Planner
Allie Beauregard	Environmental Planner
Hanna Wang	Environmental Planner
Jeanette Cappiello	Graphics Specialist
Eddie Torres	Senior Air Quality/Noise Specialist
Zhe Chen	Senior Air Quality/GHG Specialist
Darshan Shivaiah	Air Quality and Noise Specialist
Dennis Dinh	Noise Specialist
Marc Beherec	Principal Archaeologist
Michelle Anderson	Architectural Historian
Max van Rensselaer	Archaeologist
Peter Kloess	Paleontologist
Kristen Bogue	Senior Aesthetics Specialist
Alexander Maher	Senior Water Supply Specialist
Selina Ni	Water Supply Specialist

7.3 TECHNICAL CONSULTANTS

Akel Engineering Group, Inc. (Hydraulic Model Evaluation)

NMG Geotechnical, Inc. (Geotechnical Feasibility Study)

Linscott, Law, and Greenspan (Vehicle Miles Traveled [VMT] Screening)

Tait and Associates, Inc. (Preliminary Water Quality Management Plan)

TRC Environmental Corporation, Inc. (Phase I Environmental Site Assessment)

7.4 PEER REVIEW

Ascent Environmental, Inc.

Chad Beckstrom	Senior Environmental Director
Tanya Jones	Senior Environmental Planner
Claudia Watts	Senior Environmental Planner
Roberto Mora	Archaeologist
Matthew McFalls	Senior Air Quality and Climate Change Manager
Dimitri Antoniou	Senior Noise Manager
Kelley Kelso	Environmental Scientist
Jazmin Amini	Transportation Planner

CHAPTER 8
REFERENCES

1 EXECUTIVE SUMMARY

No references were used.

2 INTRODUCTION

No references were used.

3 PROJECT DESCRIPTION

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4 ENVIRONMENTAL IMPACTS ANALYSIS

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7 EIR PREPARERS AND PERSONS CONSULTED

No references were used.