

RELATED BRISTOL SPECIFIC PLAN PROJECT

SCH NO. 2020029087

prepared for
City of Santa Ana
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Santa Ana, CA 92702

prepared with the assistance of
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Draft Supplemental Environmental Impact Report

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DRAFT
ENVIRONMENTAL IMPACT REPORT
RELATED BRISTOL SPECIFIC PLAN PROJECT
SANTA ANA, CALIFORNIA
STATE CLEARINGHOUSE NO. 2020029087

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ac	acre
ACMs	asbestos-containing materials
AELUP	Airport Environs Land Use Plan
AF	acre-feet
AFY	acre-feet per year
ALUC	Airport Land Use Commission
A-P Act	Alquist-Priolo Earthquake Fault Act
APN	Assessor Parcel Numbers
ARMR	Archaeological Resource Management Reports
BACT	best available control technology
Basin	South Coast Air Basin
bgs	below ground surface
BMP	Best Management Practice
BPP	Basin Production Percentage
C-2	General Commercial
C4	Shopping Center
CAA	Clean Air Act of 1970
CAAA	CAA Amendments of 1990
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
Cal/OSHA	California Occupational Safety and Health Administration
CalARP	California Accidental Release Prevention Program
CalEMA	California Emergency Management Agency
CalEPA	California Environmental Protection Agency
CALGreen	California Energy Code
CalRecycle	California Department of Resources Recycling and Recovery
CalTrans	California Department of Transportation
CAP	Climate Action Plan of 2013
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CC&Rs	Codes Covenants and Restrictions
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDBG	Community Development Block Grants
CDE	California Department of Education
CEC	California Energy Commission
CFR	Code of Federal Regulations
CH ₄	methane
CHHSLs	California Human Health Screening Levels
CHRIS	California Historical Resources Inventory System
CNEL	community noise equivalent level
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CPTED	Crime Prevention through Environmental Design
CPUC	California Public Utilities Commission
CR	Commercial Residential

CREQA	California Environmental Quality Act
CRHR	California Register of Historical Resources
CTP	clean truck program
CUPA	Certified Unified Program Agency
cy	cubic yards
DAMP	Orange County Drainage Area Management Plan
dB	decibel
dBA	A-weighted decibels
DC-5	District Center-High
DHS	California Department of Health Services
DOC	California Department of Conservation
DOF	California Department of Finance
DPM	diesel particulate matter
DPR	Department of Parks and Recreation
DTSC	Department of Toxic Substances Control
DTSC SLs	Department of Substances Control Screening Levels
du	dwelling unit
EIR	Environmental Impact Report
ESLs	Environmental Screening Levels
EV	electric vehicle
FAA	Federal Aviation Administration
FAR	Floor Area Ratio
FEMA	Federal Emergency Management Agency
FFVs	flexible fuel vehicles
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Maps
FTA	Federal Transit Administration
GAP	Green Acres Project
GHG	greenhouse gas
GPCD	gallons per capita per day
gpd	gallons per day
gpm	gallons per minute
GPU FEIR	City of Santa Ana General Plan Update Final Environmental Impact Report
gsf	gross square feet
GW	gigawatt
GWRS	groundwater replenishment system
H ₂ S	Hydrogen Sulfide
HABS	Historic American Buildings Survey
Handbook	Air Quality and Land Use Handbook: A Community Health Perspective (CARB 2005)
HAPs	hazardous air pollutants
HCD	Housing Community Development
HFCs	hydrofluorocarbons
HHDT	heavy duty trucks
HMBP	Hazardous Materials Business Plan
HMTA	Hazardous Material Transportation Act
HQTAs	high quality transit areas
HRA	health risk assessment
HSP	Health and Safety Plan
I	Interstate
IIPP	Injury and Illness Prevention Program
ITE	Institute of Transportation Engineers
kWh	kilowatt hours

LEED	Leadership in Energy and Environmental Design
L_{eq}	equivalent sound level
LID	Low Impact Development
LOS	level of service
LST	Local Significance Thresholds
LUST	leaking underground storage tank
m^3	cubic meter
MACT	maximum achievable control technology
MCL	maximum contaminant level
MDV	medium duty vehicle
MEIR	maximally exposed individual resident
MEP	maximum extent practicable
MERV	Minimum Efficiency Reporting Value
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Program
MMT	million metric tons
mpg	miles per gallon
MPO	Metropolitan Planning Organization
MR-15	Medium Density Residential
MS4	Municipal Separate Storm Sewer System
MSDS	material safety data sheets
msl	mean sea level
MT CO _{2e}	metric tons of carbon dioxide equivalent
MTBE	methyl tert-butyl ether
MWD	Metropolitan Water District of Southern California
MWELO	Model Water Efficient Landscape Ordinance
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NALs	numeric action levels
National Register	National Register of Historic Places
NESHAP	national emissions standards for hazardous air pollutants
NH ₃	ammonia
NHPA	National Historic Preservation Act of 1966
NO ₂	nitrogen dioxide
NOI	Notice of Intent
NOP	Notice of Preparation
NO _x	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
O ₃	ozone
OC Basin	Orange County Groundwater Basin
OC COG	Orange County Council of Government
OCFCD	Orange County Flood Control District
OCSD	Orange County Sanitation District
OCTA	Orange County Transportation Authority
OCWD	Orange County Water District
OSHA	Occupational Safety and Health Administration
PACE	Property Assessed Clean Energy
Pb	Lead
PDC	Planned Development Commercial
PFCs	perfluorocarbons
PHEVs	plug-in hybrid electric vehicles
PM ₁₀	Particulate Matter Less Than 10 Microns

PM _{2.5}	Particulate Matter Less Than 2.5 Microns
PPP	Plans, Programs, and Policies
PRC	Public Resources Code
PV	photovoltaic
R1	Single-Family Residence
R4	Suburban Apartment
RA	replenishment assessment
RCP	reinforced concrete pipe
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental conditions
RHNA	Regional Housing Needs Assessment
RMS	root mean square
ROG	reactive organic gas
RPS	Renewable Portfolio Standards
RSLs	Regional Screening Levels
RSPA	Research and Special Programs Administration
RTP/SCS	Regional Transportation Plan and Sustainable Communities Strategy
RWQCB	Santa Ana Regional Water Quality Control Board
SAPD	Santa Ana Police Department
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 Center
SCE	Southern California Edison
SCH	State Clearinghouse
SCS	Sustainable Communities Strategy
SD48	Special Development 48
SF	square feet
SF ₆	sulfur hexafluoride
SJVAPD	San Joaquin Valley Unified Air Pollution Control District
SMP	soil management plan
SNA	John Wayne Airport
SO ₂	sulfur dioxide
SO ₃	sulfur trioxide
SO ₄₋₂	Sulfates
SoCalGas	Southern California Gas Company
SP	service population
SP**	Specific Plan
SR	State Route
SRA	source receptor area
SSMP	Sewer System Management Plan
SSOs	Sanitary Sewer Overflows
SWAPE	Soil Water Air Protection Enterprise
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resource Control Board
TACs	toxic air contaminants
TAZ	Traffic Analysis Zone
T-BACTs	best available control technologies for toxics
TCR	tribal cultural resources
TDM	transportation demand management
TDMLs	total daily maximum loads
TIA	Traffic Impact Analysis

TOD	Transit-Oriented-Development
TPA	Transit Priority Area
TPH-d	total petroleum hydrocarbons – diesel
tpy	tons per year
TTM	Tentative Tract Map
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	underground storage tank
UWMP	Urban Water Management Plan
VdB	velocity levels expressed in decibel notation
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	vehicle miles traveled
VOC	volatile organic compound
WDRs	waste discharge requirements
WQMP	Water Quality Management Plan
WSA	water supply assessment
ZEV	zero emissions vehicle
µg	microgram

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1. Executive Summary

This Draft Supplemental Environmental Impact Report (EIR) evaluates the environmental effects that may result from the construction and operation of the proposed Related Bristol Specific Plan Project (proposed Project). 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 45 days in accordance with Section 15087 and Section 15105 of the CEQA Guidelines. During the 45-day review period, the Draft Supplemental EIR will be available for public review at the City's website: (<https://www.santa-ana.org/related-california-bristol-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

City of Santa Ana Public Library
26 Civic Center Plaza
Santa Ana, CA 92701

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 41.13-gross-acre Project site is located within the southern portion of the City of Santa Ana at 3600, 3606, 3732, 3701, 3719, 3810, 3814, 3820, and 3900 South Bristol Street. The Project site includes the following nine parcels: (Assessor Parcel Numbers [APNs]) 412-131-12, 412-131-13, 412-131-14, 412-131-16, 412-131-17, 412-131-22, 412-131-24, 412-131-25, and 412-131-26. The Project site is bordered by MacArthur Boulevard to the north, Sunflower Avenue to the south, and Bristol Street to the east. The west side of the site is bordered by South Plaza Drive between MacArthur Boulevard and Callen's Common and by existing development between Callen's Common and Sunflower Avenue to the south. Regional access to the Project site is provided from Interstate 405 (I-405) from the Bristol Street exit, and from State Route 55 (SR-55) from the MacArthur Boulevard exit. Access to the Project site is provided from Bristol Street, Callen's Common, MacArthur Boulevard, Sunflower Avenue, and South Plaza Drive.

1.2 PROJECT BACKGROUND

The City of Santa Ana (City) General Plan Update (GPU) was adopted, and the GPU FEIR was certified, in April 2022 (State Clearinghouse Number 2020029087); the GPU 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. The GPU Land Use Element guides development (e.g., infill development, redevelopment, use and revitalization/restoration) by designating land uses. The GPU FEIR 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 GPU 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 FEIR 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) and CEQA Guidelines Section 15162, which states that no subsequent EIR shall be prepared unless one or more of the following conditions is present:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration 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 or Negative Declaration 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 and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:
 - a. The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
 - 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 project proponents decline to adopt the mitigation measure or alternative.

Also, CEQA Guidelines Section 15163 states that the Lead 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 3.0, *Project Description*, the proposed Project includes a phased redevelopment of the Project site, consistent with the General Plan District Center-High (DC-5) land use designation and the South Bristol Street Focus Area that may involve new significant environmental effects or a substantial increase in the previously identified effects. 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 FEIR; and include Project specific mitigation measures to make the GPU FEIR adequate for the proposed Project, pursuant to CEQA.

1.4 PROJECT DESCRIPTION SUMMARY

The proposed Project would demolish the 16 existing buildings and remove all existing improvements, landscaping, and pavement. The proposed Project would then construct a 3-phase mixed-use development that would include up to 3,750 multi-family residential units, up to 200 units of senior living/continuum of care use, a 250-room hotel, and up to 350,000 square feet (SF) of commercial uses. The proposed development within each phase is listed in Table 1-1.

Table 1-1: Project Summary

Use	Phase 1	Phase 2	Phase 3	Total
Residential (units)	1,375	856	1,519	3,750
Commercial (SF)	250,000	65,000	35,000	350,000
Hospitality (rooms)	250	--	--	250
Senior/Continuum of Care (units)	200	--	--	200

The proposed multi-family residential units would be provided as for-rent multi-family uses. Residences would be in vertical mixed-use structures which could include residential on top of commercial uses and would include recreation areas, leasing offices, fitness rooms, pools/spas, business centers, etc.

Open Space, Recreation, and Amenities

The proposed Project would provide open space and recreation amenities for residents that would include approximately 13.1 acres of open space plazas, pedestrian paseos, and parks. Pursuant to the proposed Specific Plan, private and common open space would be provided at a ratio of 200 SF per unit.¹ These spaces would allow for seating areas, walkways, outdoor dining, open play areas, and a private recreation facility for residents.

Site Access

Vehicular access to the Project site would be provided via ingress/egress to and from Bristol Street, South Plaza Drive, MacArthur Boulevard, and Sunflower Avenue. The proposed Project would also include the construction of Bristol Paseo, the primary north/south street through the site. Access to the Bristol Paseo would be provided through the construction of a new intersection on MacArthur Boulevard, as well as the construction of a new driveway that would be realigned approximately 110 feet to the east of the existing driveway. The construction of the new driveway on Sunflower Avenue would include restriping and modification of the existing median to provide an eastbound left-turn lane. The proposed Project would install a five-phase traffic signal, subject to the improvements/realignment of the South Coast Plaza driveway. In addition, the

¹ Private and Common Open Space amounts may vary; however, a total of 200 SF of combined private/common open space per unit shall be provided, measured across the overall Specific Plan area. This private and common open space may be a combination of passive and active open space. Common open space may include backbone parks, parkways, programmable roads, greenways, courtyards, pool/spa decks, roof decks, dog parks, fitness rooms, business centers, parkways, landscaped yards. Private open space of a minimum of 50 SF, which may include patios or balconies of any orientation.

proposed Project would install a three-phase traffic signal on South Plaza Drive at Callen's Common. The proposed Project would install a signalized driveway on Bristol Street between Callen's Common and Sunflower Avenue. The proposed Project would modify the northbound approach on Bristol Street to provide a second left turn lane and remove the existing median. The proposed Project would remove the existing median on the southbound approach and install a five-phase traffic signal. Drop-off and loading areas would be provided on Callen's Common and Sunflower Avenue.

Parking spaces would be provided through subterranean and above-grade structures. The proposed Project also includes limited on-street parking. The site design would include pedestrian/bicycle paths to provide for non-vehicular onsite circulation and connection to existing sidewalks and bike lanes adjacent to the Project site.

Water Infrastructure

The proposed Project would redevelop the onsite infrastructure to serve the proposed multi-family residential and commercial uses. The proposed Project would install new onsite water infrastructure that would connect to water pipelines that are adjacent to the site. The onsite improvements include construction of a 12-inch water main in Bristol Paseo and replacement of the existing 12-inch water line in Callen's Common with a new 12-inch main and connection of the new onsite infrastructure to the replacement line. The proposed Project also includes offsite infrastructure improvements that would replace a portion of the existing 12-inch water main in South Plaza Drive from MacArthur Boulevard to Sunflower Avenue with a 12-inch water main. The 12-inch water mains in Sunflower Avenue from South Plaza Drive to Bristol Street and Bristol Street from MacArthur Boulevard to Sunflower Avenue would be replaced "in-kind" with new 12-inch water mains.

Wastewater Infrastructure

Wastewater from the Project site currently discharges into an existing City-owned 8-inch sewer line at Sunflower Avenue and Bristol Street, which drains directly into the 78-inch Orange County Sanitation District (OCSD) sewer line in Sunflower Avenue. The proposed Project would install a new onsite sewer system that would connect directly to the 78-inch OCSD sewer line in Sunflower Avenue.

Drainage Infrastructure

The existing topography of the Project site is relatively flat, gently sloping towards the west. Currently, the site is 90 percent impervious. A storm drain system would be installed within the onsite roadways to convey the stormwater to proposed biotreatment infrastructure (Modular Wetlands) on the site and then to the existing City storm drain systems in MacArthur Boulevard, South Plaza Drive, Sunflower Avenue, and Bristol Street. In addition, the proposed Project would upgrade the existing 54-inch reinforced concrete pipe (RCP) in Sunflower Avenue to a 72-inch RCP for 2,230 linear feet and the existing 42-inch RCP in South Plaza Drive to a 60-inch RCP for 320 linear feet.

General Plan Land Use and Zoning

The Project site has an existing General Plan land use designation of District Center-High (DC-5) and a zoning designation of General Commercial (C-2) and Commercial Residential (CR). The proposed Project is requesting the approval of the Related Bristol Specific Plan to replace the existing zoning, which would define the allowable uses and development standards within its boundaries.

1.5 PROJECT OBJECTIVES

The Project objectives have been identified in order to aid decision makers in their review of the proposed Project and its associated environmental impacts.

The proposed Related Bristol Specific Plan Project objectives include the following:

- Implement the vision and objectives established in the City of Santa Ana General Plan for the South Bristol Street Focus Area to create a southern gateway to the City. 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;
 - Realize an intense, multi-story presence along the Bristol Street corridor; and
 - Provide for mixed-use opportunities while protecting adjacent, established low density neighborhoods.
- Allow for the flexible redevelopment of the underutilized Project site to provide a balanced mix of residential, retail, and hospitality 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.
- Transform an auto-oriented shopping plaza with large surface parking areas to a community which 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.
- Develop high quality residential spaces that reflect modern lifestyles, while responding to the need for additional housing at a higher density in an area of the City planned for growth.
- Develop a project with a mix of land uses that stimulate economic activity, commerce, and new housing opportunities in the South Bristol Street Focus Area.
- Have a positive contribution to the local economy through new capital investment, the creation of new jobs, and the expansion of the tax base.
- Create a walkable mixed-use development to encourage and enhance pedestrian activity within the Specific Plan area and the local community.
- Enhance non-vehicular activity by providing onsite and offsite pedestrian and bicycle facilities that link with existing facilities and transit services.
- Improve existing infrastructure to support the Related Bristol Specific Plan consistent with the General Plan conditions.
- Provide a project that contributes to the creation of a vibrant urban core for the City and takes advantage of the site's location within the South Coast Metro area. Provide a project that contains vibrant and attractive community amenities, recreational and open space areas, and gathering spaces that are directly accessible to residents and the community.
- Provide 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 MacArthur Boulevard, Bristol Street, Sunflower Avenue and South Plaza Drive.

1.6 SUPPLEMENTAL EIR LEVEL OF ANALYSIS

The GPU FEIR (State Clearinghouse Number 2020029087) evaluated the update to the City's GPU, including the Project site within the South Bristol Street Focus Area at a DC-5 land use designation at a programmatic

level. Project-specific developments were not evaluated within the GPU FEIR. 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 FEIR adequate for the proposed Project.

1.7 SUMMARY OF ALTERNATIVES

Chapter 6.0, *Alternatives*, of this Supplemental EIR analyzes a range of reasonable alternatives to the proposed Project. The alternatives that are analyzed in detail in Chapter 6.0 are summarized below.

Alternative 1: No Project/No Build Alternative. Under this alternative, the proposed Project would not be developed, and no development would occur. The existing 16 commercial buildings would remain. In accordance with the 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. Section 15126.6(e)(3)(B) of the CEQA Guidelines 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 CEQA Guidelines Section 15126.6(e) for evaluation of a no project alternative.

As detailed in Chapter 6.0, *Alternatives*, the No Project/No Build Alternative would avoid the significant and unavoidable air quality and parks and recreation impacts that would occur from the proposed Project. Additionally, operational impacts would be reduced and the mitigation measures that are detailed in Chapter 5.0, which include measures related to air quality, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, noise, and tribal cultural resources would not be required. However, the benefits of the proposed Project would also not be realized, such as implementation of the General Plan DC-5 land use and South Bristol Street Focus Area objectives, improvements to offsite bicycle lanes, sidewalks, and stormwater infrastructure, CALGreen infrastructure improvements to storm water quality, and a reduction of drainage from the area, removal of potentially contaminated soils, provision of housing within TPAs and High Quality Transit Areas, improvements to the jobs/housing balance, and the potential to reduce vehicle miles traveled. Overall, the No Project/No Build Alternative would not generate the significant impacts of the proposed Project and would not require implementation of mitigation measures; however, this alternative would not realize the benefits of the proposed Project. In addition, the No Project/No Build Alternative would not meet any of the Project Objectives.

Alternative 2: Reduced Project Alternative. Under this alternative, a reduction in commercial square footage would be built. Specifically, this alternative would consist of a reduction of 100,000 SF of commercial retail and elimination of the 250-room hotel. This alternative would develop and operate 3,750 multi-family residential units, a 200-room senior housing facility, and 250,000 SF of retail and restaurant commercial uses.

The reduction would result in the construction of 1,375 units, 200 senior housing units, and 150,000 SF of commercial uses in Phase 1; including an administrative Police Department substation to be located within the commercial use area. Approximately 856 units and 65,000 SF of commercial uses would be constructed in Phase 2; and 1,519 units and 35,000 SF of commercial uses would be constructed in Phase 3.

To support the reduced Project under this alternative, the same ratio of parking spaces would be provided as proposed under the proposed Project. Under the Reduced Project Alternative, certain offsite improvements (including storm drain upgrades, restriping, and signal installation) are assumed, consistent with the proposed Project. In addition, the same amount of recreational facilities and common open space would be provided as the proposed Project.

Like the proposed Project, this alternative would require a Zoning Map Amendment to amend the existing zoning of General Commercial (C-2) and Commercial Residential (CR) to Related Bristol Specific Plan District.

As detailed in Chapter 6.0, *Alternatives*, the Reduced Project Alternative would reduce operational air quality impacts at Project buildout to a less than significant level. However, significant and unavoidable impacts related to construction air quality emissions and the proposed Project's contribution to cumulative parkland deficiencies would continue to occur from implementation of this alternative. Additionally, the mitigation required for implementation of the proposed Project would continue to be required for the Reduced Project Alternative to reduce impacts related to construction air quality, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, noise, and tribal cultural resources to a less than significant level. Overall, although the Reduced Project Alternative's impacts would be less than the impacts of the proposed Project, the Reduced Project Alternative would not eliminate all of the significant and unavoidable impacts of the proposed Project or eliminate the need for mitigation. The Reduced Project Alternative would also result in a reduced beneficial impact, providing less commercial space on the Project site, which would in turn provide fewer employment opportunities. Furthermore, the Reduced Project Alternative would meet the Project Objectives, but not to the same extent as the proposed Project.

Alternative 3: Buildout of the Existing Zoning Alternative. Under this alternative, no Zoning Map Amendment would occur, and the Project site would be built out according to the existing zoning designations, as shown on Figure 3-5 in Chapter 3.0, *Project Description*. Therefore, this alternative would include development of the 23.96-acre area north of Callen's Common with only commercial uses pursuant to the C-2 zoning designation, which would result in approximately 782,774 SF at the maximum FAR of 0.75 with a building height of 35 feet. This alternative would provide surface parking and would not develop Bristol Central Park in the northern portion of the site.

Also, the 17.17-acre area south of Callen's Common would be redeveloped with commercial uses and mixed-uses pursuant to the CR zoning designation, which would result in approximately 250,000 SF of ground-floor commercial uses and office space, approximately 250 hotel rooms, approximately 200 senior care units, and 1,375 multi-family units would be developed to a maximum FAR of 5.0. Buildings at the northwestern corner of the CR zoned area would be a maximum of 50 feet, buildings at 200 feet from adjacent residential uses would be a maximum height of 100 feet. The buildings toward the southeast corner of the site would be a maximum of 25 stories. Parking within areas south of Callen's Common would be underground and open space within this area would be consistent with the proposed Project.

Overall, Buildout of the Existing Zoning Alternative would develop the site with 682,774 SF more commercial space than proposed by the Project, totaling 1,032,774 SF of commercial uses (including an administrative Police Department substation), the same amount of hotel rooms and senior care units as the proposed Project, and 2,375 fewer residential units for a total of 1,375 multi-family units.

The Buildout of the Existing Zoning Alternative would increase the proposed Project's significant and unavoidable operational air quality impact. As such, significant and unavoidable impacts related to air quality and parks and recreation would continue to occur from implementation of this alternative. Additionally, the mitigation required air quality, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, noise, and tribal cultural resources would continue to be required for the Buildout of the Existing Zoning Alternative.

The Buildout of the Existing Zoning Alternative would also result in a reduced beneficial impact, as it would not provide as many multi-family units on the Project site; and therefore, would not improve the jobs-housing balance. Further, the Buildout of the Existing Zoning Alternative would meet the majority of the Project objectives, but not to the same extent as the proposed Project.

1.8 SUMMARY OF IMPACTS

Table 1-2 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 standard conditions of approval are identified, and mitigation measures are provided for all potentially significant impacts.

Table 1-2: Summary of Impacts, Mitigation Measures, and Level of Significance

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
5.1 Air Quality				
Impact AQ-1: The Project would result in a conflict with or obstruct implementation of the applicable air quality plan.	PPP AQ-1: Rule 403. The following measures shall be incorporated into construction plans and specifications as implementation of Rule 403:	Potentially significant	GPU FEIR Mitigation Measures 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:	Significant and unavoidable
Impact AQ-2: The Project would result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard.	<ul style="list-style-type: none"> • All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 mph per SCAQMD guidelines in order to limit fugitive dust emissions. • The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the Project are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day. • The contractor shall ensure that traffic speeds on unpaved roads and Project site areas are reduced to 15 miles per hour or less. 	Potentially significant	<ul style="list-style-type: none"> • Require fugitive-dust control measures that exceed South Coast AQMD’s Rule 403, such as: 	Significant and unavoidable

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
	<p>PPP AQ-2: Rule 1113. The following measure shall be incorporated into construction plans and specifications as implementation of Rule 1113. The Project shall only use “Low-Volatile Organic Compounds (VOC)” paints (no more than 50 gram/liter of VOC) consistent with SCAQMD Rule 1113.</p> <p>PPP AQ-3: Rule 445. The following measure shall be incorporated into construction plans and specifications as implementation of Rule 445. Wood burning stoves and fireplaces shall not be included or used in the new development.</p> <p>PPP AQ-4: CALGreen Building Standards MERV 13 Filters. Indoor air quality within mechanically ventilated buildings shall comply with Section 5.504.5.3 (Filters) of the California Green Building Standards Code Part 11 that requires utilization of at least a Minimum Efficiency Reporting Value (MERV) of 13 air filtration systems. The Code requires MERV 13 filters to be installed prior to occupancy and replaced and/or maintained as directed by the manufacturer.</p>		<ul style="list-style-type: none"> 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 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 onsite 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. 	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			<p>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:</p> <ul style="list-style-type: none"> • 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 	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			<p>energy storage and combined heat and power in appropriate applications to optimize renewable energy generation systems and avoid peak energy use.</p> <ul style="list-style-type: none"> • 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. 	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			<ul style="list-style-type: none"> • 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. <p>Project Specific Mitigation Measures MM AQ-1: Construction Exhaust and Dust Control. Prior to issuance of Phase 1, Phase 2, and Phase 3 grading permits, the Project Applicant shall prepare and submit documentation to the City of Santa Ana Building and Safety Division that demonstrates the following:</p> <ul style="list-style-type: none"> • Require fugitive-dust control measures that exceed SCAQMD Rule 403 requirements: <ul style="list-style-type: none"> ○ Apply water at least three times daily to active soil-disturbing activities. ○ Tarp and/or maintain a minimum of 24 inches of freeboard on trucks hauling 	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			<p>dirt, sand, soil, or other loose materials.</p> <ul style="list-style-type: none"> ○ Limit onsite 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. <ul style="list-style-type: none"> ● All off-road diesel-powered construction equipment greater than 50 horsepower meets California Air Resources Board Tier 4 Final off-road emissions standards. Requirements for Tier 4 Final equipment shall be included in applicable bid documents and successful contractor(s) must demonstrate the ability to supply such equipment. A copy of each equipment’s Best Available Control Technology (BACT) documentation (certified tier specification or model year specification), and CARB or SCAQMD operating permit (if applicable) shall be provided to the City at the time of mobilization of each applicable unit of equipment. ● Construction equipment shall be properly maintained according to manufacturer specifications. All equipment maintenance records and data sheets, including design specifications and emission control tier classifications shall be kept onsite and furnished to the lead agency or other regulators upon request. ● All construction equipment and delivery vehicles shall be turned off when not in use, or limit onsite idling 	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			<p>for no more than 5 minutes in any 1 hour.</p> <ul style="list-style-type: none"> • Onsite electrical hook ups to a power grid shall be provided for electric construction tools including saws, drills, and compressors, where feasible, to reduce the need for diesel powered electric generators. Construction contracts shall require all off-road equipment with a power rating below 19 kilowatts (25 horsepower) (e.g., plate compactors, pressure washers, etc.) used during project construction be battery powered. • Prepare a construction traffic control plan detailing the locations of equipment staging areas, material stockpiles, proposed road closures, and hours of construction operations, and designing the plan to minimize impacts to roads frequented by passenger cars, pedestrians, bicyclists, and other non-truck traffic. • Provide information on transit and ridesharing programs and services to construction employees. <p>MM AQ-2: Low VOC Paint (Construction). Construction plans, specifications, and permitting shall require that during construction, the Project shall use “Super-Compliant” low VOC paints which have been reformulated to exceed the regulatory VOC limits (i.e., have a lower VOC content than what is required) put forth by SCAQMD’s Rule 1113 for all architectural coatings. Super-Compliant low VOC paints shall be no more than 10g/L of VOC. Prior to issuance</p>	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			<p>of building permits, the City of Santa Ana shall confirm that plans include the following specifications:</p> <ul style="list-style-type: none"> • All architectural coatings will be Super-Compliant low VOC paints. • Recycle leftover paint. Take any leftover paint to a household hazardous waste center; do not mix leftover water-based and oil-based paints. • Keep lids closed on all paint containers when not in use to prevent VOC emissions and excessive odors. • For water-based paints, clean up with water only. Whenever possible, do not rinse the cleanup water down the drain or pour it directly into the ground or the storm drain. Set aside the can of cleanup water and take it to the hazardous waste center (www.cleanup.org). • Use compliant low-VOC cleaning solvents to clean paint application equipment. • Keep all paint- and solvent-laden rags in sealed containers to prevent VOC emissions. • Contractors shall construct/build with materials that do not require painting and use pre-painted construction materials to the extent practicable. • Use high-pressure/low-volume paint applicators with a minimum transfer efficiency of at least 50 percent or other application techniques with equivalent or higher transfer efficiency. 	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			<p>MM AQ-3: Vehicle Trip Reduction. Develop a qualifying Commute Trip Reduction (CTR)/ Transportation Demand Management (TDM) plan to reduce mobile GHG emissions for all uses. The TDM plan shall be approved by the City of Santa Ana prior to the issuance of building permits. The TDM plan shall discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking. The following measures shall be incorporated into the TDM plan.</p> <p>TDM Requirements for Non-Residential Uses:</p> <ul style="list-style-type: none"> • The Project Applicant shall consult with the local transit service provider to maintain and identify opportunities to maximize transit. Evidence of compliance with this requirement may include correspondence from the local transit provider(s) regarding the potential need for installing bus shelters or bus stops at the site. • The portion of the TDM plan for non-residential uses shall include, but not be limited to the following potential measures: ride-matching assistance, preferential carpool parking, flexible work schedules for carpools, half-time transportation coordinators, providing a web site or message board for coordinating rides, designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles, and including bicycle end of trip facilities (such as bicycle parking and changing/shower facilities). This list 	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			<p>may be updated as new methods become available. Verification of this measure shall occur prior to building permit issuance for the commercial uses.</p> <p>TDM Requirements for Residential Units:</p> <ul style="list-style-type: none"> Rental Units. Upon a residential dwelling being rented or offered for rent, the Project Applicant shall notify and offer to the tenant or prospective tenant, materials describing public transit, ridesharing, and nonmotorized commuting opportunities in the vicinity of the development. The materials shall be approved by the City of Santa Ana. The materials shall be provided no later than the time the rental agreement is executed. This information shall be submitted to the City of Santa Ana Planning Division for review and approval, prior to the issuance of the first certificate of occupancy. <p>MM AQ-4: Prohibition of Fireplaces. The installation of wood-burning and natural gas devices shall be prohibited inside residential dwelling units. The purpose of this measure is to limit emissions of ROG, NO_x, and particulate matter emissions from wood-burning and natural gas devices used for primary heat, supplemental heat, or ambiance. This prohibition shall be noted on the deed and/or lease agreements for tenants to obey.</p> <p>MM AQ-5: Electric Landscape Equipment. Prior to the issuance of occupancy permits, the Planning Division shall confirm that the</p>	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			<p>Project's Codes Covenants and Restrictions (CC&Rs) and/or tenant lease agreements include contractual language that all landscaping equipment used on site shall be 100 percent electrically powered. 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.</p> <p>MM AQ-6: Low VOC Paint (Operations). The Project Applicant shall require by contract specifications for commercial development to use interior and exterior architectural coatings (paint and primer including parking lot paint) products that have a volatile organic compound rating of 10 grams per liter or less. Contract specifications shall be reviewed and approved by the City of Santa Ana prior to the issuance of occupancy permits. This measure shall be made a condition of approval for continued upkeep of the property.</p>	
<p>Impact AQ-3: The Project would not result in exposure of sensitive receptors to substantial pollutant concentrations.</p>		Potentially significant	<p>GPU FEIR Mitigation Measures MM AQ-1, listed previously</p> <p>Project Specific Mitigation Measures MM AQ-1, listed previously</p>	Less than significant
<p>Impact AQ-4: The Project would not result in emissions (such as those leading to odors) adversely affecting a substantial number of people.</p>		Less than significant	None required	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Cumulative		Potentially significant	GPU FEIR Mitigation Measures: MM AQ-1 through MM AQ-2, listed previously Project Specific Mitigation Measures: MM AQ-1 through MM AQ-6, listed previously	Significant and unavoidable
5.2 Cultural Resources				
Impact CUL-1: The Project would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5.		No impact	None required	No impact
Impact CUL-2: The Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.		Potentially Significant	GPU FEIR Mitigation Measures MM CUL-4: For projects with ground disturbance—e.g., grading, excavation, trenching, boring, or demolition that extend below the current grade—prior to issuance of any permits required to conduct ground-disturbing activities, the City shall require an Archaeological Resources Assessment be conducted under the supervision of an archaeologist that meets the Secretary of the Interior’s Professionally Qualified Standards in either prehistoric or historic archaeology. Assessments shall include a California Historical Resources Information System records search at the South Central Coastal Information Center and of the Sacred Land Files maintained by the Native American Heritage Commission. The records searches will determine if the proposed project area has been previously surveyed for archaeological resources, identify and characterize the results of previous cultural resource surveys, and disclose any cultural resources that have been recorded and/or evaluated. If unpaved surfaces are present within the project area, and the entire project area has not been previously surveyed within	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			<p>the past 10 years, a Phase I pedestrian survey shall be undertaken in proposed project areas to locate any surface cultural materials that may be present.</p> <p>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 onsite 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</p>	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			<p>recognized scientific or educational repository, transfer to the tribe, or respectful reinternment in an area designated by the tribe.</p> <p>Project Specific Mitigation Measures</p> <p>MM CR-1: If a resource is determined significant, the Project Applicant, qualified archaeologist, and tribal monitors (as included in MM TCR-1) Native American tribal representative shall meet and confer regarding the treatment measures and mitigation for such resources. Pursuant to PRC Section 21083.2(b), avoidance is the preferred method of preservation for archaeological resources and may include deeding archaeological resources into permanent conservation easements or planning parks, greenspace, or other open space to incorporate archaeological resources. If preservation in place or avoidance is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis of the artifacts that are recovered. The methods and results of the data recovery excavations shall be included in the monitoring report that is described in MM CR-2. The report shall include a description of resources recovered, treatment of the resources, results of the artifact processing, analysis, and research, and evaluation of the resources with respect to the California Register of Historical Resources and CEQA. Construction activities in the immediate vicinity of the discovery can resume once the fieldwork component of the treatment measures has been implemented. These treatment measures and mitigation shall reduce any significant impacts by</p>	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			ensuring that either the resource is preserved in place or is removed prior to its destruction by construction activities. MM CR-2: After monitoring has been completed, the qualified archaeologist shall prepare a monitoring report that details the results of monitoring activities, which shall be submitted to the City and to the SCCIC at the University California, Fullerton.	
Impact CUL-3: The Project would not disturb any human remains, including those interred outside of formal cemeteries.		Less than significant	None required	Less than significant
Cumulative		Potentially significant	GPU FEIR Mitigation Measures: CUL-4, and CUL-6, listed previously Project Specific Mitigation Measures: CR-1 and CR-2, listed previously	Less than significant
5.3 Energy				
Impact E-1: The Project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation.		Less than significant	None required	Less than significant
Impact E-2: The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.		No impact	None required	No impact
Cumulative		Less than significant	None required	Less than significant
5.4 Geology and Soils				
Impact GEO-1i: The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving		No impact	None required	No impact

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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.				
Impact GEO-1ii: The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.	PPP GEO-1: CBC Compliance. The Project is required to comply with the California Building Standards Code (CBC) as included in the City’s Municipal Code as Chapter 8, Article 2, Division 1, to preclude significant adverse effects associated with seismic and soils hazards. As part of CBC compliance, CBC related and geologist and/or civil engineer specifications for the proposed Project shall be incorporated into grading plans and building specifications as a condition of construction permit approval.	Less than significant	None required	Less than significant
Impact GEO-1iii: The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.	PPP GEO-1 , listed previously	Less than significant	None required	Less than significant
Impact GEO-1iv: The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.		No impact	None required	No impact
Impact GEO-2: The Project would not result in substantial soil erosion or the loss of topsoil.		Less than significant	None required	Less than significant
Impact GEO-3: The Project would not be located on a geologic unit or soil that	PPP GEO-1 , listed previously	Potentially significant	Project Specific Mitigation Measures	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p>is unstable, or that would become unstable as a result of the Project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction or collapse.</p>			<p>MM GEO-1 Incorporation of and Compliance with a Design Level Geotechnical Report. A final design level geotechnical report that complies with all applicable state and local code requirements shall be prepared for each Project structure by a California licensed qualified geotechnical engineer consistent with the California Building Code and City of Santa Ana requirements applicable at the time of grading/construction and shall include recommendations related to site grading and earthwork, fill materials, compaction, foundations, and other structural elements. The report recommendations shall be included in construction specifications and permits; and confirmed through onsite inspections.</p> <p>MM GEO-2 Implementation of Geotechnical Recommendations for Groundwater and Expansive Soils. Project plans, grading specifications, and construction permitting shall incorporate site specific earthwork and ground improvement requirements related to groundwater saturated soils and expansive soils consistent with the California Building Code and City of Santa Ana requirements applicable at the time of grading/construction as stated in a design level geotechnical report and approved by the City's Building and Safety Division. This shall include recommendations related to discovery of groundwater, wet soils, or unstable soils during grading, stabilization, dewatering, fill materials, and foundations.</p>	
<p>Impact GEO-4: The Project would be located on expansive soil, as defined in Table 18-1-B of the Uniform Building</p>	<p>PPP GEO-1, listed previously</p>	<p>Potentially significant</p>	<p>Project Specific Mitigation Measures MM GEO-1, listed previously</p>	<p>Less than significant</p>

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Code (1994), but would not create substantial risks to life or property.			MM GEO-2 , listed previously	
Impact GEO-5: The Project would not result in soils incapable of adequately supporting the use of wastewater disposal systems where sewers are not available for disposal of wastewater.		No impact	None required	No impact
Impact GEO-6: The Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.		Potentially significant	<p>GPU FEIR Mitigation Measures</p> <p>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 (see Figure 5.6-3), 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.</p> <p>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 (NHMLA). The repository shall be identified, and a</p>	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			<p>curatorial arrangement shall be signed, prior to collection of the fossils.</p> <p>Project Specific Mitigation Measures</p> <p>MM PALEO-1: Retention of a Qualified Paleontologist. Project plans, grading specifications, and construction permitting shall ensure that prior to the start of excavation, the client shall retain a Qualified Paleontologist who meets the professional criteria established by the Society of Vertebrate Paleontology (SVP 2010) to oversee the implementation of all paleontological resources mitigation requirements for the proposed Project.</p> <p>MM PALEO-2: Paleontological Resources Sensitivity Training. Project plans, grading specifications, and construction permitting shall ensure that prior to the start of excavations, the Qualified Paleontologist, or their designee, shall conduct paleontological resources awareness training for onsite personnel. The training session shall focus on how to identify paleontological resources that may be encountered during excavations and the procedures to be followed in the event of their discovery. The City shall ensure onsite personnel are made available for and attend the training and retain documentation demonstrating attendance.</p> <p>MM PALEO-3: Paleontological Monitoring. Project plans, grading specifications, and construction permitting shall detail that paleontological resources monitoring shall be required for excavations below 20 feet below ground surface (bgs). Paleontological monitoring shall be conducted by a monitor who meets the professional criteria established by the Society of Vertebrate Paleontology working under the direct</p>	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			<p>supervision of the Qualified Paleontologist. Monitoring can be reduced, or ceased entirely, if determined adequate by the Qualified Paleontologist. Recommendations for reduction or cessation of monitoring will be based on a more accurate understanding of the lithologic character and age of the sediments exposed during excavation. If deeper excavations continue to encounter younger, Holocene alluvium, monitoring shall be reduced from full-time to part-time monitoring or weekly inspections. If the Qualified Paleontologist determines, based on the lithologic character of the sediments, that there is very little likelihood of impacting Pleistocene marine sediments, paleontological monitoring shall cease entirely. The paleontological monitor shall collect any identifiable fossils encountered during the excavations. If onsite personnel discover potential fossils during excavations when a paleontological monitor is not present, they shall cease excavation within 50 feet of the discovery and contact the Qualified Paleontologist. Construction activities may resume after the discovery is assessed by the Qualified Paleontologist and appropriate treatment measures have been implemented.</p> <p>MM PALEO-4: Paleontological Resources Treatment and Disposition. Project plans, grading specifications, and construction permitting shall require that significant fossils be prepared to the point of identification and cataloged. Significant fossils shall be curated at a public, non-profit institution with a research interest in the material and with retrievable storage, such as the Natural History Museum of Los Angeles County, if such an institution agrees to accept the fossils. If no institution accepts the fossil collection, then the fossils may be donated to a local</p>	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			museum, historical society, school, or other institution for educational purposes. Accompanying notes, reports, maps, and photographs shall also be filed with the final repository. MM PALEO-5: Paleontological Resources Monitoring Report. Project plans, grading specifications, and construction permitting shall ensure that upon completion of the excavation phase of the Project, the Qualified Paleontologist shall prepare a report summarizing the results of the monitoring efforts. The report shall be submitted to the City to signify the satisfactory completion of required paleontological mitigation measures. If significant fossils are discovered, the report shall also be submitted to the appropriate repositories.	
Cumulative	PPP GEO-1 , listed previously	Less than significant	GPU FEIR Mitigation Measures: MM GEO-1 through MM GEO-3, listed previously Project Specific Mitigation Measures: MM PAELO-1 through MM PALEO-5, listed previously	Less than significant
5.5 Greenhouse Gas Emissions				
Impact GHG-1: The Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.		Potentially significant	GPU FEIR Mitigation Measures MM AQ-1 , listed previously	Less than significant
Impact GHG-2: The Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.		Potentially significant	Project Specific Mitigation Measures MM AQ-3 , listed previously MM AQ-4 , listed previously MM AQ-5 , listed previously MM AQ-6 , listed previously	Less than significant
Cumulative		Potentially significant	MM GHG-1: Solar Panels. The Project shall be required to install solar photovoltaic (PV)	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			<p>panels or other source of renewable electricity generation onsite, based on the maximum roof area available for solar (i.e., solar-ready zone). The solar-ready zone shall comply with Section 110.10 of the 2022 California Energy Code and shall comply with access, pathway, ventilation, and spacing requirements, and exclude skylight area.</p> <p>The final PV generation facility size requires approval by Southern California Edison (SCE). SCE's Rule 21 governs operating and metering requirements for any facility connected to SCE's distribution system. Should SCE limit the offsite export, the proposed Project may utilize a battery energy storage system (BESS) to lower offsite export while maintaining onsite renewable generation to off-set consumption. The electrical system and infrastructure must be clearly labeled with noticeable and permanent signage. The schedule of photovoltaic system locations may be updated as needed.</p> <p>MM GHG-2: LEED, Charging Stations, and Bus Stops. Prior to the issuance of a Phase 1, Phase 2, or Phase 3 building permits, the Project Applicant or successor in interest shall provide documentation to the City of Santa Ana demonstrating the following:</p> <ul style="list-style-type: none"> The Project shall be designed to achieve Leadership in Energy and Environmental Design (LEED) certification to meet or exceed CALGreen Tier 2 standards in effect at the time of building permit application in order to exceed 2022 Title 24 energy efficiency standards. 	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			<ul style="list-style-type: none"> • The Project shall provide facilities to support electric charging stations per the Tier 2 standards in Section A5.106.5.3 (Nonresidential Voluntary Measures) and Section A5.106.8.2 (Residential Voluntary Measures) of the 2022 CALGreen Code. • The Applicant 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. <p>MM GHG-3: Landfill Waste. The development (Phase 1, Phase 2, and Phase 3) shall divert a minimum of 75 percent of landfill waste. Prior to issuance of certificate of occupancy, a recyclables collection and load area shall be constructed in compliance with the City standards for Recyclable Collection and Loading Areas.</p> <p>MM GHG-4: Electrical Landscape Equipment. Prior to the issuance of Phase 1, Phase 2, or Phase 3 occupancy permits, the City Planning and Building and Safety Divisions shall confirm that tenant lease agreements include contractual language that all landscaping equipment used on site shall be 100 percent electrically powered. This requirement shall be included in the third-party vendor agreements for landscape services for the building owner and tenants, as applicable.</p> <p>MM GHG-5: Energy Efficient Appliances. All major applicant provided in-unit</p>	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			residential appliances (e.g., dishwashers, refrigerators, clothes washers and dryers, water heaters, and for space heating) provided/installed shall be electric (i.e., appliances that do not use natural gas, propane, or other fossil fuels) and Energy Star certified or of equivalent energy efficiency where applicable. Prior to the issuance of the certificate of occupancy, the City of Santa Ana shall verify implementation of this requirement. Installation of electric Energy Star-certified or equivalent appliances shall be verified by the Planning and Building Department during plan check.	
5.6 Hazards and Hazardous Materials				
<p>Impact HAZ-1: The Project would not create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials.</p>	<p>PPP HAZ-1: SCAQMD Rule 1403. Prior to issuance of demolition permits, the Project applicant shall submit verification to the City Building and Safety Division that an asbestos survey has been conducted at all existing buildings located on the Project site. If asbestos or asbestos containing material is found, the Project applicant shall follow all procedural requirements and regulations of the South Coast Air Quality Management District (SCAQMD) Rule 1403. Rule 1403 regulations require that the following actions be taken: notification of SCAQMD prior to construction activity, asbestos removal in accordance with prescribed procedures, placement of collected asbestos in leak-tight containers or wrapping, and proper disposal.</p>	Potentially significant	<p>Project Specific Mitigation Measures</p> <p>Mitigation Measure HAZ-1: Prior to issuance of a grading permit, a Soil Management Plan (SMP) shall be prepared by a qualified hazardous materials consultant and shall detail procedures and protocols for excavation and disposal of onsite hazardous materials, including:</p> <ul style="list-style-type: none"> Any subsurface materials exposed during construction activities that appear potentially contaminated, based on either visual observation or suspect odors, shall be segregated, stockpiled, and tested for potential contamination. If contamination is found to be present per the California Department of Toxic Substances Control (DTSC) Environmental Screening Levels (ESLs) for the applicable use, and cannot be 	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
	<p>PPP HAZ-2: Lead. Prior to issuance of demolition permits, the Project applicant shall submit verification to the City Building and Safety Division that a lead-based paint survey has been conducted at all existing buildings located on the Project site. If lead-based paint is found, the Project applicant shall follow all procedural requirements and regulations for proper removal and disposal of the lead-based paint. CalOSHA has established limits of exposure to lead contained in dusts and fumes. Specifically, CCR Title 8, Section 1532.1 provides for exposure limits, exposure monitoring, and respiratory protection, and mandates good working practices by workers exposed to lead.</p>		<p>reused on the Project site, it shall be transported by a certified hazardous waste hauler to a landfill permitted by the state to accept hazardous materials and disposed of per California Hazardous Waste Regulations.</p> <ul style="list-style-type: none"> • A Health and Safety Plan (HASP) shall be prepared for each contractor that addresses potential safety and health hazards and includes the requirements and procedures for employee protection. The HASP shall also outline proper soil handling procedures and health and safety requirements to minimize worker and public exposure to hazardous materials during construction. • All SMP measures shall be printed on the construction documents, contracts, and project plans prior to issuance of grading permits. 	
<p>Impact HAZ-2: The Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment.</p>	<p>PPP HAZ-1, listed previously</p> <p>PPP HAZ-2, listed previously</p> <p>PPP WQ-1: NPDES/SWPPP. Prior to issuance of any grading or demolition permits, the applicant shall provide the City Building and Safety Division evidence of compliance with the National Pollutant Discharge Elimination System (NPDES) requirement to</p>	<p>Potentially significant</p>	<p>Project Specific Mitigation Measures</p> <p>Mitigation Measure HAZ-1, listed previously</p> <p>Mitigation Measure HAZ-2: Prior to issuance of a building permit for a future building within the Specific Plan area, the Project applicant shall, at its election, undertake one of the following three activities: (1) perform a subsurface soil vapor assessment demonstrating that vapor concentrations are within established limits for vapor intrusion into future buildings; (2) prepare a human health risk assessment (HHRA) demonstrating that documented levels of soil vapor do not represent a significant health risk to</p>	<p>Less than significant</p>

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
	<p>obtain a construction permit from the State Water Resource Control Board (SWRCB). The permit requirement applies to grading and construction sites of one acre or larger. The Project applicant/proponent shall comply by submitting a Notice of Intent (NOI) and by developing and implementing a Stormwater Pollution Prevention Plan (SWPPP) and a monitoring program and reporting plan for the construction site.</p> <p>PPP WQ-3: WQMP. Prior to the approval of the Grading Plan and issuance of Grading Permits a completed Water Quality Management Plan (WQMP) shall be submitted to and approved by the City Building and Safety Division. The WQMP shall identify all Post-Construction, Site Design, Source Control, and Treatment Control Best Management Practices (BMPs) that will be incorporated into the development project in order to minimize the adverse effects on receiving waters.</p>		<p>occupants of the future buildings; or (3) submit plans for a vapor intrusion mitigation system (VIMS) to be installed beneath the foundation of the future buildings. The Project applicant may rely on different measures of the foregoing options in different parts of the Specific Plan area.</p>	
<p>Impact HAZ-3: The Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within 0.25 mile of an existing or proposed school.</p>	<p>PPP HAZ-1, listed previously</p> <p>PPP HAZ-2, listed previously</p>	<p>Less than significant</p>	<p>None required</p>	<p>Less than significant</p>
<p>Impact HAZ-4: The Project would not be located on a site that is included on</p>		<p>No impact</p>	<p>None required</p>	<p>No impact</p>

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.				
Impact HAZ-5: The Project would not result in a safety hazard or excessive noise for people residing or working in the Project area for a project located within an airport land use plan or, where such plan has not been adopted, be within 2 miles of a public airport use airport or public use airport.		Less than significant	None required	Less than significant
Impact HAZ-6: The Project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.		Less than significant	None required	Less than significant
Impact HAZ-7: The Project would not expose people or structures either directly or indirectly to a significant risk of loss, injury, or death involving wildland fires.		No impact	None required	No impact
Cumulative	PPP HAZ-1, PPP HAZ-2, PPP WQ-1, PPP WQ-3	Potentially significant	MM HAZ-1 and MM HAZ-2, listed previously	Less than significant
5.7 Hydrology and Water Quality				
Impact WQ-1: The Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	PPP WQ-1: NPDES/SWPPP, listed previously. PPP WQ-2: Groundwater Dewatering Permits. Prior to initiation of excavation activities, the Project applicant shall obtain coverage under the Santa Ana RWQCB General Waste Discharge Requirements for Discharges to Surface Waters Resulting from De Minimis Discharges or Groundwater	Less than significant	None required	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
	<p>Dewatering Operations, and/or Groundwater Cleanup / Remediation Operations at Sites within the Newport Bay Watershed Permit (Order No. R8-2019-0061, NPDES No. CAG918002), or any other subsequent permit for dewatering activities, and provide evidence of coverage to the City of Santa Ana Building and Safety Division designee. This shall include submission of a Notice of Intent (NOI) for coverage under the permit to the Santa Ana Regional Water Quality Control Board (RWQCB) at least 60 days prior to the start of excavation activities and anticipated discharge of dewatered groundwater to surface waters. Groundwater dewatering activities shall comply with all applicable provisions in the permit, including water sampling, analysis, treatment (if required), and reporting of dewatering-related discharges. Upon completion of groundwater dewatering activities, a Notice of Termination shall be submitted to the Santa Ana RWQCB.</p> <p>PPP WQ-3: WQMP, listed previously.</p>			
<p>Impact WQ-2: The Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin.</p>	<p>PPP WQ-2, listed previously.</p>	<p>Less than significant</p>	<p>None required</p>	<p>Less than significant</p>
<p>Impact WQ-3: The Project would not substantially alter the existing drainage</p>	<p>PPP WQ-1, listed previously.</p>	<p>Less than significant</p>	<p>None required</p>	<p>Less than significant</p>

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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 a substantial erosion or siltation on- or offsite.	PPP WQ-3, listed previously.			
Impact WQ-4: The Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river 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 offsite.	PPP WQ-1, listed previously.	Less than significant	None required	Less than significant
Impact WQ-5: The Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river 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.	PPP WQ-1, listed previously. PPP WQ-2, listed previously.	Less than significant	None required	Less than significant
Impact WQ-6: The Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows.		Less than significant	None required	Less than significant
Impact WQ-7: The Project would not risk release of pollutants due to Project inundation in a flood hazard, tsunami, or seiche zone.		No impact	None required	No impact

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact WQ-8: The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	PPP WQ-1, listed previously. PPP WQ-2, listed previously. PPP WQ-3, listed previously.	Less than significant	None required	Less than significant
Cumulative	PPP WQ-1 and PPP WQ-3, listed previously.	Less than significant	None required	Less than significant
5.8 Land Use and Planning				
Impact LU-1: The Project would not physically divide an established community.		No impact	None required	No impact
Impact LU-2: The Project would not 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	None required	Less than significant
Cumulative		Less than significant	None required	Less than significant
5.9 Noise				
Impact NOI-1: The Project would not generate a substantial temporary or permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	Conditions of Approval COA N-1: Onsite Traffic Noise. Prior to issuance of building permits for Phase 1, Phase 2, and Phase 3, a detailed acoustical study based on architectural plans shall be prepared by a qualified acoustical consultant to demonstrate compliance with General Plan Noise Element Standards. The acoustical study shall be submitted to the City's Planning and Building Agency to demonstrate that all residential units would meet the City's 65 dBA exterior noise standard and 45 dBA interior noise standard to the satisfaction of the Planning and	Potentially significant	GPU FEIR Mitigation Measures MM N-1: Construction contractors shall implement the following measures for construction activities conducted in the City of Santa Ana. Construction plans submitted to the City shall identify these measures on demolition, grading, and construction plans submitted to the City: The City of Santa Ana Planning and Building Agency shall verify that grading, demolition, and/or construction plans submitted to the City include these notations prior to issuance of demolition, grading and/or building permits. <ul style="list-style-type: none">Construction activity is limited to the hours: Between 7:00 a.m. to 8:00 p.m. Monday through Saturday, as prescribed in	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
	<p>Building Agency Executive Director. This complies with the applicable sections of the California Building Code (Title 24 of the California Code of Regulations). The necessary noise reductions may be achieved by implementing noise control measures at the receiver locations. The required noise attenuation measures shall be incorporated into the applicable building plans and specifications.</p>		<p>Municipal Code Section 18-314(e). Construction is prohibited on Sundays.</p> <ul style="list-style-type: none"> • During the entire active construction period, equipment and trucks used for project construction shall use the best-available noise control techniques (e.g., improved mufflers, equipment re-design, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds), wherever feasible. • Impact tools (e.g., jack hammers and hoe rams) shall be hydraulically or electrically powered wherever possible. Where the use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used along with external noise jackets on the tools. • Stationary equipment such as generators and air compressors shall be located as far as feasible from nearby noise-sensitive uses. • Stockpiling shall be located as far as feasible from nearby noise-sensitive receptors. • Construction traffic shall be limited to approved haul routes established by the City Public Works Agency. Exceptions to approved routes must be granted by the Public Works Agency before any modification to approved haul routes. • At least 10 days prior to the start of construction activities, a sign shall be posted at the entrance(s) to the job site, clearly visible to the public, that includes permitted construction days and hours, as well as the telephone 	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			<p>numbers of the City's and contractor's authorized representatives that are assigned to respond in the event of a noise or vibration complaint. If the authorized contractor's representative receives a complaint, he/she shall investigate, take appropriate corrective action, and report the action to the City.</p> <ul style="list-style-type: none"> • Signs shall be posted at the job site entrance(s), within the onsite construction zones, and along queueing lanes (if any) to reinforce the prohibition of unnecessary engine idling. All other equipment shall be turned off if not in use for more than 5 minutes. • During the entire active construction period and to the extent feasible, the use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. The construction manager shall use smart back-up alarms, which automatically adjust the alarm level based on the background noise level, or switch off back-up alarms and replace with human spotters in compliance with all safety requirements and laws. • Erect temporary noise barriers (at least as high as the exhaust of equipment and breaking line-of-sight between noise sources and sensitive receptors), as necessary and feasible, to maintain construction noise levels at or below the performance standard of 80 dBA Leq. Barriers shall be constructed with a solid material that has a density of at least 4 pounds per square foot with no gaps from the ground to the top of the barrier. 	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			<p>Project Specific Mitigation Measures</p> <p>Mitigation Measure NOI-1: Prior to the issuance of construction/grading permits, the Project Applicant shall obtain a permit from the City’s Building and Safety Division 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 requires the following:</p> <p>Stationary equipment such as generators and air compressors shall adhere to the following:</p> <ul style="list-style-type: none"> • Stationary equipment (e.g., generators, air compressors, etc.) shall be located 300 feet or more away from residences. • Stationary equipment shall be surrounded with noise barriers to achieve a minimum 10 dBA reduction. Alternatively, a temporary noise barrier may be used along the property line. <p>Mobile equipment such as concrete mixer trucks, pump trucks shall adhere to the following:</p> <ul style="list-style-type: none"> • The nighttime noise control plan shall prohibit mobile equipment and trucks from operating within the following distances to offsite sensitive receptors: <ul style="list-style-type: none"> ▪ Phase 1: Trucks and equipment shall be 140 feet or more away from the Versailles residences along Plaza Drive. ▪ Phase 2: No minimum distance required (Phase 2 is 410 feet 	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			from sensitive receptors and would not exceed thresholds). <ul style="list-style-type: none"> ▪ Phase 3: Trucks and equipment shall be 150 feet or more away from the Versailles residences along Plaza Drive. • The nighttime noise control plan shall prohibit mobile equipment and trucks from operating within the following distances to onsite sensitive receptors: <ul style="list-style-type: none"> ▪ Phase 1: No minimum distance is required because no onsite receptors would be constructed prior to Phase 1. ▪ Phase 2: Trucks and equipment shall be 150 feet or more away from Phase 1 onsite residences. ▪ Phase 3: Trucks and equipment shall be 170 feet or more away from Phase 1 and Phase 2 onsite residences. 	
Impact NOI-2: The Project would not generate excessive groundborne vibration or groundborne noise levels.		Less than significant	None required	Less than significant
Impact NOI-3: The Project would not expose people residing and working in the Project area to excessive noise levels related to a public airport.		Less than significant	None required	Less than significant
Cumulative		Less than significant	None required	Less than significant
5.10 Population and Housing				
Impact POP-1: The Project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).		Less than significant	None required	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact POP-2: The Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.		No Impact	None required	No impact
Cumulative		Less than significant	None required	Less than significant
5.11 Public Services				
Impact PS-1: The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire 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.		Less than significant	None required	Less than significant
Impact PS-2: The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered police 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 services.		Less than significant	None required	Less than significant
Impact PS-3: The Project would not 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.		Less than significant	None required	Less than significant
Impact PS-4: The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered library		Less than significant	None required	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
facilities, the construction of which could cause significant environmental impacts.				
Cumulative		Less than significant	None required	Less than significant
5.12 Parks and Recreation				
Impact PR-1: The Project would result in substantial adverse physical impacts associated with the provision of new or physically altered park facilities, the construction of which could cause significant environmental impacts.		Potentially significant	There are no feasible mitigation measures to reduce the citywide parkland deficiency	Significant and unavoidable
Impact PR-2: The Project would 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.		Potentially significant	There are no feasible mitigation measures to reduce the citywide parkland deficiency	Significant and unavoidable
Impact PR-3: The Project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.		Potentially significant	There are no feasible mitigation measures to reduce the citywide parkland deficiency	Significant and unavoidable
Cumulative		Potentially significant	There are no feasible mitigation measures to reduce parkland deficiency	Significant and unavoidable
5.13 Transportation				
Impact TR-1: The Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.		Less than significant	None required	Less than significant
Impact TR-2: The Project would not conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b).		Less than significant	None required	Less than significant
Impact TR-3: The Project would not substantially increase hazards due to a		Less than significant	None required	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).				
Impact TR-4: The Project would not result in inadequate emergency access.		Less than significant	None required	Less than significant
Cumulative		Less than significant	None required	Less than significant
5.14 Tribal Cultural Resources				
Impact TCR-1: The Project would not cause a substantial adverse change in the significance of a tribal cultural resource 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	<p>GPU FEIR Mitigation Measures MM CUL-4, listed previously. MM CUL-6, listed previously.</p> <p>Project Specific Mitigation Measures Mitigation Measure TCR-1: Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities</p> <p>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 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.</p> <p>B. A copy of the executed monitoring agreement shall be submitted to the Lead Agency prior to the earlier of the</p>	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			<p>commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.</p> <p>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 TCRs, 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.</p> <p>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/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</p>	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			<p>phase at the Project site possesses the potential to impact Kizh TCRs.</p> <p>MM TCR-2: Unanticipated Discovery of Tribal Cultural Resource Objects (Non-Funerary/Non-Ceremonial)</p> <p>A. Upon discovery of any TCRs, 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 TCR has been fully assessed by the Kizh monitor in consultation with a qualified archaeologist. The Kizh will recover and retain all discovered TCRs 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.</p> <p>MM TCR-3: Unanticipated Discovery of Human Remains and Associated Funerary or Ceremonial Objects</p> <p>A. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.</p> <p>B. If Native American human remains and/or grave goods are discovered or recognized on the project site, then Public Resource Code 5097.9 as well as Health and Safety Code Section 7050.5 shall be followed.</p>	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			C. Human remains and grave/burial goods shall be treated alike per California 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.	
Impact TCR-2: The Project would not cause a substantial adverse change in the significance of 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, that considers the significance of the resource to a California Native American tribe.		Potentially significant	Project Specific Mitigation Measures MM TCR-1 , listed previously. MM TCR-2 , listed previously. MM TCR-3 , listed previously.	Less than significant
Cumulative		Potentially significant	GPU FEIR Mitigation Measures CUL-4 and CUL-6, listed previously. Project Specific Mitigation Measure TCR-1 through TCR-3, listed previously.	Less than significant
5.15 Utilities and Service Systems				
Impact UT-1: The Project would require or result in the relocation or construction of new water facilities or expansion of existing facilities; however, the construction of these facilities would not cause significant environmental effects.		Less than significant	None required	Less than significant
Impact UT-2: The City would have sufficient water supplies available to serve the Project and reasonably		Less than significant	None required	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
foreseeable development during normal, dry, and multiple dry years.				
Impact UT-3: The Project would not require or result in the relocation or construction of new or expanded wastewater facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects.		Less than significant	None required	Less than significant
Impact UT-4: The Project would result in a determination by the wastewater treatment provider that would serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.		Less than significant	None required	Less than significant
Impact UT-5: The Project would not require or result in the relocation or construction of new drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.		Less than significant	None required	Less than significant
Impact UT-6: The Project would not 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	None required	Less than significant
Impact UT-7: The Project would comply with federal, state, and local statutes and regulations related to solid waste.		No impact	None required	No impact
Cumulative		Less than significant	None required	Less than significant

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2. Introduction

2.1 SUPPLEMENTAL EIR INTRODUCTION

This Draft Environmental Impact Report (EIR) has been prepared as a Supplemental EIR to the City of Santa Ana's General Plan Update Final Environmental Impact Report (GPU FEIR), State Clearinghouse (SCH) No. 2020029087, that was certified by the City on April 19, 2022.

This Draft Supplemental EIR evaluates the environmental effects that may result from the construction and operation of the proposed Project. This EIR has been prepared by the City of Santa Ana in its capacity as Lead Agency, as that term is defined in Section 15367 of the CEQA Guidelines (14 California Code of Regulations Section 15000 et seq.) and in conformance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.). This EIR has been prepared to identify, analyze, and mitigate the significant environmental effects of the proposed Project.

CEQA requires each EIR to reflect the independent judgment of the Lead Agency, including but not limited to the thresholds of significance used to analyze Project impacts, analyses and conclusions regarding the level of significance of impacts both before and after mitigation, the identification and application of mitigation measures to avoid or reduce Project-related impacts, and the consideration of alternatives to the proposed Project. In preparing this EIR, the City of Santa Ana has employed CEQA and environmental technical specialists; however, the analyses and conclusions set forth in this EIR reflect the independent judgment of the City as Lead Agency.

2.2 ENVIRONMENTAL BACKGROUND

The City of Santa Ana (City) General Plan Update (GPU) was adopted, and the GPU FEIR 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 entire City. The GPU Land Use Element guides growth and development (e.g., infill development, redevelopment, use and revitalization/restoration) by designating land uses.

A project is consistent with the GPU if the development density does not exceed what was contemplated and analyzed for the parcel(s) in the certified GPU FEIR and complies with the associated standards applicable to that development density (State CEQA Guidelines Section 15183(i)(2)). Development density standards can include the number of dwelling units per acre, the number of people in a given area, floor area ratio (FAR), and other measures of building intensity, building height, size limitations, and use restrictions.

As identified in the GPU, the Project site is located within the South Bristol Street Focus Area and has a GPU designation of District Center-High (DC-5), which has a maximum FAR of 5.0 or 125 dwelling units per acre (du/ac) and a maximum height of 25 stories that allows up to 8,733,780 square feet (SF) of mixed uses, inclusive of residential uses, within the Project site. This level of redevelopment was included in the GPU FEIR buildout, and applicable mitigation measures were identified, as necessary, to reduce impacts.

Table 1-5 of the GPU FEIR provides a list of the impacts that would result from construction and operation of buildout of the GPU, which include the following:

Significant and Unavoidable Impact: The GPU FEIR identified significant and unavoidable impacts in the following environmental topic areas:

- Air Quality

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

Less Than Significant Impact with Incorporation of Mitigation: The GPU FEIR identified impacts that could be mitigated to less than significant levels with incorporation of mitigation measures in the following environmental topic areas:

- Geology and Soils
- Tribal Cultural Resources

Less Than Significant Impact: The GPU FEIR identified less than significant impacts in the following environmental topic areas:

- Aesthetics
- Biological Resources
- 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 FEIR determined that no impact would occur with respect to the following environmental topic areas below.

- Agricultural and Forestry Resources
- Wildfire

2.3 PURPOSE OF AN EIR

CEQA requires that all state and local governmental agencies consider the environmental consequences of projects over which they have discretionary authority prior to taking action on those projects. Pursuant to the provisions of CEQA Guidelines Section 15121(a), this EIR is intended as an informational document to inform public agency decision makers and the general public of the significant environmental effects of the proposed Project, identify possible ways to avoid or minimize those significant effects, and describe reasonable alternatives to the proposed Project that might avoid or lessen significant environmental effects. Thus, this EIR is intended to aid the review and decision-making process.

The CEQA Guidelines provide the following information regarding the purpose of an EIR:

- **Project Information and Environmental Effects.** An EIR is an informational document that will inform public agency decision makers and the public of the significant environmental effect(s) of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR along with other information that may be presented to the agency (CEQA Guidelines Section 15121(a)).

- Standards for Adequacy of an EIR. An EIR should be prepared with a sufficient degree of analysis to enable decision makers to make an intelligent decision that takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure (CEQA Guidelines Section 15151).

As a public disclosure document, the purpose of an EIR is not to recommend either approval or denial of a project, but to provide information regarding the physical environmental changes that would result from an action being considered by a public agency to aid in the agency's decision-making process.

Basis for a Supplemental EIR

The GPU FEIR 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) and CEQA Guidelines Section 15162, which states that no subsequent EIR shall be prepared unless one or more of the following conditions is present:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration 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 or Negative Declaration 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 and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:
 - a. The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
 - 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 project proponents decline to adopt the mitigation measure or alternative.

Also, CEQA Guidelines Section 15163 states that the Lead 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 3.0, *Project Description*, the proposed Project includes a phased redevelopment of the Project site, consistent with the General Plan District Center-High (DC-5) land use designation and the South Bristol Street Focus Area. The proposed Project includes a phased removal of the existing site buildings and development and operation of up to 3,750 multi-family residential units in multi-story structures, 350,000 SF of commercial uses, a 250-room hotel, a 200-unit senior living facility, parking structures, and 13 acres of common open space.

This proposed Project may involve new significant environmental effects or a substantial increase in the previously identified effects. 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 FEIR, pursuant to the requirements of CEQA, as detailed below.

Program EIR and Project EIR CEQA Coverage

A Program EIR is an EIR prepared to assess a series of actions characterized as one project. The actions can be related to one another: geographically; because they are part of a chain of contemplated actions; because they are governed by the same rules, regulations, plans, or other general criteria associated with a program; or because they are individual activities carried out under the same statutory or regulatory authorities and have similar environmental effects and mitigation needs. The GPU FEIR is the Program EIR that examined the buildout of the City's land use plan, which was certified in 2022.

A Project EIR examines the environmental impacts of a specific development project and should focus primarily on the changes in the environment that would result from the development project. This Draft Supplemental EIR fulfills the requirements for a Project EIR and examines the proposed Project for which development applications are currently on file with the City.

As a public disclosure document, the purpose of an EIR is not to recommend either approval or denial of a project, but to provide public information regarding the physical environmental changes that would result from an action being considered by a public agency to aid in the agency's decision-making process.

2.4 SUPPLEMENTAL EIR SCOPE AND CONTENT

Environmental Setting and Baseline

The environmental setting is normally existing conditions at the time the CEQA analysis begins (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 FEIR), 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). Here, the previous project is the GPU; the EIR for which commenced in February 2020 with the preparation of the Notice of Preparation (NOP).

CEQA Guidelines and case law recognize that the date for establishing an environmental baseline cannot be rigid (see 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 FEIR (and thus 2020) and current conditions, such as the most recent available air quality monitoring data for 2021 ambient air conditions

provided in Section 5.1, *Air Quality*, the noise measurements identified in Section, 5.9, *Noise*, and existing traffic conditions identified in Section 5.13, *Transportation*.

Impacts Found to Be Potentially Significant

The City has determined that a Supplemental EIR should be prepared for the proposed Project. As a result, a NOP was prepared and circulated between March 17, 2023 and April 17, 2023 for the required 30-day review period. The purpose of the NOP was to solicit early comments from public agencies with expertise in subjects that are discussed in this Draft EIR. The NOP and written responses to the NOP are contained in Appendix A of this Draft Supplemental EIR. The City of Santa Ana also 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 on March 30, 2023. Comments received at the meeting are contained in Appendix A of this EIR. Topics requiring a detailed level of analysis evaluated in this EIR have been identified based upon the responses to both 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 are potentially significant and required 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
- Parks and Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems

Impacts Found Not to Be Significant. CEQA Guidelines Section 15126.2(a) states that “[a]n EIR shall identify and focus on the significant effects on the environment”. Topics that have been determined not to be significant and are therefore not discussed in detail in the Supplemental EIR were identified based upon the responses to 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 are not potentially significant and are not required to be evaluated in this EIR:

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

2.5 LEAD, RESPONSIBLE, AND TRUSTEE AGENCIES

The CEQA Guidelines define lead, responsible, and trustee agencies. The City of Santa Ana is the Lead Agency for the proposed Project because it holds principal responsibility for approving the proposed Project.

A responsible agency refers to a public agency other than the lead agency that has discretionary approval authority over the proposed Project. Federal, state, regional, and/or local government permits may be required for the proposed Project, whether or not they are explicitly listed below. The following responsible agencies, including federal, state, and regional agencies that may have jurisdiction over some aspects include (but are not limited to):

- Federal Aviation Administration (FAA)
- Airport Land Use Commission (ALUC) for Orange County
- Department of Toxic Substances Control (DTSC)

- South Coast Air Quality Management District (SCAQMD)
- Santa Ana Regional Water Quality Control Board (RWQCB)
- City of Costa Mesa
- Orange County Transportation Authority (OCTA)

Trustee agencies have jurisdiction over certain resources held in trust for the people of California but do not have legal authority over approving or carrying out the project. CEQA Guidelines Section 15386 designates four agencies as trustee agencies: the California Department of Fish and Wildlife with regards to fish and wildlife, native plants designated as rare or endangered, game refuges, and ecological reserves; the State Lands Commission, with regard to state-owned “sovereign” lands, such as the beds of navigable waters and state school lands; the California Department of Parks and Recreation, with regard to units of the state park system; and, the University of California, with regard to sites within the Natural Land and Water Reserves System. There are no trustee agencies for the proposed Project.

2.6 ENVIRONMENTAL REVIEW PROCESS

Notice of Preparation/Initial Study

Pursuant to the requirements of CEQA, the City of Santa Ana, as Lead Agency, prepared a NOP for the proposed Project, which was distributed on March 17, 2023 for a 30-day public review and comment period that ended on April 17, 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 EIR being prepared. Comments received on the NOP are included in Appendix A and summarized in Table 2-1, which also includes a reference to the EIR section(s) in which issues raised in the comment letters are addressed.

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

Comment Letter and Comment	Relevant EIR Section
STATE AGENCIES	
State Native American Heritage Commission, March 14, 2023	
<p>This letter states that compliance with AB 52 applies to any project for which a notice of preparation, notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015. In addition, if the project involves the adoption of an amendment to a general plan or a specific plan, or the designation of proposed designation of open space, on or after March 1, 2015, it may also be subject to Senate Bill 18. The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed Project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. A brief summary of portions of AB 52 and SB 18, as well as the NAHC’s recommendations for conducting consultation is provided. Examples of mitigation measures that, if feasible, would avoid or minimize significant adverse impacts to tribal cultural resources are also provided.</p>	<p>5.2 Cultural Resources 5.14 Tribal Cultural Resources</p>

Comment Letter and Comment	Relevant EIR Section
REGIONAL AGENCIES	
Southern California Association of Governments, April 6, 2023	
<p>This letter states that Southern California Association of Governments (SCAG) is the designated Regional Transportation Agency and the clearinghouse for regionally significant projects and reviews projects for consistency with local and regional plans. The comment requests that the Supplemental EIR is sent to SCAG for review during the public review period. The letter provides a list of the 2020-2045 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) Goals and Strategies that may be applicable to the proposed Project. In addition, the letter provides the SCAG Regional Growth Forecast data for the SCAG region and the City of Santa Ana. The letter also recommends review of SCAG recommended mitigation measures from the 2020 RTP/SCS Final EIR.</p>	<p>5.8, Land Use and Planning 5.10, Population and Housing 5.13, Transportation</p>
Airport Land Use Commission for Orange County, April 17, 2023	
<p>This letter provides details regarding the Project’s location within the AELUP notification area for John Wayne Airport (SNA) and its location within the Federal Aviation Administration (FAA) Federal Aviation Regulations (FAR) Part 77 Notification Area for SNA. The letter states that the EIR should include height policy language and mitigation measures that state no buildings shall be allowed to penetrate the FAR Part 77 imaginary surfaces for SNA. The letter states that projects exceeding 200 feet above ground level require filing with the FAA and ALUC including filing a Notice of Proposed Construction or Alteration (FAA Form 7460-1). The comment states that the City should include a policy in the Specific Plan or mitigation measure in the EIR which states the City shall refer projects in to ALUC for Orange County. The letter requests that referrals be made after the City’s Planning Commission and before the City Council hearing.</p>	<p>5.6, Hazards and Hazardous Materials 5.8, Land Use and Planning 5.9, Noise</p>
Orange County Sanitation District, April 11, 2023	
<p>This letter states that there are potential capacity issues related to the proposed Project for the Orange County Sanitation District sewer line and requests coordination with the District prior to determining points of connection. The letter also states that the District does not allow parking structure drains to connect to sewer per ordinance. The comment states that City sewers eventually connect to District sewers, which lead to the reclamation plant in Fountain Valley.</p>	<p>5.15, Utilities and Service Systems</p>
South Coast Air Quality Management District, April 18, 2023	
<p>This letter requests that the City of Santa Ana provide the Draft EIR and technical documents, including modeling files, to SCAQMD for review during the public review period. The letter references the SCAQMD’s CEQA Air Quality Handbook and recommends using the methodologies of the Handbook to evaluate impacts of the proposed Project, including use of the CalEEMod model, recommended regional significance thresholds, and localized significance thresholds or dispersion modeling. The letter also recommends comparing overlapping construction and operational emissions to operational thresholds. The letter recommends a mobile health risk assessment related to diesel particulate matter from heavy-duty diesel-fueled vehicles. In addition, it recommends using the adopted Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning in 2005. The letter also includes multiple recommended mitigation measures from SCAQMD’s Mitigation Monitoring and Reporting Plan for the 2022 AQMP.</p>	<p>5.1, Air Quality 5.5, Greenhouse Gas Emissions</p>
Orange County Transportation Authority, April 17, 2023	
<p>This letter states that there are multiple bus routes serving the proposed Project (55, 57, 76, 86, 150, and Bravo! Route 553) and the site serves as a</p>	<p>5.13, Transportation</p>

Comment Letter and Comment	Relevant EIR Section
<p>critical transfer hub for these routes. The letter states that Orange County Transportation Authority (OCTA) has the potential for future expansion and would appreciate being included in the development of site plans and requests that street improvement plans be provided to OCTA for review. The letter states that the westbound Sunflower Avenue/Bristol Street stop is a major layover location and as part of long-term development plans, this bus stop is proposed to increase the layover zone to 360 feet long. The letter requests the proposed Project consider investing in bike parking and bike connectivity as multimodal solutions should be incorporated into the Project design.</p>	
COUNTY AND CITY AGENCIES	
City of Irvine, April 13, 2023	
<p>This letter provides a summary of the Project Description and states that the City of Irvine is able to find information in the GPU FEIR regarding the Bristol Street Focus Area and requests this information be included in the Draft EIR for the Project. The letter requests the City clarify that the intensity of the development is within what was analyzed by the GPU FEIR and if it is above, the Dyer/SR-55 and Dyer Rd areas should be included in the Project study area to determine if the proposed Project would result in LOS deficiencies that must be mitigated based on City of Irvine criteria. The letter provides information on the City of Irvine’s traffic analysis criteria. The letter requests that the City of Irvine be added to the Project notification distribution list.</p>	<p>3.0, Project Description 5.13, Transportation</p>
City of Costa Mesa, April 17, 2023	
<p>This letter provides a brief summary of the Project Description and states that the proposed Project is directly north of the City of Costa Mesa. This letter requests that the analysis for the proposed Project include both level of service (LOS) and vehicle miles traveled (VMT) and requests that the City consult with Costa Mesa prior to initiation of the Traffic Impact Analysis (TIA). This letter provides direction on which intersections should be analyzed and requests coordination regarding offsite improvements near the City of Costa Mesa. The letter also requests that the EIR discuss the proposed access points, line of sight at driveways, among other applicable circulation issues. The letter requests that the public services analysis identify impacts associated with the provision of coordinated police and fire. In addition, any needed infrastructure improvements should be identified. This letter also requests the aesthetics analysis include visual simulations/line of sight analysis from key vantage points in Costa Mesa and should evaluate the compatibility of proposed building heights with those in the surrounding area.</p>	<p>5.11, Public Services 5.13, Transportation 5.15, Utilities and Service Systems 5.16, Mandatory Findings of Significance</p>
ORGANIZATIONS	
Southwest Mountain States Regional Council of Carpenters, March 29, 2023	
<p>This letter requests that the City provide all notices related to the proposed Project to the group. The letter states that the City should require the use of a local workforce to benefit the local economy and the environment. The comment states that use of local workforce for construction of the proposed Project would reduce GHG emissions and VMT. The letter also suggests the City impose a training program during construction to prevent the spread of COVID-19. The letter includes an attachment letter from Soil Water Air Protection Enterprise (SWAPE), which includes a discussion of GHG and VMT reductions related to local hire.</p>	<p>5.5, Greenhouse Gas Emissions 5.13, Transportation</p>
Earthjustice, March 30, 2023	
<p>This letter discusses that the proposed Project should incorporate building electrification in order to reduce GHG emissions, energy use, and health impacts. The comment states that one way to analyze GHG emissions is to apply a net-zero emissions threshold and provides a discussion of the Bay</p>	<p>5.1, Air Quality 5.3, Energy 5.5, Greenhouse Gas Emissions</p>

Comment Letter and Comment	Relevant EIR Section
<p>Area Air Quality Management District’s new guidance for analyzing GHG impacts. The letter cautions against using a per capita GHG threshold. The letter states that utilizing natural gas should be considered a significant energy impact under CEQA and that natural gas use results in harmful indoor air pollution. The letter further discusses that building electrification is feasible and effective mitigation to reduce Project GHG, energy, and health risk impacts. The letter also request that the City provide all notices related to the proposed Project to the group.</p>	
<p>UNITE HERE Local 11, April 17, 2023</p>	
<p>This letter states that it was written on behalf of UNITE HERE Local 11 and provides a summary of the Project Description. This comment states that the City should circulate the Draft EIR for a 65 day public review period. The letters states that the EIR should consider the proposed Project’s consistency with GHG and VMT assumptions under the GPU FEIR and discusses that the City has not updated its Climate Action Plan. The letter discusses that the EIR should discuss CARB’s 2022 Scoping Plan, SCAG’s 2024 RTP/SCS, SCAQMD’s 2022 AQMP, and SCAQMD’s updated Air Quality Analysis Guidance Handbook. The letters states that the EIR should consider all feasible mitigation measures and should provide substantial evidence why other mitigation measures are not considered. In addition, the letters states that the EIR should address the loss of urban tree canopies and provide additional measures to minimize tree removal and promote native landscaping. The letter states that the EIR should consider hotel-specific recycling and traffic demand management programs to reduce impacts related to the hotel operation. In addition, the letter states that if significant impacts occur, the City would be required to adopt a statement of overriding considerations. Local 11 requests all notices concerning any CEQA/land use decisions.</p>	<p>5.1, Air Quality 5.5, Greenhouse Gas Emissions 5.13, Transportation 5.15, Utilities and Service Systems 5.16, Mandatory Findings of Significance</p>
<p style="text-align: center;">INDIVIDUALS</p>	
<p>Pete, March 30, 2023</p>	
<p>This comment states that there is a lack of information on potential traffic issues related to the proposed Project. The comment states that if there is information about traffic volumes, patterns, and mitigation it should be provided to the residents.</p>	<p>5.13, Transportation</p>
<p>Pete, March 31, 2023</p>	
<p>This comment states the proposed Project should include a rooftop garden for residents, an added amenity, hobbies for residents onsite, passive cooling, and to expand outdoor space. The comment states that aesthetics and air quality should be considered.</p>	<p>5.1, Air Quality 5.16, Mandatory Findings</p>
<p>Sue Grasse, April 1, 2023</p>	
<p>This comment states that utilities should be undergrounded and the proposed Project should use less reflective materials on exterior building elevations. The comment states there will be air quality impacts from dust during construction and increased traffic, as well as noise impacts during construction and operation. The letter states there will be cracks in homes due to proposed Project earthmoving and the site is susceptible to liquefaction and asks how security in parking garages would be handled. The comment raises concerns regarding water use, trash/recycling, alternative transportation, and parking. The letter states that nearby cities should be consulted, as well as fire and police departments. The letter asks what type of recreation would be included, as well ask how many affordable units would be provided. The letter states there should be a community room, grocery store, and onsite preschool provided. The letter also states that the architecture should reflect historic architecture in Santa Ana.</p>	<p>5.1, Air Quality 5.3, Energy 5.4, Geology and Soils 5.7, Hydrology and Water Quality 5.9, Noise 5.11, Public Services 5.12, Parks and Recreation 5.13, Transportation 5.15, Utilities and Service Systems</p>

Comment Letter and Comment	Relevant EIR Section
Pete, April 4, 2023	
This letter states there should be no construction traffic through neighborhoods and mitigation should be provided for traffic impacts prior to or concurrent with construction.	5.13, Transportation
Unnamed	
This comment provides potential mitigation measures for the proposed Project including rainwater capture, installation of solar panels, and wind turbines. This comment states that shade, glare, and shadow impacts should be mitigated through building design. The comment states that the proposed Project should incorporate state of the art trash and recycling services to reduce waste. The letter states there should be dedicated rideshare spaces, shuttles for students, a people mover to nearby properties or pedestrian overpasses. The comment states that the proposed Project should pay for all infrastructure improvements. The letter states the proposed Project should convert the flood control channel between Sunflower Avenue and the railroad tracks from dirt excavate to concrete lined as well as provide rooftop basketball and expand bike trails. The letter states there should not be limited parking for the grocery stores, a traffic signal should be installed at Spruce and Segerstrom, and a police substation should be included in the proposed Project. The comment also discusses potential school impacts.	5.11, Public Services 5.13, Transportation 5.15, Utilities and Service Systems
David Mackler, April 16, 2023	
This letter states that the commenter was unable to attend the Scoping Meeting and was unaware it was occurring. The letter states that the commenter is excited and concerned regarding the proposed Project. The letter states that the commenter is concerned over the increased population density and the ability of existing utilities, public services, transportation systems, and infrastructure to support the proposed Project. The letter asks what the anticipated population is, what traffic would result, and what the impacts on infrastructure would be. The letter asks what street improvements would be made and states that a traffic light might be necessary. The letter also asks when the EIR would be ready for review, what zoning modifications are needed, whether the sewer would be able to accommodate increased demand. The letter asks how the proposed Project would impact existing utilities and what fees would be required.	3.0, Project Description 5.10, Population and Housing 5.11, Public Services 5.13, Transportation 5.15, Utilities and Service Systems
John and Lorena Vidaurri, April 16, 2023	
This comment states that the commenter has concerns regarding the 1.3 parking ratio, concerns regarding losing Vons, and concerns regarding traffic.	3.0, Project Description 5.13, Transportation
Dale Helvig, April 17, 2023	
This comment requests that the analysis compare the proposed density and limited parking impact to a reduced density with at least 2.0 parking spaces per unit. This comment believes the proposed Project would result in a strain on the area.	3.0, Project Description 6.0, Alternatives
Marisela Guzman, April 18, 2023	
This letter states that the commenter has multiple concerns regarding the proposed Project but understands that the City needs housing. The letter states that the intersection of Bristol Street and Sunflower Avenue will have a traffic issue, which will result in GHG emissions, air pollution, and street wear. The letter states that electricity and gas is already expensive and there have been blackouts, which would increase with the proposed Project. The letter states that the commenter is opposed to the hotel and disagrees with the decrease of commercial uses and underground parking. The letter states that there needs to be an increase in police officers and the proposed Project should provide a large grocery store like Vons. In addition, the letter states	3.0, Project Description 5.1, Air Quality 5.5, Greenhouse Gas Emissions 5.7, Hydrology and Water Quality 5.11, Public Services 5.13, Transportation 5.15, Utilities and Service Systems 6.0 Alternatives

Comment Letter and Comment	Relevant EIR Section
that the proposed Project should provide affordable housing units for Santa Ana residents. The letter states the commenter is concerned about water use and wants to make sure the proposed Project is required to conserve water. The comment states that 1.3 parking spaces per unit is not enough and requests that there is a Project alternative that includes fewer housing units and more commercial uses.	

Public Scoping Meeting

Pursuant to Section 15082(c)(1) of the CEQA Guidelines, the City of Santa Ana hosted a public scoping meeting for members of the public and public agencies to provide input as to the scope and content of the environmental information and analysis to be included in the Supplemental EIR for the proposed Project. The scoping meeting was held on March 30, 2023 from 5:30 p.m. to 7:00 p.m. at the McFadden Institute of Technology located at 2701 S. Raitt Street in Santa Ana. Approximately 60 residents attended the meeting and raised concerns about traffic, pedestrian safety, population growth, aesthetics, and cumulative impacts. Potential impacts related to transportation are described in Section 5.13, *Transportation*, impacts related to population growth are described in Section 5.10, *Population and Housing*, and cumulatively considerable impacts are evaluated throughout Chapter 5 of this Draft Supplemental EIR. In addition, a discussion of aesthetics is included in Section 5.16, *Mandatory Findings*. Comment cards received from the Scoping Meeting are included in Appendix A and summarized in Table 2-2, which also includes a reference to the EIR section(s) in which issues raised in the comment cards are addressed.

Table 2-2: Summary of Scoping Meeting Comment Cards

INDIVIDUALS	
Judy Bryant	
This comment asks whether the EIR would discuss impacts on neighborhoods within five to ten miles of the proposed Project, including air quality, noise, water resources, energy supply, and access to services. The comment states that the EIR should look at police presence onsite. This comment states that the proposed Project would result in a lot of revenue for the City of Santa Ana, but existing homes and services should be protected.	5.1, Air Quality 5.3, Energy 5.7, Hydrology and Water Quality 5.9, Noise 5.11, Public Services 5.15, Utilities and Service Systems
Jack Casey	
This comment states the EIR should consider how the proposed Project will be impacted by the homeless.	N/A
Cynthia Edwards	
This comment states that the commenter is concerned about the amount of residents that would result from the proposed Project, which would use water, electricity, and sewer, in addition to resulting in traffic. The commenter says there are already issues with the amount of electricity during hotter days. The commenter states that they are not opposed to redevelopment, however the proposed Project is dense and would include a population that would result in negative impacts to the area. The comment states that, in combination with South Coast Plaza, the proposed Project would result in increased traffic during rush hours, seasonally, and during weekends.	5.7, Hydrology and Water Quality 5.10, Population and Housing 5.13, Transportation 5.15, Utilities and Service Systems
Marianna Thomas	
The commenter states that the proposed Project would result in issues related to transportation due to the amount of cars needed by Project residents. The comment states that two cars per unit is realistic and would be too many cars for local streets.	5.13, Transportation

Mary Hernandez	
The commenter states that the site is underlain by sandy soils and is unstable. The commenter raises concerns regarding the population and density of the proposed Project and states that densely populated areas result in behavioral issues and increased crime. The commenter states that increased police presence is needed. The commenter also raises concerns regarding the increasing traffic and states that there is a lot of traffic during the morning, afternoons, and around Christmas time. The comment discusses that there are a lot of street racers and drunk drivers.	5.4, Geology and Soils 5.10, Population and Housing 5.11, Public Services 5.13, Transportation
Berny Maravilla	
This commenter states that more parking is needed, and 1.3 parking spaces is not enough.	3.0, Project Description
Nathan Hittle	
This commenter states that more parking is needed.	3.0, Project Description
Celia Chavez	
This commenter states that 3,700 units is too many, Vons should be kept, and a parking ratio of 1.3 is not enough.	3.0, Project Description
Armando Enriquez	
This comment states that the population will need more parking, there will be too many cars, and that they oppose the proposed Project.	3.0, Project Description
Katherine Freeman	
This comment states the commenter is concerned about toxic air from building demolition and asks what will be done to mitigate the dust/fumes from construction. This comment states that nearby residences would be impacted by trucks, noise, crowding, and eventually a population of over 10,000 people. This comment states that the amount of units should be reduced.	5.1, Air Quality 5.6, Hazards and Hazardous Materials 5.9, Noise 5.10, Population and Housing 5.13, Transportation 6.0, Alternatives

Additional comments were received by City staff which did not directly address CEQA topics or the Supplemental EIR. Those comments have been taken into consideration by the City of Santa Ana and have been communicated to the Project Applicant.

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. The Draft Supplemental EIR is being circulated for review and comment by the public and other interested parties, agencies and organizations for 45 days in accordance with Section 15087 and Section 15105 of the CEQA Guidelines. During the 45-day review period, the Draft EIR is available for public review digitally on the City’s website: <https://www.santa-ana.org/related-california-bristol-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

City of Santa Ana Public Library
26 Civic Center Plaza
Santa Ana, CA 92701

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

Ali Pezeshkpour, AICP, Planning Manager
City of Santa Ana Planning and Building Agency
PO BOX 1988
Santa Ana, CA 92702

Email: apezeshkpour@santa-ana.org

Final EIR

Upon completion of the 45-day review period, written responses to all comments related to the environmental issues in the Draft Supplemental EIR will be prepared and incorporated into a Final Supplemental EIR. The written responses to comments will be made available at least 10 days prior to the public hearing at which the certification of the Final Supplemental EIR will be considered. These comments, and their responses, will be included in the Final Supplemental EIR for consideration by the City, as well as other 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. The Final Supplemental EIR will be available for public review prior to its certification by the City. Notice of the availability of the Final Supplemental EIR will be sent to all who commented on the Draft Supplemental EIR.

2.7 ORGANIZATION OF THIS DRAFT EIR

The Draft Supplemental EIR is organized into the following chapters. To help the reader locate information of interest, a brief summary of the contents of each chapter of this Draft Supplemental EIR is provided.

- **Chapter 1 Executive Summary:** This chapter provides a brief summary of the Project area, the proposed Project, and alternatives. The chapter also provides a summary of environmental impacts and mitigation measures that lists each identified environmental impact, applicable Project design features, standard conditions, proposed mitigation measure(s) (if any), and the level of significance after implementation of the mitigation measure. The level of significance after implementation of the proposed mitigation measure(s) will be characterized as either less than significant or significant and unavoidable.
- **Chapter 2 Introduction:** This chapter provides an overview of the purpose and use of the Supplemental EIR, the scope of this Supplemental EIR, a summary of the legal authority for the Supplemental EIR, a summary of the environmental review process, and the general format of the document.
- **Chapter 3 Project Description:** This chapter provides a detailed description of the proposed Project, its objectives, and a list of Project-related discretionary actions.
- **Chapter 4 Environmental Setting:** This chapter provides a discussion of the existing conditions within the Project area.
- **Chapter 5 Environmental Impact Analysis:** This chapter includes a summary of the existing statutes, ordinances and regulations that apply to the environmental impact area being discussed and a summary of impacts identified by the GPU FEIR, identification of thresholds of significance, description of evaluation methodology, the analysis of the proposed Project's direct and indirect environmental impacts on the environment, including potential cumulative impacts that could result from the proposed Project; plans, policies, and programs that could reduce potential impacts; any applicable GPU FEIR mitigation measures, and the feasible Project specific mitigation measures that

would reduce or eliminate the significant adverse impacts identified. Impacts that cannot be mitigated to less than significant are identified as significant and unavoidable.

This chapter also summarizes the significant and unavoidable impacts that would occur from implementation of the proposed Project and provides a summary of the environmental effects of the implementation of the proposed Project that were found not to be significant. Additionally, this chapter provides a discussion of various CEQA-mandated considerations including growth-inducing impacts and the identification of significant irreversible changes that would occur from implementation of the proposed Project.

- **Chapter 6 Alternatives:** This chapter describes and analyzes a reasonable range of alternatives to the proposed Project. The CEQA-mandated No Project Alternative is included along with alternatives that would reduce one or more significant effects of the proposed Project. As required by the CEQA Guidelines, the environmentally superior alternative is also identified.
- **Chapter 7 Report Preparation and Persons Contacted:** This chapter lists authors of the Draft Supplemental EIR and City staff that assisted with the preparation and review of this document. This section also lists other people that were contacted for information that is included in this Supplemental EIR document.

2.8 INCORPORATION BY REFERENCE

In accordance with Section 15150 of the CEQA Guidelines 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 Municipal Code: The City of Santa Ana Municipal Code consists of regulatory, penal, and administrative ordinances of the City of Santa Ana. The Municipal Code guides the City's control of land uses, in concert with General Plan goals, objectives, and policies. The City's Zoning Code (Chapter 41 of the Municipal Code) identifies land uses permitted and prohibited according to the zoning category of particular parcels. The Municipal Code and Zoning Code are utilized throughout this document as a regulatory document governing development and land use activities within the City. Regulatory information from the Municipal Code and Zoning Code is cited in various sections and chapters of this Supplemental EIR.

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3. Project Description

3.1 PROJECT LOCATION

The 41.13-acre Project site is located within the southern portion of the City of Santa Ana (Figure 3-1, *Regional Location*) at 3600, 3606, 3732, 3701, 3719, 3810, 3814, 3820, and 3900 South Bristol Street and includes the following nine parcels: (Assessor Parcel Numbers [APNs]) 412-131-12, 412-131-13, 412-131-14, 412-131-16, 412-131-17, 412-131-22, 412-131-24, 412-131-25, and 412-131-26. The proposed Project is located in an unsectioned portion of Township 5 South, Range 10 West on the Newport Beach, CA U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle.

As shown on Figure 3-2, *Local Vicinity*, the Project site is bordered by MacArthur Boulevard to the north, Sunflower Avenue to the south, and Bristol Street to the east. The west side of the site is bordered by South Plaza Drive between MacArthur Boulevard and Callen's Common and by retail/parking lot development between Callen's Common and Sunflower Avenue to the south (Figure 3-3, *Aerial View*).

Vehicular access to the Project site is provided from Bristol Street, Callen's Common, MacArthur Boulevard, Sunflower Avenue, and South Plaza Drive. Callen's Common, an existing 1.02-acre private street, traverses the Project site in an east/west direction and connects Bristol Street to South Plaza Drive. MacArthur Boulevard, Sunflower Avenue, Bristol Street, and South Plaza Drive have existing sidewalks and ornamental landscaping.

Regional access to the Project site is provided from Interstate 405 (I-405) from the Bristol Street exit, which is approximately 0.5 mile to the south and from State Route 55 (SR-55) from the MacArthur Boulevard exit, which is approximately 1.25 miles to the east. The site is approximately 1.5 miles northwest of John Wayne Airport (SNA).

3.2 PROJECT BACKGROUND

The City of Santa Ana (City) General Plan Update (GPU) was adopted, and the GPU FEIR was certified, in April 2022 (State Clearinghouse Number 2020029087). The GPU 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 a comprehensive land use, housing, circulation and infrastructure, public service, resource conservation and public safety policies for the entire City. The updated General Plan Land Use Element guides growth and development (e.g., infill development, redevelopment, use and revitalization/restoration) within the plan area by designating land uses.

Any decision by the City affecting land use and development must be consistent with the GPU. Any action, program, or project is considered consistent with the GPU if, considering all its aspects, it will further the objectives and policies of the GPU or not obstruct their attainment. The GPU FEIR 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.

A project is consistent with the GPU if the development density does not exceed what was contemplated and analyzed for the parcel(s) in the certified GPU FEIR and complies with the associated standards applicable to that development density (State CEQA Guidelines Section 15183(i)(2)). Development density standards can include the number of dwelling units per acre, the number of people in a given area, floor area ratio (FAR), and other measures of building intensity, building height, size limitations, and use restrictions.

The Project site is located within the South Bristol Street Focus Area. The GPU (Land Use Element Page 60) describes that this focus area will 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. As shown on Figure 3-4, *South Bristol Street Focus Area and GPU Land Uses*, the Project site has a GPU designation of District Center-High (DC-5), which has a maximum FAR of 5.0, or 125 dwelling units per acre (du/ac) and a maximum height of 25 stories that allows up to 8,733,780 square feet (SF) of mixed uses, inclusive of residential uses, within the Project site. This level of redevelopment was included in the GPU FEIR buildout, and applicable mitigation measures were identified, as necessary, to reduce impacts.

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 General Plan 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."

As shown on Figure 3-5, *Existing Zoning Designations*, the existing zoning for the Project site is General Commercial (C-2) north of Callen's Common, and Commercial Residential (CR) and General Commercial (C-2) south of Callen's Common. Both designations include a range of commercial uses as well as all of the uses allowed in the Community Commercial (C-1) zone.

3.3 PROJECT OBJECTIVES

Section 15124(b) of the State CEQA Guidelines (Title 14, California Code of Regulations [CCR]) requires "A statement of objectives sought by the proposed project. A clearly written statement of objectives would help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and would aid the decision-makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project".

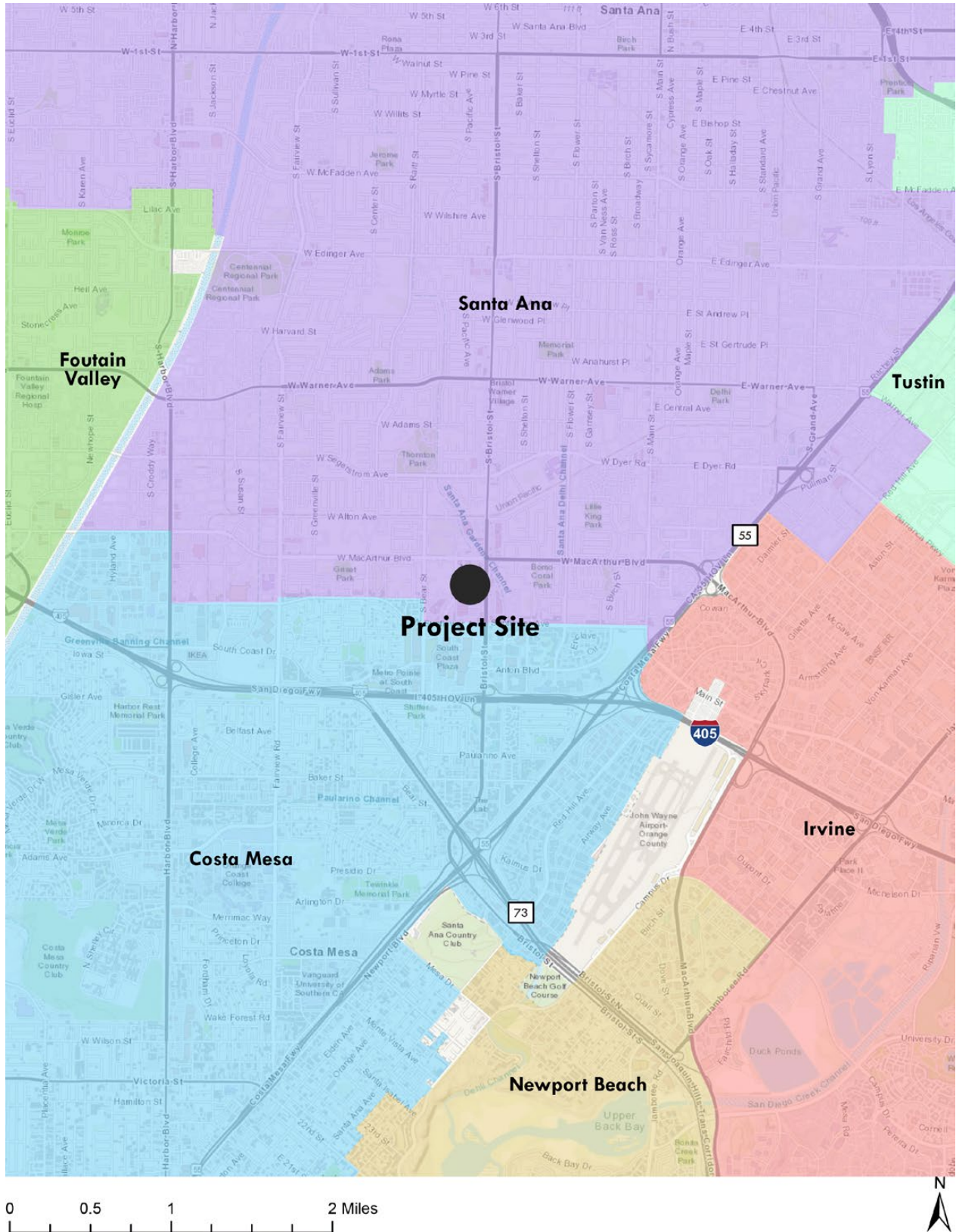
The proposed Related Bristol Specific Plan Project objectives include the following:

- Implement the vision and objectives established in the City of Santa Ana General Plan for the South Bristol Street Focus Area to create a southern gateway to the City. 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;
 - Realize an intense, multi-story presence along the Bristol Street corridor; and
 - Provide for mixed-use opportunities while protecting adjacent, established low density neighborhoods.
- Allow for the flexible redevelopment of the underutilized Project site to provide a balanced mix of residential, retail, and hospitality 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.
- Transform an auto-oriented shopping plaza with large surface parking areas to a community which 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.
- Develop high quality residential spaces that reflect modern lifestyles, while responding to the need for additional housing at a higher density in an area of the City planned for growth.

- Develop a project with a mix of land uses that stimulate economic activity, commerce, and new housing opportunities in the South Bristol Street Focus Area.
- Have a positive contribution to the local economy through new capital investment, the creation of new jobs, and the expansion of the tax base.
- Create a walkable mixed-use development to encourage and enhance pedestrian activity within the Specific Plan area and the local community.
- Enhance non-vehicular activity by providing onsite and offsite pedestrian and bicycle facilities that link with existing facilities and transit services.
- Improve existing infrastructure to support the Related Bristol Specific Plan consistent with the General Plan conditions.
- Provide a project that contributes to the creation of a vibrant urban core for the City and takes advantage of the site's location within the South Coast Metro area. Provide a project that contains vibrant and attractive community amenities, recreational and open space areas, and gathering spaces that are directly accessible to residents and the community.
- Provide 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 MacArthur Boulevard, Bristol Street, Sunflower Avenue and South Plaza Drive.

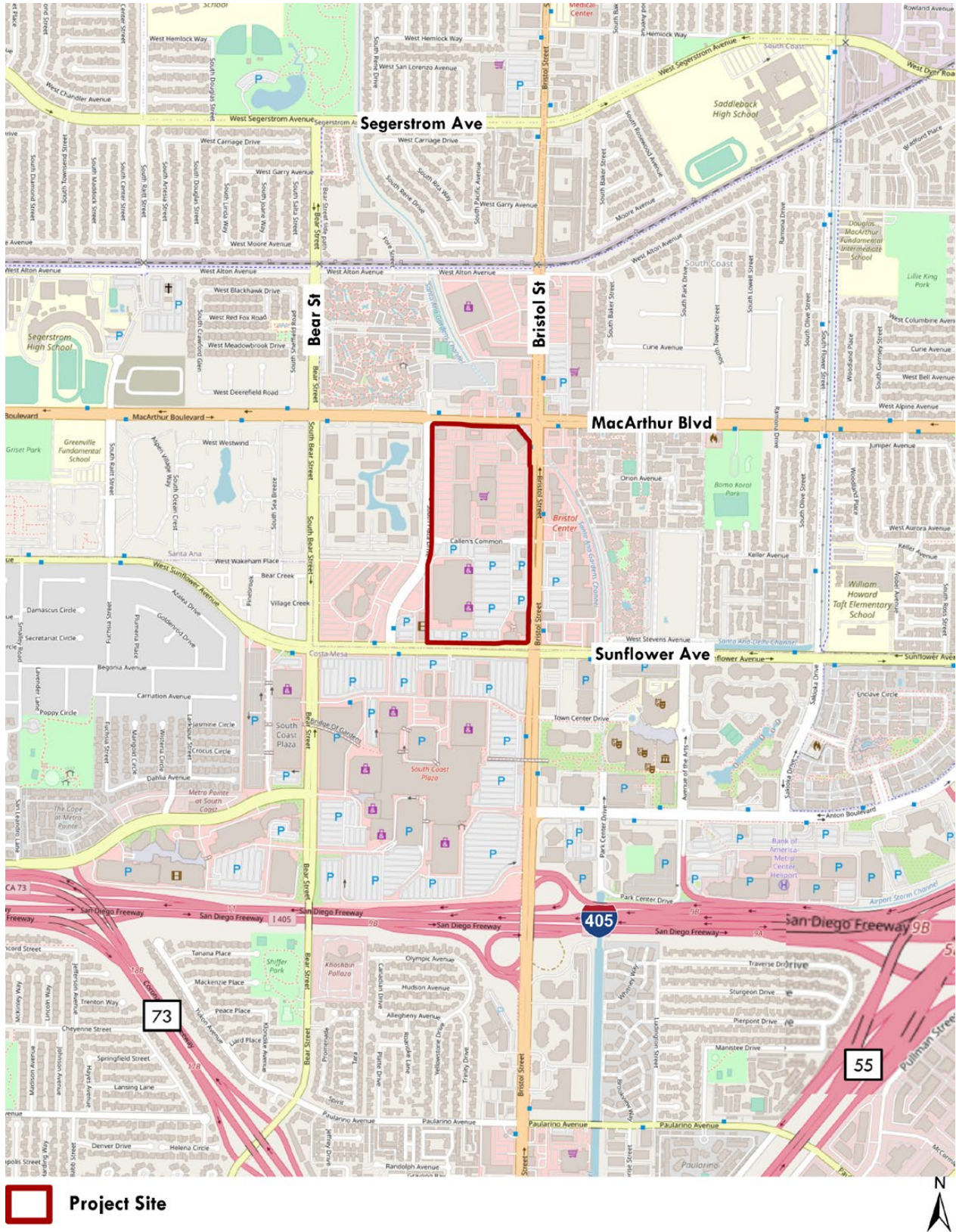
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Regional Location



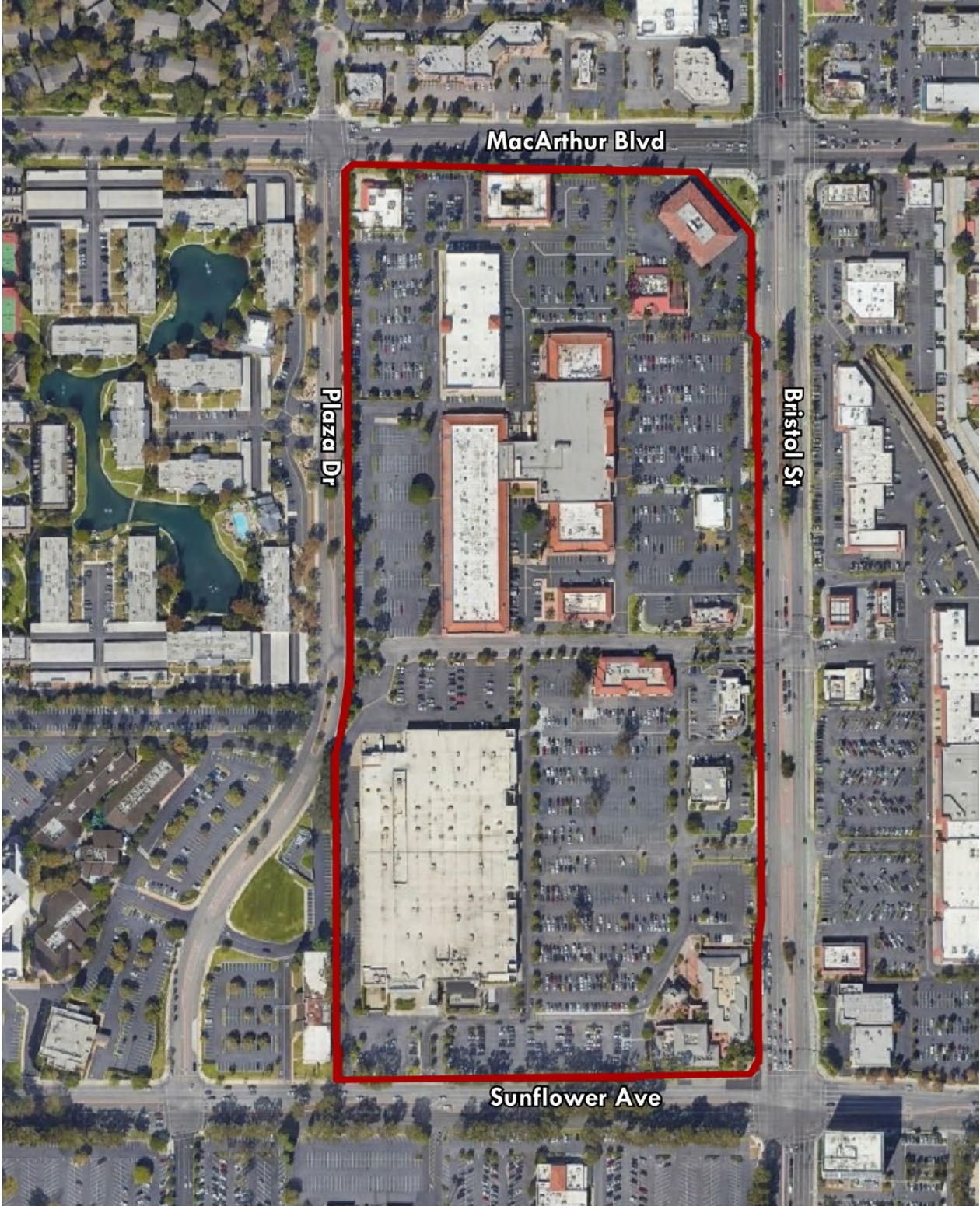
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Local Vicinity



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Aerial View

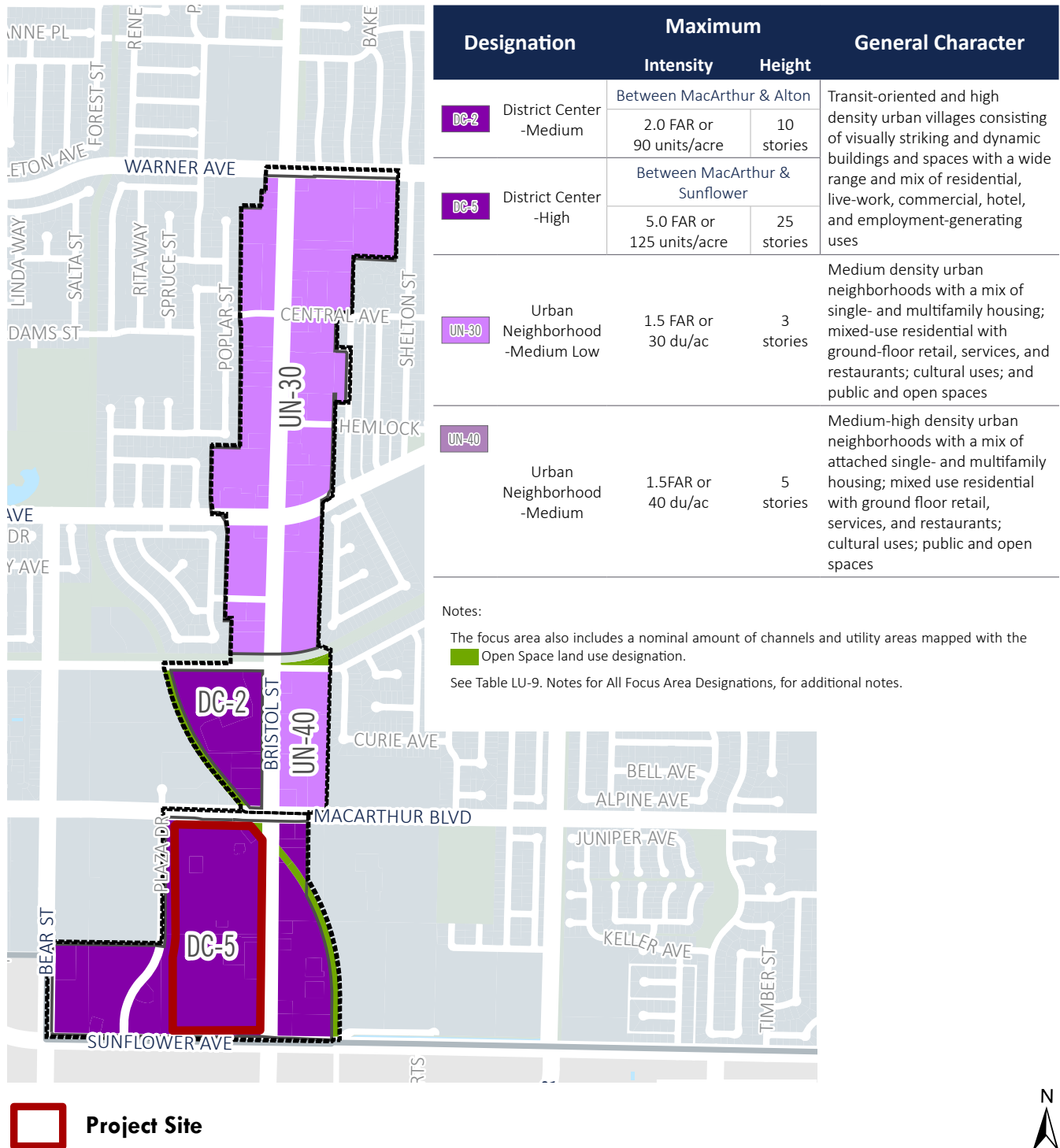


 Project Site



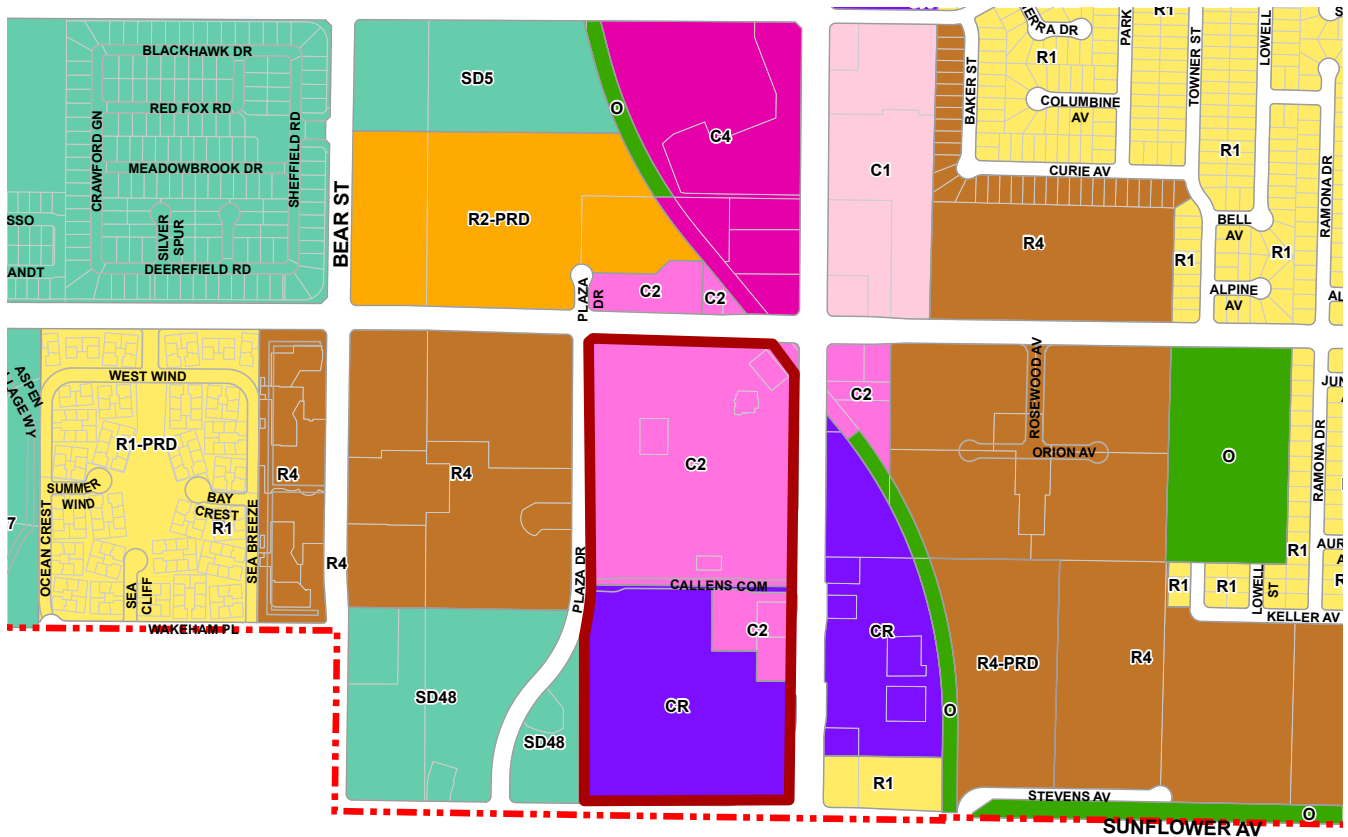
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South Bristol Street Focus Area and GPU Land Uses



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Existing Zoning Designations



Project Site



	A1	GENERAL AGRICULTURAL
	R1	SINGLE-FAMILY RESIDENCE
	R2	TWO-FAMILY RESIDENCE
	R3	MULTIPLE-FAMILY RESIDENCE
	R4	SUBURBAN APARTMENT
	RE	RESIDENTIAL ESTATE
	C1	COMMUNITY COMMERCIAL
	C2	GENERAL COMMERCIAL
	C4	PLANNED SHOPPING CENTER
	C5	ARTERIAL COMMERCIAL
	CR	COMMERCIAL RESIDENTIAL
	CSM	SOUTH MAIN STREET COMMERCIAL DISTRICT
	P	PROFESSIONAL
	GC	GOVERNMENT CENTER
	SD	SPECIFIC DEVELOPMENT

	M1	LIGHT INDUSTRIAL
	M2	HEAVY INDUSTRIAL
	O	OPEN SPACE LAND
	OZ1	METRO EAST MIXED USE OVERLAY ZONE
SPECIFIC PLANS		
	SP1	BRISTOL STREET CORRIDOR SPECIFIC PLAN
	SP2	HARBOR MIXED USE TRANSIT CORRIDOR SPECIFIC PLAN
	SP3	MIDTOWN SPECIFIC PLAN
	SP4	MAINPLACE SPECIFIC PLAN
SUFFIXES		
-B		PARKING MODIFICATION
-OZ1		METRO EAST MIXED USE OVERLAY ZONE
-OZ-M1/M2		TRANSIT ZONING CODE M1/M2 INDUSTRIAL OVERLAY ZONE
-PRD		PLANNED RESIDENTIAL DEVELOPMENT
-HDII		HEIGHT DISTRICT II
-MD		MUSEUM DISTRICT

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3.4 PROJECT CHARACTERISTICS

“Project,” as defined by the State CEQA Guidelines, means:

the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following: (1) . . . enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100–65700. . . .” (14 Cal. Code of Reg. § 15378(a).)

Specific Plan and Zoning Amendment

The proposed Related Bristol Specific Plan would replace the existing C-2 and CR zoning of the Project site and would define the allowable uses and development standards within its boundaries and would provide the processes and procedures for the review and approval of development within the Specific Plan area. Figure 3-6, *Proposed Zoning Designation*, shows the proposed Specific Plan zoning of the site. The proposed Specific Plan and zoning amendments are guided by the General Plan District Center-High (DC-5) land use designation of the Project site.

Summary of Proposed Specific Plan and Site Redevelopment

The 41.13-acre site is currently developed with 16 commercial buildings that total approximately 465,063 SF and the associated surface parking areas with limited landscaping. Current businesses include restaurants, a supermarket, banks, a dry cleaner, medical office, financial, and fitness uses.

The proposed Specific Plan would implement redevelopment of the site pursuant to the General Plan District Center-High (DC-5) land use designation. The proposed Specific Plan would demolish the existing development and related infrastructure on the site and provide a new mixed-use development that would result in a FAR of 2.7, which is below the DC-5 allowable FAR of 5.0, and would include the following:

- up to 3,750 multi-family residential units in multi-story structures;
- up to 350,000 SF of commercial uses;
- a 250 room hotel;
- a senior living/continuum of care use with up to 200 units;
- parking provided in free-standing and above- and below-ground parking structures and limited surface parking; and
- approximately 13.1 acres of publicly accessible common open space.

Proposed Phasing

The Specific Plan proposes redevelopment of the site over three phases that would last approximately ten years, with construction of Phase 1 beginning in 2026 and completion of Phase 3 in 2036. As shown in Figure 3-7, *Proposed Project Phasing*, the Phase 1 area is located south of Callen’s Common and extends to Sunflower Avenue. Phase 2 and Phase 3 are located north of Callen’s Common and extend to MacArthur Boulevard. The Phase 2 area is approximately one-third of the northern portion of the Project site and is bordered by MacArthur Boulevard to the north, Callen’s Common to the south, Bristol Street to the east, and Phase 3 of the proposed Project to the west. The Phase 3 area is bordered by MacArthur Boulevard to the north, Callen’s Common to the south, Phase 2 to the east, and South Plaza Drive to the west. The proposed development within each phase is listed in Table 3-1.

Table 3-1: Proposed Project Phasing

Use	Phase 1	Phase 2	Phase 3	Total
Residential (units)	1,375	856	1,519	3,750
Commercial (SF)	250,000	65,000	35,000	350,000
Hospitality (rooms)	250	--	--	250
Senior/Continuum of Care (units)	200	--	--	200

Phase 1: Phase 1 includes the demolition of all onsite buildings and infrastructure south of Callen’s Common, and subsurface excavation for construction of one to two levels of subterranean parking. Phase 1 assumes the construction of approximately 1,375 multi-family residential units, 250,000 SF of retail uses, a 250-key hotel, a 200-unit senior living/continuum of care structure, and a public open space area, as well as associated landscape improvements and infrastructure upgrades. All existing development north of Callen’s Common would remain operational during construction of Phase 1.

Phase 2: Phase 2 includes the demolition of all onsite buildings and infrastructure within the Phase 2 area of the site, and subsurface excavation for construction of one level of subterranean parking. Phase 2 assumes the construction of approximately 856 multi-family residential units, 65,000 SF of retail uses, public open space areas, as well as associated landscape improvements and infrastructure upgrades.

Phase 3: Phase 3 includes the demolition of onsite buildings and infrastructure within the Phase 3 area of the site. Subsurface excavation would occur for construction of one level of subterranean parking. Phase 3 assumes the construction of approximately 1,519 multi-family residential units, 35,000 SF of retail uses, public open space areas, as well as associated landscape improvements and infrastructure upgrades.

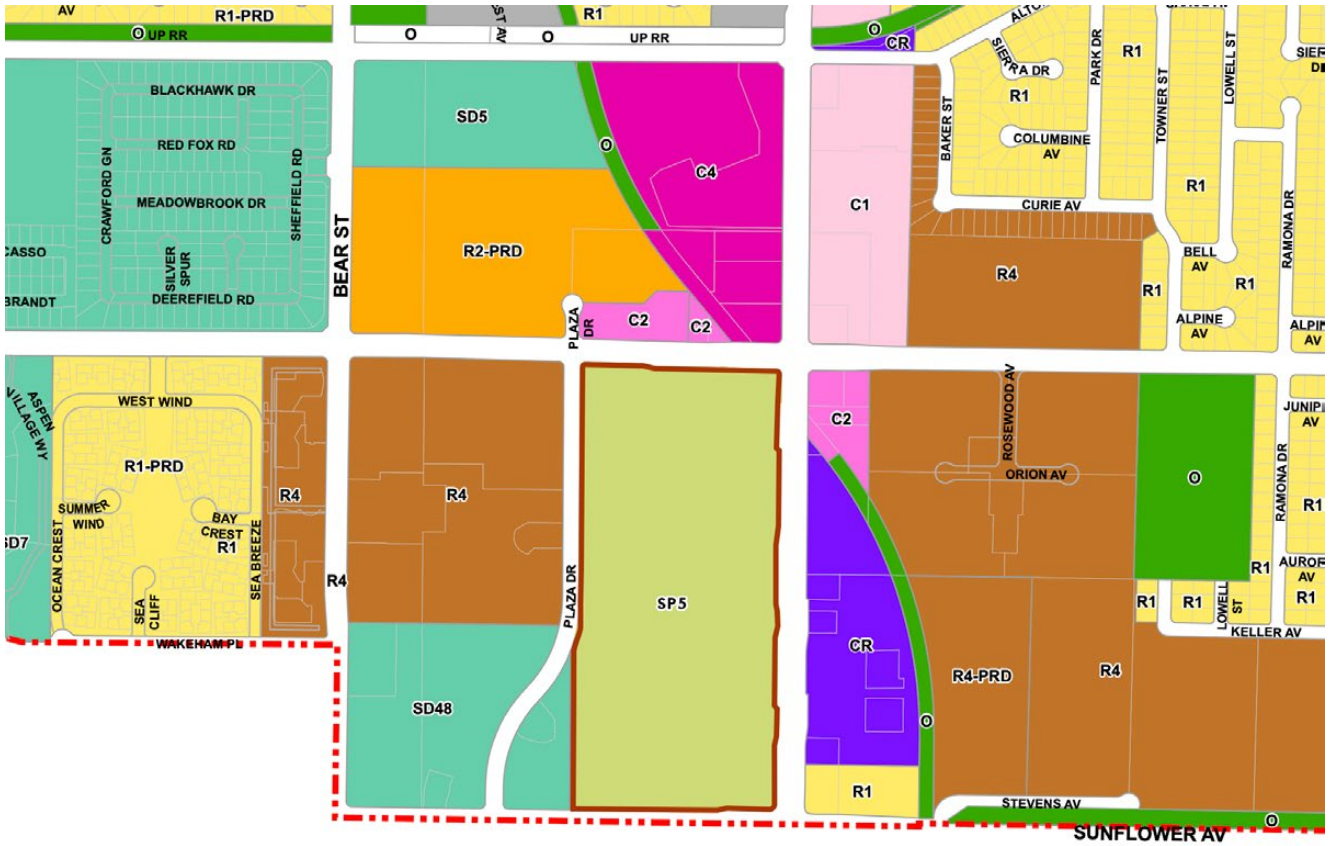
Proposed Specific Plan Land Uses

The proposed Specific Plan divides the planning area into 21 proposed development areas, each a different “Block”, as shown in Figure 3-8, *Proposed Specific Plan Land Use Blocks*. In addition, the proposed Land Use Plan is comprised of two Mixed-Use districts: a high intensity Mixed-Use/Village Core District, which is located south of Callen’s Common (and includes Blocks 11-21), and a lower intensity Mixed-Use/Residential District located to the north of Callen’s Common (including Blocks 1-10), as shown in Figure 3-9, *Proposed Specific Plan Mixed Use Districts*. Both Districts provide for a mixed-use development pattern, but the intensity of development character differs between them. The target residential units and non-residential square footage for both Districts as outlined by the proposed Specific Plan are listed in Table 3-2.

Table 3-2: Proposed Land Uses

Land Use	Proposed Intensity
Blocks 1-10 (Mixed-Use/Residential North District)	
Residential (units)	2,375 units
Private Amenity Building (in Bristol Central Park)	16,000 SF (target)
Commercial gross square feet (gsf)	100,000 SF
Bristol Central Park	2.5 acres
Greenlink	0.25 acre
Open Space (Programmable Roads and Parkways)	4.3 acres
Blocks 11-21 (Mixed-Use/Village Core District)	
Residential	1,375 units
Retail/Commercial (gsf)	250,000 SF
Hotel/Hospitality	250 rooms/150,000 SF
Senior/Continuum of Care (units)	200 units/225,000 SF
Bristol Plaza and Bristol Green, Retail Village Open Space	1.5 acres
Greenlink	0.3 acre
Open Space (Programmable Roads and Parkways)	4.3 acres

Proposed Zoning Designation



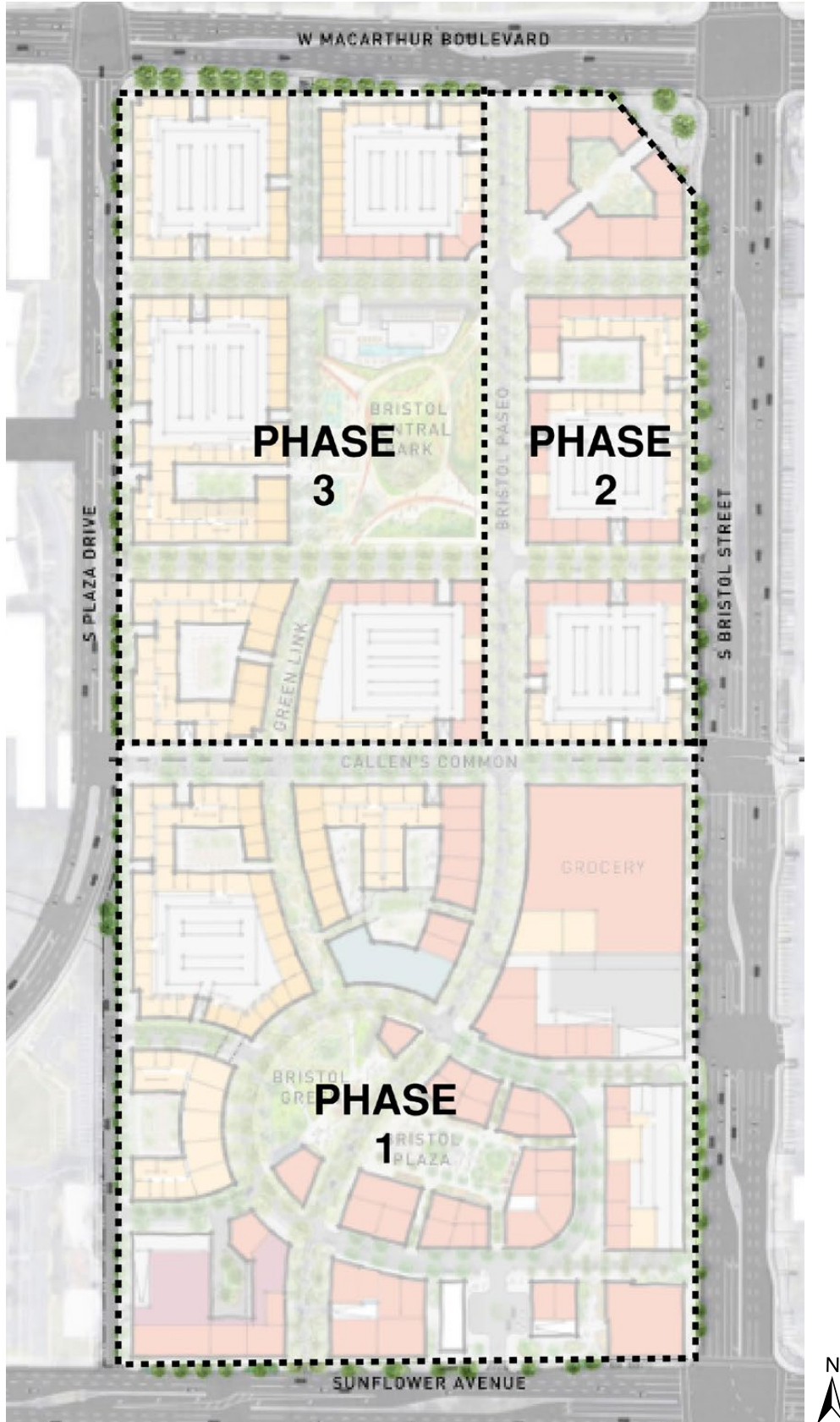
 **Project Site**



	A1	GENERAL AGRICULTURAL		M1	LIGHT INDUSTRIAL
	R1	SINGLE-FAMILY RESIDENCE		M2	HEAVY INDUSTRIAL
	R2	TWO-FAMILY RESIDENCE		O	OPEN SPACE LAND
	R3	MULTIPLE-FAMILY RESIDENCE		OZ1	METRO EAST MIXED USE OVERLAY ZONE
	R4	SUBURBAN APARTMENT	SPECIFIC PLANS		
	RE	RESIDENTIAL ESTATE		SP1	BRISTOL STREET CORRIDOR SPECIFIC PLAN
	C1	COMMUNITY COMMERCIAL		SP2	HARBOR MIXED USE TRANSIT CORRIDOR SPECIFIC PLAN
	C2	GENERAL COMMERCIAL		SP3	MIDTOWN SPECIFIC PLAN
	C4	PLANNED SHOPPING CENTER		SP4	MAINPLACE SPECIFIC PLAN
	C5	ARTERIAL COMMERCIAL		SP5	RELATED BRISTOL SPECIFIC PLAN DISTRICT
	CR	COMMERCIAL RESIDENTIAL			
	CSM	SOUTH MAIN STREET COMMERCIAL DISTRICT			
	P	PROFESSIONAL			
	GC	GOVERNMENT CENTER			
	SD	SPECIFIC DEVELOPMENT			

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Proposed Phasing Plan



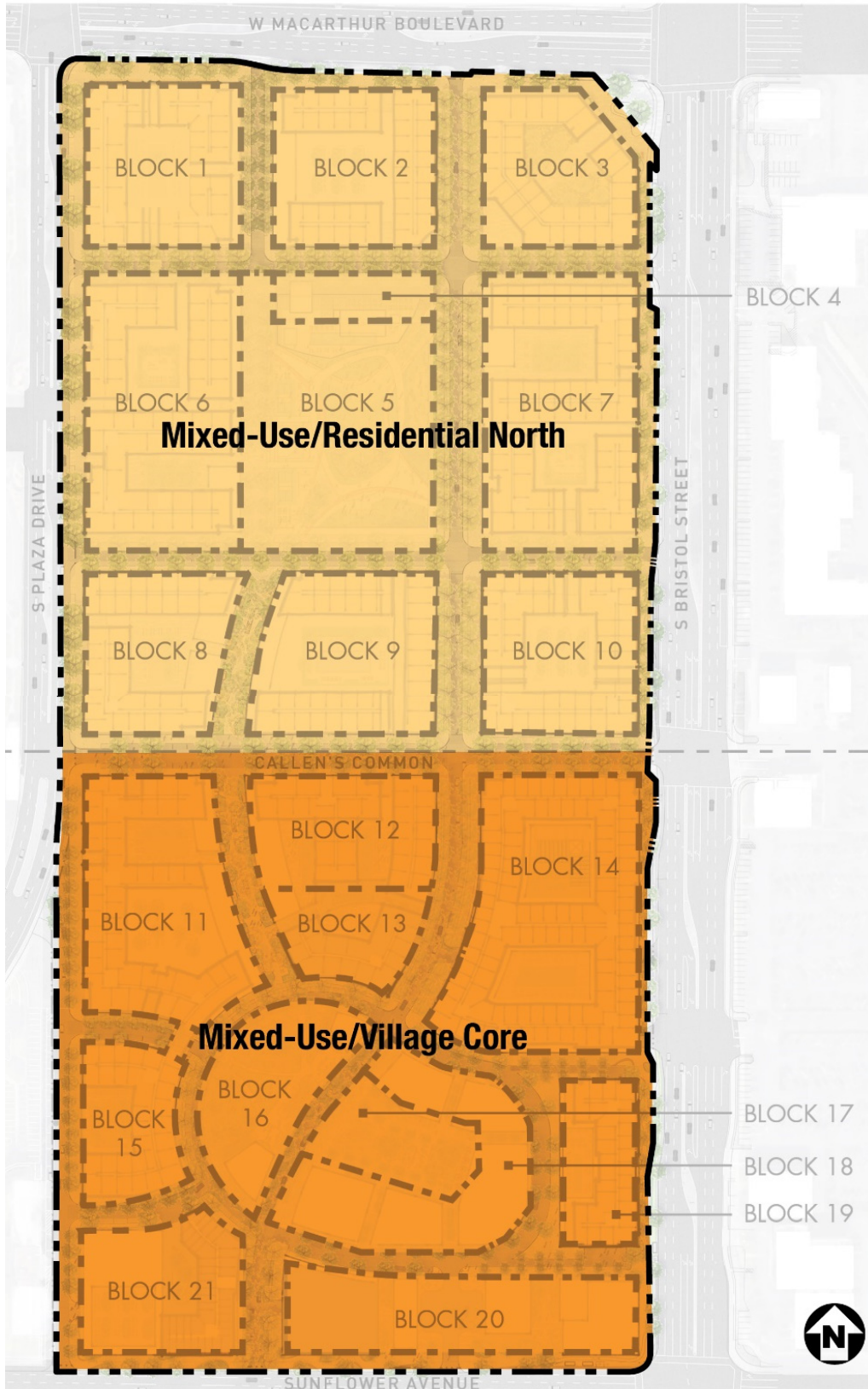
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Proposed Specific Plan Land Use Blocks



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Proposed Specific Plan Mixed Use Districts



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Illustrative and conceptual plans showing buildout of the proposed Specific Plan are provided in Figure 3-10, *Conceptual Plan*.

Residential: All residential development would be provided as for-rent multi-family uses. Residences would be in vertical mixed-use with residential on top of commercial uses and would include recreation areas, leasing offices, fitness rooms, pools/spas, business centers, etc. Residential uses would be located adjacent to public amenities including parks, open space areas, and the pedestrian-only green linkage (“Greenlink”) that connects the public open spaces throughout the Project site.

Commercial: The commercial uses would be centered around a pedestrian-focused circulation zone to promote ground floor retail with clear wayfinding and easy access from surrounding streets and parking garages. An administrative Police Department substation (no transfers or bookings) would be located within the commercial use area. The specific location would be determined prior to construction of the first phase of the proposed Project.

Open Space and Landscaping: Street trees would be installed along all streets within and adjacent to the Project site. New exterior lighting onsite would be provided to accent landscaping, signage, walkways, parking areas, and to provide for security. Pursuant to the proposed Specific Plan, private and common open space would be provided at a ratio of 200 SF per unit. The proposed Project would provide the following open space areas, as shown on Figure 3-11, *Proposed Open Space Plan*, that would be landscaped:

- **Bristol Green:** An approximately 0.7-acre open space area in the central portion of the Phase 1 area with landscaping, seating areas, and walkways, can include retail or kiosk uses.
- **Greenlink:** An approximately 0.6-acre landscaped pedestrian pathway linking the south and north areas of the Project site with shade trees, sitting areas, with lighted pathway connections to residences.
- **Bristol Plaza:** An approximately 0.9-acre urban plaza with seating, retail, outdoor dining, and landscaping.
- **Bristol Central Park:** An approximately 2.5-acre open space area located in Phase 3 with active and passive open space uses, walkways, seating, and a private recreation facility for residents.

Mobility: The proposed Project is intended to be a multi-modal walkable, bikeable community and would include an onsite sidewalk, bike lane, and street system that would connect to the existing adjacent roadways, as shown in Figure 3-12, *Proposed Circulation Plan*. The proposed Project would provide vehicular access to the site from the adjacent roadways by new driveways that would include: five unsignalized right-turn only driveways and one signalized full-access driveway along South Plaza Drive, two unsignalized right-turn only driveways along MacArthur Boulevard, three unsignalized right-turn only driveways along Bristol Street (one of which would be truck driveway), two signalized driveways on Bristol Street, and two unsignalized right-turn only driveways and one signalized driveway along Sunflower Avenue.

The proposed Project includes a Greenlink, which would be a landscaped pedestrian paseo linking the north and south areas of the site, and would have landscaping, seating areas, and connections to residences, open space, and commercial areas. The proposed Project would also include offsite bikeway improvements to provide a Class IV bike lane with protected medians along the Project frontages of Bristol Street, MacArthur Boulevard, and Sunflower Avenue.

Onsite roadways would be two travel lane roadways. Several of the proposed onsite roadways, Bristol Paseo (the primary north/south street), the looped road ringing Bristol Green and Bristol Plaza areas, and

the shared streets would be “programmable” streets; such that they could be used for special pedestrian events such as farmers’ markets, seasonal festivals, music events, etc.

Roadway Improvements: The proposed Project includes the following roadway improvements to the adjacent offsite roadway system:

- **Bristol Street** is a north-south six-lane roadway with raised landscaped medians that borders the site to the east. Project improvements include:
 - A Class IV bike lane with a planted buffer separation between vehicular and bicycle circulation
 - New curb cuts for ingress/egress to/from Bristol Street
 - Potential median modifications and/or signalization of driveway between Callen’s Commons and Sunflower Avenue
 - Landscaped setback with sidewalks and street trees
- **MacArthur Boulevard** is an east-west six-lane roadway with raised and striped medians that borders the site to the north. Project improvements include:
 - A Class IV bike lane with a landscaped buffer separation between vehicular and bicycle circulation
 - Bus stop improvements
 - Addition of an intersection for a new north/south local neighborhood roadway (Bristol Paseo) through the site
 - Curb cut at the intersection of the residential shared roadway
 - Construction of new site driveway intersection
 - Landscaped setback areas and street trees
- **South Plaza Drive** is a north-south four-lane roadway with raised landscaped medians that is west of the site between MacArthur Boulevard and Callen’s Common. Project improvements include:
 - New curb cuts for ingress/egress
 - Signalization at intersection with Callen’s Common
 - Landscaped setback areas and street trees
- **Sunflower Avenue** is an east-west six lane roadway that borders the site to the south. The centerline of the roadway is the boundary with the City of Costa Mesa to the south. Project improvements include:
 - Potential median modification and/or signalization of the proposed Bristol Paseo driveway, subject to improvements/realignment of South Coast Plaza driveway
 - Construction of eastbound left-turn lane on Sunflower Avenue at Bristol Paseo with the construction of a new driveway that would be realigned approximately 110 feet to the east of the existing driveway.
 - Installation of a five-phase traffic signal, subject to the improvements/realignment of the South Coast Plaza driveway.
 - Class IV bike lane with a landscaped buffer separation between vehicular and bicycle circulation
 - Bus stop improvements
 - Landscape and sidewalk improvements
 - Intersection with a new street neighborhood street segment
- **Callen’s Common** is an existing private road that roughly bisects the Project site. The east-west roadway has two travel lanes. Project improvements include:

- Expanded parkway with street trees and improved sidewalks
- Greenlink pedestrian crossing
- Reduction of travel lanes to a two-lane street between South Plaza Drive and the Bristol Paseo to allow for on-street parking
- Drop-off and loading areas
- Addition of pedestrian paths on both sides of the roadway
- Potential signalization of Callen’s Commons and South Plaza Drive

Parking: The majority of parking would be provided in shared/joint/reciprocal free-standing, subterranean and above-grade parking garages. Up to two levels of subterranean parking would be included in Phase 1 and one level of subterranean parking would be included in Phase 2 and Phase 3. The proposed Project also includes limited on-street parking. Parking would be provided at the ratios listed in Table 3-3.

Table 3-3: Proposed Parking Standards

Use	Ratio (min)
Commercial, inclusive of food service	4 spaces/1,000 SF
Senior Care/Assisted Living	0.6 space/unit
Residential, inclusive of Guest	1.3 spaces/unit
Hotel, inclusive of ancillary retail, food service, and conference	0.6 space/room
Office	3 spaces/1,000 SF

Infrastructure Improvements: The proposed Project includes installation of new water, sewer, drainage, gas, and electrical service lines and connection to the existing infrastructure in the adjacent street systems. As proposed, infrastructure improvements would include the following:

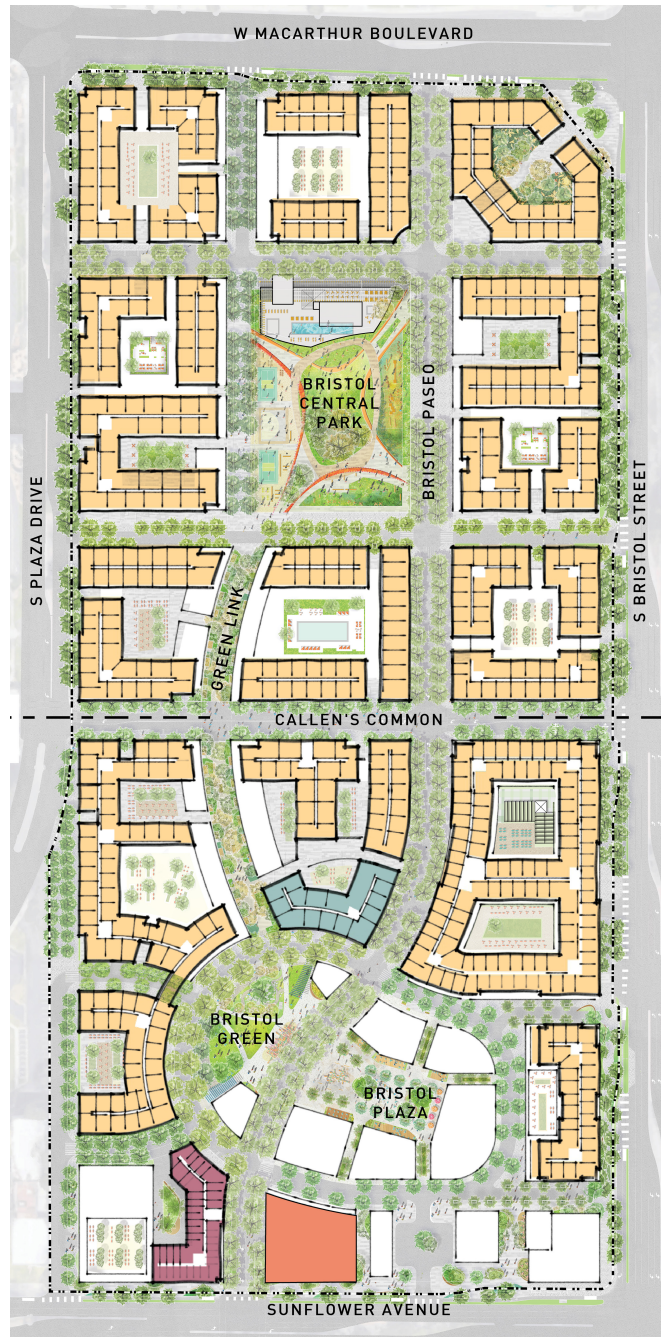
- **Water:** The proposed Project would install new onsite water infrastructure that would connect to water pipelines that are adjacent to the site. The onsite improvements include replacement of the existing 12-inch water line in Callen’s Common with a new 12-inch main and construction of a 12-inch water main in Bristol Paseo and connection of the new onsite infrastructure to the replacement line. The proposed Project also includes offsite infrastructure improvements that would replace a portion of the existing 12-inch water main in South Plaza Drive from MacArthur Boulevard to Sunflower Avenue with a 12-inch water main. The 12-inch water mains in Sunflower Avenue from South Plaza Drive to Bristol Street and Bristol Street from MacArthur Boulevard to Sunflower Avenue would be replaced “in-kind” with new 12-inch water mains.
- **Sewer:** The proposed Project would install a new onsite sewer system that would connect to the existing 78-inch Orange County Sanitation District (OCSD) sewer main in Sunflower Avenue.
- **Stormwater Drainage:** A storm drain system would be installed within the onsite roadways to convey the stormwater to proposed vegetated biotreatment systems on the site and then to the existing City storm drain systems in MacArthur Boulevard, South Plaza Drive, Sunflower Avenue, and Bristol Street. The vegetated biotreatment systems proposed for the Project involve a multi-stage treatment process of screening media filtration, settling, and biofiltration and have been sized to meet the required design storm flow rate and volume. In addition, the proposed Project would provide offsite improvements to upgrade the existing 54-inch reinforced concrete pipe (RCP) in Sunflower Avenue to a 72-inch RCP for 2,230 linear feet and the existing 42-inch RCP in South Plaza Drive to a 60-inch RCP for 320 linear feet.
- **Natural Gas and Electric:** The proposed Project would install new gas and electric infrastructure that would connect to the existing gas and electric facilities that are in the adjacent roadway easements surrounding the site and are provided by Southern California Gas and Southern California Electric, respectively.

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Conceptual Plan



Illustrative Ground Floor Plan



Illustrative Upper Floor Plan

KEY	
■	RESIDENTIAL
■	SENIOR CONTINUUM CARE
■	HOTEL
■	RETAIL



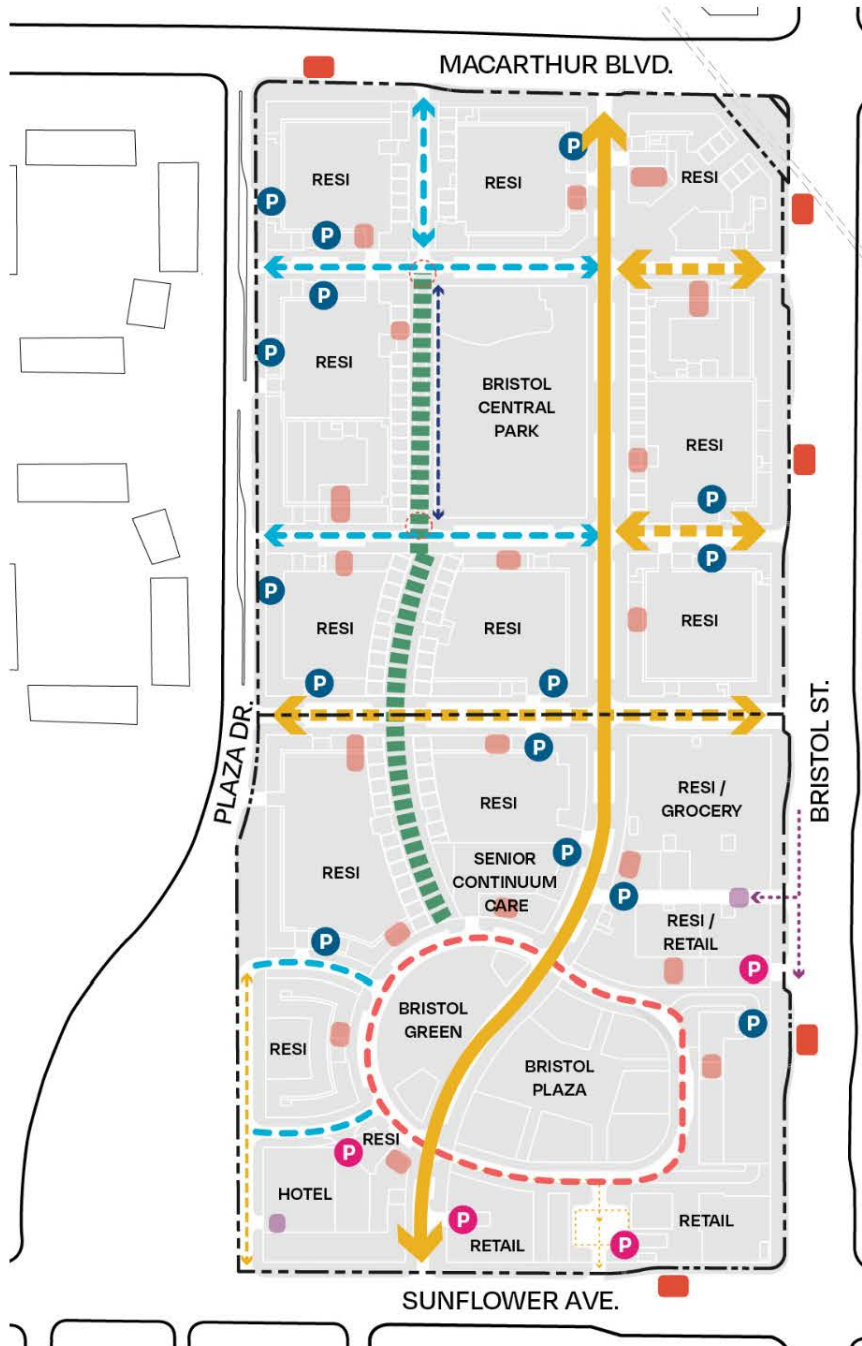
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Proposed Open Space Plan



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Proposed Circulation Plan



- | | | | |
|--|---------------------------------|--|------------------------------|
| | Neighborhood Street (Primary) | | Residential Parking Entrance |
| | Neighborhood Street (Secondary) | | Commercial Parking Entrance |
| | Neighborhood Street (Tertiary) | | Commercial Service Entrance |
| | Valet Parking Access | | Lobby Entrance |
| | Residential Shared Street | | Block |
| | Commercial Shared Street | | Curb Cut |
| | Greenlink | | Bus Stop |
| | Delivery / Service Access | | |
| | Emergency Access | | |
- Note: Terminology consistent with Urban Street Design Guide, by NACTO (National Association of City Transportation Officials)



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Construction Activities

The proposed Project would generally be constructed in three phases, corresponding to the phasing of new development, listed previously. Each construction phase would include: (1) demolition of existing buildings, pavement, removal of infrastructure and landscaping; (2) grading and excavation; (3) construction of drainage, utilities, and subgrade infrastructure; (4) building construction; and (5) paving and application of architectural coatings. With the exception of limited concrete pour activities, construction activities would be limited to the hours between 7:00 am to 8:00 pm, Monday through Saturday, excluding federal holidays, which would be subject to the City's Noise Ordinance (Municipal Code Section 18-314; Special Provisions).

Each construction phase includes excavation for development of building structures and subterranean parking structures, and most of the excavated material would be exported from the site. Grading and excavation would reach depths of 30 feet below ground surface (bgs) for construction of up to two levels of subterranean parking and installation of infrastructure. Phase 1 export would be approximately 640,550 cubic yards (cy) and import would be approximately 5,000 cy. Phase 2 export would be approximately 214,906 cy and import would be approximately 2,000 cy. Phase 3 export would be approximately 484,869 cy and import would be approximately 3,000 cy. The total export would be approximately 1,340,325 cy with an import of approximately 10,000 cy. Excavation activities include dewatering that would be required due to high groundwater levels in Santa Ana.

The proposed Project is planned to be implemented over a period of approximately ten years from the first quarter of 2026 through the third quarter of 2036. Construction of Phase 1 is planned to commence in the first quarter of 2026 with completion in the first quarter of 2030 (approximately 42 months). Land uses in Phase 2 and Phase 3 would be operational while Phase 1 is under construction. Phase 2 is expected to commence in the second quarter of 2030 with completion in the fourth quarter of 2032 (approximately 44 months). Phase 3 is planned to commence in the first quarter of 2033 with completion in the second quarter of 2036 (approximately 40 months).

3.5 DISCRETIONARY APPROVALS AND PERMITS

In accordance with Sections 15050 and 15367 of the State CEQA Guidelines, the City is the designated Lead Agency for the proposed Project and has principal authority and jurisdiction for CEQA actions and Project approval. Responsible Agencies are those agencies that have jurisdiction or authority over one or more aspects associated with the development of a proposed Project and/or mitigation. Trustee Agencies are state agencies that have jurisdiction by law over natural resources affected by a proposed Project.

The discretionary actions to be considered by the City as part of the proposed Project include:

- **Related Bristol Specific Plan Project Final Supplemental EIR:** Certification of the Final Supplemental EIR, as adopted by City Council Resolution, that tiers off the GPU FEIR (SCH# 2020029087) that was certified by the City on April 19, 2022.
- **Related Bristol Specific Plan:** Adoption of the Related Bristol Specific Plan to regulate future development in the site.
- **Zoning Map Amendment:** A zoning map amendment to change the zoning of the site from Regional Commercial (CR) and General Commercial (C-2) to Related Bristol Specific Plan District.
- **Subdivision Map:** A Vesting Tentative Tract Map (TTM) to create legal conveyable lots for airspace subdivision and condominium purposes, formalize the parcel boundaries, and provide for public rights-of-way for Project access.
- **Development Agreement:** A development agreement between the Applicant and the City

describing development rights, inclusionary housing plan, and public benefits for the development pursuant Government Code Section 65864 *et seq.*

The responsible agencies, trustee agencies, and other public agencies which may be required to grant approvals and permits or coordinate as part of implementation of the proposed Project include, but are not limited to:

- **Federal Aviation Administration (FAA):** Based on the location of the Project site and the proposed height of the buildings, the Applicant will file Form 7460-1, Notice of Actual Construction or Alteration, with the FAA. The FAA will use information provided in Form 7460-1 and other data to conduct an aeronautical review for the proposed Project.
- **Orange County Airport Land Use Commission (ALUC):** The Project site is within the Airport Environs Land Use Plan (AELUP) Notification Area for John Wayne Airport.
- **South Coast Air Quality Management District (SCAQMD):** Issuance of any permits to construct or permits to operate.
- **Santa Ana Regional Water Quality Control Board (RWQCB):** Issuance of a National Pollution Discharge Elimination System (NPDES) Permit and Construction General Permit. The Santa Ana RWQCB would also issue a Dewatering Permit consistent with the General Permit.
- **City of Costa Mesa Right-of-Way Construction/Encroachment Permit.** Issuance of a permit to allow for infrastructure construction activities in rights-of-way of the City of Costa Mesa.
- **Orange County Transportation Authority.** Issuance of permits associated with bus stop improvements.

4. Environmental Setting

The purpose of this section is to provide a “description of the physical environmental conditions in the vicinity of the proposed Project, as they exist at the time the Notice of Preparation (NOP) is published, from both a local and a regional perspective” pursuant to CEQA Guidelines Section 15125(a). In addition to the summary below, detailed environmental setting descriptions are provided in each subsection of Chapter 5 of this Draft Supplemental EIR.

4.1 PROJECT LOCATION

The 41.13-gross-acre Project site is located within the southern portion of the City of Santa Ana (Figure 3-1, Regional Location) at 3600, 3606, 3732, 3701, 3719, 3810, 3814, 3820, and 3900 South Bristol Street and includes the following nine parcels: (Assessor Parcel Numbers [APNs]) 412-131-12, 412-131-13, 412-131-14, 412-131-16, 412-131-17, 412-131-22, 412-131-24, 412-131-25, and 412-131-26. The site is generally bordered by MacArthur Boulevard, Bristol Street, Sunflower Avenue, and South Plaza Drive. Regional access to the Project site is generally provided via Interstate 405 (I-405) at the Bristol Street exit and from State Route 55 (SR-55) from the MacArthur Boulevard exit. The regional location of the Project site is shown in Figure 3-1 in Chapter 3.0, Project Description. Access to the Project site is provided by MacArthur Boulevard, Bristol Street, Sunflower Avenue, South Plaza Drive, and Callen’s Common. Sunflower Avenue has a jurisdictional boundary near the centerline with the City of Santa Ana on the north and the City of Costa Mesa on the south. The local vicinity is shown in Figure 3-2 in Chapter 3.0, Project Description.

4.2 PROJECT SITE DESCRIPTION

The Project site is relatively flat and located approximately 33 to 34 feet above mean sea level (amsl). The 41.13-acre site is developed with 465,063 square feet (SF) of predominately retail and restaurant uses, with some medical office, financial, and fitness uses. The site includes 3 multi-story buildings and 13 one-story buildings occupied with single and multiple tenants that include the following:

- **3900 South Bristol Street:** A single story commercial building constructed in 1972 with six commercial tenants.
- **3610 South Bristol Street:** A single story commercial building constructed in 1972 with two roll up truck bays.
- **3701 South Plaza Drive:** A single story commercial building constructed in 1974 and currently serves as a gym for LA Fitness company.
- **3620 South Bristol Street:** A three-story medical and dentist office constructed in 1973.
- **3600 South Bristol Street:** A 19,910 square foot two-story bank/office building constructed in 1972.
- **3608 South Bristol Street:** A single story restaurant space constructed in 1972.
- **3730 South Bristol Street:** A single story commercial building constructed in 1972 and currently occupied by Bank of America.
- **3638 South Bristol Street:** A single story commercial building constructed in 2003 and currently occupied by Sleep Number.
- **3710 South Bristol Street:** A single story commercial building constructed in 2001 and currently occupied by Jack in the Box.

- **1500 West MacArthur Boulevard:** A single story restaurant space constructed in 1984.
- **3814-16 South Bristol Street:** A two story commercial building constructed in 1979 and currently occupied by Plato’s Closet, Aloha Hawaiian BBQ, barbershop, and a hair salon.
- **3810 South Bristol Street:** A single story commercial building constructed in 2004 and currently occupied by McDonald’s.
- **3820 South Bristol Street:** A single story commercial building constructed in 1978 and currently occupied by Robbins Brothers.
- **3930 South Bristol Street:** A 30,129 square foot retail/office building with a 3,330 SF mezzanine and 6 loading docks that was developed in 1985.

The Project site contains limited ornamental landscaping and parking is provided in surface parking areas located near each of the buildings throughout the site. An aerial photograph of the Project site is shown as Figure 3-3 in Chapter 3.0, *Project Description*.

The Project site is located within the City of Santa Ana General Plan Update (GPU) South Bristol Street Focus Area and has a land use designation of District Center-High (DC-5), as shown as Figure 3-4 in Chapter 3.0, *Project Description*. The existing zoning designations for the Project site are General Commercial (C-2) north of Callen’s Common, and Commercial Residential (CR) and General Commercial (C-2) south of Callen’s Common, as shown as Figure 3-5 in Chapter 3.0, *Project Description*.

4.3 SURROUNDING LAND USES AND DEVELOPMENT

The Project site is located within an urbanized area and is surrounded by roadways followed by commercial and residential development. The surrounding land uses are described in Table 4-1.

Table 4-1: Surrounding Existing Land Use and Zoning Designations

	Existing Land Use	General Plan Designation	Zoning Designation
North	MacArthur Boulevard followed by commercial retail uses and multi-family residential uses.	District Center (DC), General Commercial (GC), Medium Density Residential (MR-15)	General Commercial (C-2), Planned Shopping Center (C-4), Two-Family Residence (R2)
West	South Plaza Drive followed by multi-family residential uses north of Callen’s Common and commercial retail uses south of Callen’s Common.	Medium Density Residential (MR-15) north of Callen’s Common and District Center (DC) south of Callen’s Common	Suburban Apartment (R4) north of Callen’s Common and Special Development 48 (SD48) south of Callen’s Common
South	Sunflower Avenue followed by South Coast Plaza in the City of Costa Mesa.	City of Costa Mesa, Regional Commercial	City of Costa Mesa, Planned Development Commercial (PDC)
East	Bristol Street followed by commercial retail and multi-family residential.	District Center (DC) followed by Low Density Residential (LR-7)	Commercial Residential (CR), General Commercial (C-2), Single-Family Residence (R1), and Suburban Apartment (R4)

4.4 AIR QUALITY

Climate and Meteorology

The City of Santa Ana is located within the South Coast Air Basin (Basin), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The Basin is a 6,600-square-mile coastal plain bounded by the Pacific Ocean to the southwest and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, and all of Orange County.

The ambient concentrations of air pollutants are determined by the amount of emissions released by sources and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality conditions in the area are determined by such natural factors as topography, meteorology, and climate, in addition to the volume of emissions released by existing air pollutant sources.

Criteria Air Pollutants

The California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (USEPA) currently focus on the following air pollutants as indicators of ambient air quality: ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), respirable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM₁₀), fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less (PM_{2.5}), and lead. These pollutants are referred to as "criteria air pollutants" because they are the most prevalent air pollutants known to be injurious to human health. Extensive health-effects criteria documents regarding the effects of these pollutants on human health and welfare have been prepared over the years.¹ Standards have been established for each criteria pollutant to meet specific public health and welfare criteria set forth in the Federal Clean Air Act (CAA). California has generally adopted more stringent ambient air quality standards for the criteria air pollutants (California Ambient Air Quality Standards [CAAQS] or state standards) and has adopted air quality standards for some pollutants for which there is no corresponding national standard (National Ambient Air Quality Standards [NAAQS]), such as sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

Existing Air Quality Conditions

The SCAQMD maintains monitoring stations within its boundaries that monitor air quality and compliance with associated ambient standards. The Project site is located within the monitoring boundary of the Anaheim-Pampas Lane monitoring station (SRA 17), which is 9.7 miles north of the Project site. The most recent 3 years of data is shown on Table 5.1-2 within Section 5.1, *Air Quality*, and identifies the number of days ambient air quality standards were exceeded in the area. Table 5.1-2 details that the federal PM₁₀ standard had no exceedances. The state PM₁₀ standard was exceeded 4 times in 2019, 5 times in 2020, and 1 time in 2021. The PM_{2.5} federal standard had 4 exceedances in 2019, 12 exceedances in 2020, and 10 exceedances in 2021. The 1-hour ozone state standard was exceeded 1 time in 2019, 6 times in 2020, and 0 times in 2021. The 8-hour ozone federal standard was 1 time in 2019, 15 times in 2020, and 0 times in 2021. In addition, the CO, SO₂, and NO₂ standards were not exceeded in this area during the 3-year period.

¹ Additional sources of information on the health effects of criteria pollutants can be found at CARB and USEPA's websites at <http://www.arb.ca.gov/research/health/health.htm> and <http://www.epa.gov/air/airpollutants.html>, respectively.

The Basin is currently designated as a nonattainment area for O₃, PM₁₀, and PM_{2.5} CAAQS, as well as the 8-hour O₃ and PM_{2.5} NAAQS. The Basin is designated as attainment or unclassified for the remaining CAAQS and NAAQS.

Current Emissions from Existing Onsite Uses. The Project site is currently developed with 16 commercial buildings that total approximately 465,063 SF. The estimated operation-source emissions from the existing commercial uses on the Project site are provided in Table 5.1-4 in Section 5.1, *Air Quality*.

Sensitive Land Uses

Existing offsite sensitive air quality receptors in the vicinity of the Project site consists of residences. The closest offsite residences are located 130 feet (40 meters) to the west of the site, as listed in Table 4-2.

Table 4-2: Closest Sensitive Receptors to the Project Site

Receptor Description	Distance and Direction from the Project Site
Multi-family Residences	130 feet to the west
Multi-family Residences	292 feet to the northwest
Multi-family Residences	460 feet to the east
Bomo Koral Park	1,580 feet to the east

Sources: Air Quality Assessment, Appendix B and Acoustical Assessment, Appendix N

4.5 CULTURAL RESOURCES

Historic

The Historic Resource Assessment that was prepared for the proposed Project (Appendix D) describes that the site is currently developed with 16 buildings that are surrounded by surface parking areas and ornamental landscaping. The existing onsite buildings were constructed between 1972 and 2004. Buildings A, B, C, D, E, F, and G were constructed more than 45 years ago but have been substantially altered since their original construction, and thus are not historic resources. The Historic Resource Assessment details that the Project site is not adjacent to any historic structures. Areas surrounding the site consist of modern multi-family residences and commercial buildings, including South Coast Plaza to the south.

Archaeologic

The chronology of coastal Southern California, which is inclusive of the Project area, is typically divided into three general time periods: the Early Holocene (11,000 to 8,000 Before Present [B.P.]), the Middle Holocene (8,000 to 4,000 B.P.), and the Late Holocene (4,000 B.P. to A.D. 1769). Orange County contains prehistoric sites dating from 9,000 to 10,000 years ago that show signs of human presence. Sites from 6,000 to 1,000 BC (Milling Stone period) are common in the coastal region of Southern California and at many inland locations.

A review of geologic mapping as detailed in the Archaeological Resources Assessment (Appendix E) indicates that the Project area is underlain by young Quaternary deposits, dating from the Late Holocene to the Late Pleistocene (Qya). The Late Holocene is contemporaneous with the duration of known human occupation of the area. Also, the records search conducted for the proposed Project identified one previously recorded prehistoric archaeological resource and three previously recorded historic-period archaeological isolates within 0.5-mile of the Project site. The Archaeological Resources Assessment Report (Appendix E) determined that due to the Holocene age of onsite soils, the presence of known archaeological and historical resources

within 0.5-mile from the Project site, and the former presence of agricultural-related structures onsite, the Project area is sensitive for prehistoric and historic-period archaeological deposits.

4.6 ENERGY

Electricity

The Southern California Edison Company (SCE) is the electrical purveyor in the City of Santa Ana. SCE provides electricity service to more than 14 million people in a 50,000 square-mile area of central, coastal and Southern California. As described by the Edison International 2022 Annual Report, the SCE electrical grid modernization effort supports implementation of California requirements to achieve carbon neutrality by 2045. In 2022 approximately 48 percent of power that SCE delivered to customers came from carbon-free resources (SCE 2022).

The GPU FEIR describes that in 2020 the total estimated electricity demand in Santa Ana, based on data provided by SCE, is estimated at 1,570,457,233 kilowatt hours (kWh) per year. The Project site is currently served by the electricity distribution system that exists along the roadways adjacent to the site.

Natural Gas

The Southern California Gas Company (SoCalGas) is the natural gas purveyor in the City of Santa Ana and is the principal distributor of natural gas in Southern California. SoCalGas estimates that gas demand will decline at an annual rate of 1.5 percent from 2022 to 2035 due to modest economic growth, mandated energy efficiency standards and programs, renewable electricity goals, and fuel substitution (CGEU 2022). SoCalGas designs its facilities and supplies to provide continuous service during extreme peak demands and has identified the ability to meet peak demands through 2035 (CGEU 2022).

The GPU FEIR describes that in 2020 the total estimated natural gas demand in Santa Ana, based on data provided by SoCalGas, was estimated to be 48.9 million therms per year. The Project site is currently served by the natural gas distribution system that exists within the roadways that are adjacent to the Project site.

4.7 GEOLOGY AND SOILS

Regional Setting

The Project region is located within the Los Angeles Basin which is part of the Peninsular Range Geomorphic Province of California. The Peninsular Ranges are characterized by a series of northwest trending mountain ranges separated by valleys. Range geology consists of granitic rock intruding the older metamorphic rocks. Valley geology is characterized by shallow to deep alluvial basins consisting of gravel, sand, silt, and clay. (Appendix G).

The Project region is located at the southern margin of the Los Angeles Basin, which ends abruptly with the Newport-Inglewood uplift. The uplift is characterized by coastal mesas of late Miocene to early Pleistocene marine sediments and late Pleistocene marine terrace deposits.

Faults and Ground Shaking

As described by the GPU FEIR, the City is located within the Peninsular Ranges Geomorphic Province that is traversed by a group of subparallel and fault zones trending roughly northwest. Major active fault systems—San Andreas, San Jacinto, Whittier-Elsinore, and Newport-Inglewood fault zones—form a regional tectonic framework consisting primarily of right-lateral, strike-slip movement. Santa Ana is situated between two major active fault zones—the Whittier-Elsinore Fault Zone to the northeast and the Newport-Inglewood Fault

to the southwest. Other potentially active faults near Santa Ana include the Elysian Park blind thrust; Chino-Central Avenue, San Joaquin Hills blind thrust, and San Jose, Cucamonga, Sierra Madre, and Palos Verdes faults. The GPU FEIR describes that Newport-Inglewood Fault is the dominant active fault that could significantly impact the City.

The Project site is not located within an Alquist-Priolo Fault Zone and no active faults are known to cross the site. The closest known active faults are associated with the San Joaquin Hills Fault, located approximately 1.3 miles northeast of the site and the Newport-Inglewood Fault Zone, approximately 4.1 miles southwest of the site (Appendix G).

Onsite Soils

Based on geologic maps, the Project site is situated on Holocene alluvial soils. The near surface soils are characterized by young axial channel deposits. The Geotechnical Report (Appendix G) describes that the site is generally comprised of three distinct soil zones to the maximum depth explored to 115 feet below ground surface (bgs) that include:

- Soil Zone 1 – From a depth of 0 to 30 feet, which consists predominantly of medium stiff to stiff lean clay and fat clay with medium high plasticity;
- Soil Zone 2 – From a depth of 30 to 80 feet, which consists of a mixed soil condition with interbedded silty sand, poorly-graded sands and lean clays;
- Soil Zone 3 – From a depth of 80 to 100 feet, which consists of very dense poorly graded sands.

Groundwater

The Geotechnical Report (Appendix G) describes that historic highest groundwater at the site has been mapped at a depth of about 5 feet bgs, and that groundwater during the geotechnical site investigation was encountered at a depth of between 12 feet and 16 feet bgs. However, that groundwater levels measured during the geotechnical investigation is a “snapshot” of the groundwater level and does not account for potential fluctuations in groundwater level due to seasonal and tidal variations.

Liquefaction and Settlement

As shown in GPU FEIR Figure 5.6-2, *Liquefaction Zones*, a majority of the City is mapped by the California Geological Survey as being potentially susceptible to liquefaction. The Geotechnical Report identifies that the Project site has a low liquefaction potential due to the underlying soil composition. Onsite soils include clayey soils to a depth of approximately 30 feet below the existing ground surface. Underlying soils are mixed soil with interbedded dense to very dense silty sand, poorly-graded sands, and lean clays. Due to the density of cohesive nature of the soils in the upper 50 feet, liquefaction potential is considered low even though the depth of groundwater is in the range of 12 to 16 feet bgs with a historic high of 5 feet bgs (Appendix G).

The GPU FEIR describes that potential hazard posed by seismic settlement and/or collapse in the City is considered moderate based on the compressibility of the underlying alluvial soils and the presence of shallow groundwater. Strong ground shaking can cause settlement of alluvial soils and artificial fills if they are not adequately compacted. Based on the onsite soils and groundwater conditions, the Geotechnical Report determined that static and seismic settlement is a potential concern of the Project site. The seismic settlement potential is estimated to be at least 2 inches (Appendix G).

Subsidence

The GPU FEIR describes that there is no pattern of lowering of the ground surface in Santa Ana and the risk of subsidence due to overdraft is generally low, with areas along the margins of the Santa Ana River and Santiago Creek most susceptible. Additionally, as described in the GPU Seismic Safety Element, the potential for area and focal ground subsidence due to earthquakes is relatively low in Santa Ana. The Project site is not located within or near a potential subsidence area, as shown in Exhibit 4, *Potential Subsidence Areas*, in the GPU Seismic Safety Element.

Landslides

The Geotechnical Report describes that the existing elevation of the Project site is a generally flat area that does not include any substantial slopes and is not located adjacent to any hillsides or slopes that could be susceptible to landslides. The site is not located within a mapped area considered potentially susceptible to seismically induced slope instability (Appendix G). In addition, the Project site is not adjacent to any hills or slopes that could be subject to a landslide.

Expansive Soils

The Project is in a semiarid region with marked seasonal changes in precipitation; most rain falls in winter, and there is a long dry season in summer and autumn. Therefore, the City's climate is such that a relatively high incidence of soil expansion is expected where soils contain the requisite clay minerals.

The GPU FEIR describes that due to the presence of alluvial materials in the City, there is some potential for expansive soils throughout Santa Ana and that expansive soils testing prior to grading is required as part of a soil engineering report, per the California Building Code (CBC) and the City of Santa Ana development and permitting requirements.

Expansion index testing was conducted on soil samples collected from the Project site, which determined that moderately to highly expansive soils are present onsite (Appendix G).

Paleontological Resources

The Natural History Museum of Los Angeles County database search completed for the proposed Project identified records of six recorded fossil localities in the general Project vicinity; however, none of these were documented in the Project site. The localities in the vicinity are associated with units mapped as uplifted older (Pleistocene) marine terraces (Qop).

The Project site is underlain by Holocene-aged axial channel deposits (Qya) dating from the Holocene to perhaps the Late Pleistocene. These soils are assigned a low paleontological resource sensitivity due to their relatively recent age. The Geotechnical Report details that only alluvium was encountered to a depth of 70 feet. However, a sedimentological shift was noted between 27 to 32 feet bgs. It is not known if the sedimentological shift indicates a presence of fossil-bearing older alluvium. Based on these findings, the Paleontological Resources Assessment determined that there is a low potential for paleontological resources near the ground surface, and that potential increases with depth.

4.8 GREENHOUSE GAS

Existing California GHG Conditions

California has significantly slowed the rate of growth of GHG emissions due to the implementation of energy efficiency programs as well as adoption of strict emission controls; but is still a substantial contributor to the U.S. emissions inventory total. CARB compiles GHG inventories for the State. Based upon the 2022 GHG

inventory data (i.e., the latest year for which data are available) for the 2000-2020 GHG emissions period, California emitted an average 369.2 million metric tons of CO₂e (MMTCO₂e) per year.

Existing City of Santa Ana GHG Conditions

The GPU FEIR describes that operation of existing land uses within the City and the related vehicle trips generate GHG emissions from tail pipe emissions, emissions from natural gas used for energy, heating, and cooking; electricity usage; area sources such as landscaping equipment and consumer cleaning products; water demand; waste generation; and solid waste generation. The GPU FEIR identified that the City generates approximately 2,212,612 MTCO₂e/year, which results in 4.8 MTCO₂e/year per service population (SP). Of this, 66 percent is generated by transportation sources (vehicle emissions).

Existing Project Site Conditions

The Project site is developed with 16 commercial buildings that generate GHG emissions from natural gas used for heating and hot water, electricity usage, related vehicle trips, use of landscaping equipment, use of consumer cleaning products, water demand, wastewater generation, and solid waste generation. The estimated GHG emissions from the existing development within each Phase area of the Project site are summarized in Table 5.5-2 in Section 5.5, *Greenhouse Gas Emissions*.

4.9 HAZARDS AND HAZARDOUS MATERIALS

The Project site was historically used for agriculture until the existing commercial buildings on the site were developed beginning in the early 1970s, and is currently developed with 16 commercial structures that are used for restaurants, a supermarket, banks, a dry-cleaning facility, medical and dental offices, and a variety of other retail establishments that use and store a limited volume of hazardous materials. The Phase I Environmental Site Assessment (Appendix J) identified three Recognized Environmental Conditions (RECs) that include a dry-cleaning facility, a potential existing Underground Storage Tank (UST), and removal of contaminated soil in 1984 that is suspected to be associated with the removal of previous USTs (previous USTs were removed in 1984 but did not document contaminated soil). In addition, the Project site was known to previously include a gas station.

The Phase II Environmental Site Assessments (Appendix K1 and K2) conducted onsite soil, soil gas, and groundwater testing throughout the site, including next to the dry-cleaning location. The testing identified that onsite soil samples in portions of the Project site exceed residential screening levels and in some cases commercial screening levels for total petroleum hydrocarbons- diesel range (TPH-d), TPH-motor oil range (TPH-mo), and select semi-volatile organic compounds (SVOCs) that are consistent with asphaltic material, and are likely attributable to the asphalt parking lots on the site, and soil that exhibited concentrations above residential screening levels and below commercial screening levels could be reused as backfill material for non-residential and non-sensitive-use areas.

Soil gas samples exceeded conservative residential screening levels for benzene and tetrachloroethene (PCE), but do not exceed the screening levels considering an attenuation factor (AF) of 0.001 that California Department of Toxic Substance control (DTSC) has applied for new residential construction. In addition, groundwater testing identified Methyl tert-butyl ether (MTBE) that exceeded the corresponding Maximum Contaminant Level (MCL) in one sample located at the northeast corner of the Project site at approximately 23.2 feet bgs, which is likely attributable to an offsite and upgradient LUST cleanup site, located northeast of the Project site. Also, a groundwater sample from the southern central portion of the Project site identified a TPH-d concentration, likely attributable to an offsite and upgradient source that exceeds the corresponding RSLs for “tap water” (drinking water). Additional information regarding groundwater quality is provided in Section 5.7, *Hydrology and Water Quality*.

Asbestos and Lead

The buildings within the Project site were constructed between 1972 and 2004; of which nine were constructed in the 1970s when asbestos and lead containing materials were commonly used; three structures on the Project site (3600, 3820, and 3900 South Bristol Street) have previously disposed of small quantities of asbestos containing materials (ACMs). Therefore, it is anticipated that some of the existing buildings on the Project site contain ACMs and lead-based paint and other lead containing materials.

John Wayne Airport

John Wayne Airport (SNA) is located approximately 1.4 miles southeast of the Project site, which is to the west of the primary aircraft approach corridor. The Project site is not located within SNA's Airport Safety Zone (shown on Figure 5.6-1 of Section 5.6, *Hazards and Hazardous Materials*). In addition, the Project site is located outside of both the airport's planned and actual (2019) 60 CNEL contours (Figures 5.6-2 and 5.6-3).

The Project site is located within the Airport Environs Land Use Plan (AELUP) Notification area, which requires notification of the Airport Land Use Commission (ALUC) for development projects and the FAR Part 77 Notification Imaginary Surface area (shown on Figure 5.6-4) that requires notification to FAA for any project that would be more than 206 feet in height above ground level or within the imaginary surface of a 100:1 slope extending outward for 20,000 feet from the nearest runway.

4.10 HYDROLOGY AND WATER QUALITY

Watershed

The Project site is in the Santa Ana River Watershed and the Newport Bay sub-watershed. The Santa Ana Watershed is subdivided into several smaller watersheds, and the Project site is in the Newport Bay Watershed. The Newport Bay Watershed spans 152 square miles from the foothills of the Santa Ana Mountains in the north to the Pacific Ocean in the south and from the Cities of Santa Ana and Costa Mesa on the west to the City of Lake Forest on the east. The Project site drains to the Santa Ana – Gardens - Delhi Channel and then to the Newport Back Bay.

Watershed Impairments: Section 303(d) of the Federal Clean Water Act (CWA) requires states to identify water bodies that are "impaired," or those that do not meet water quality standards and are not supporting their beneficial uses. Total Maximum Daily Loads (TMDLs) are then designed to serve as pollution control plans for these specific pollutants.

The Santa Ana – Gardens - Delhi Channel and the Newport Back Bay are included on the Section 303(d) List of Water Quality Impairments for: chlordane, DDT, nutrients, PCBs, sedimentation, malathion, toxicity, copper, indicator bacteria (WQMP Appendix M).

Groundwater Basin

The Project site overlies the Orange County Groundwater Basin that underlies an area of approximately 350 square miles, bordered by the Coyote and Chino Hills to the north, the Santa Ana Mountains to the northeast, the Pacific Ocean to the southwest, and terminates at the Orange County line to the northwest, where the aquifer system continues to the Central Basin in Los Angeles County (2020 Santa Ana Urban Water Management Plan [UWMP 2020]). The OC Basin is recharged primarily by four sources; local rainfall, storm and base flows from the Santa Ana River, purchased MWD imported water; and highly treated recycled wastewater. Basin recharge occurs largely in four recharge basins that are in or adjacent to the City of Anaheim. The Orange County Water District (OCWD) manages the Orange County Basin

through a Basin Production Percentage (BPP) that is determined each water year based on groundwater conditions, availability of imported water supplies, water year precipitation, Santa Ana River runoff, and basin management objectives.

Groundwater from the Orange County Basin provides approximately 76 percent of the City's water supply (2019-2020). The remaining supply comes from the Metropolitan Water District (23 percent) and recycled water (1 percent). As described by the UWMP, the water production capability of the basin has increased as a result of operation of the Groundwater Replenishment System in Fountain Valley, which turns wastewater into potable drinking water that is used for basin replenishment.

Groundwater Conditions

Per the Preliminary Geotechnical Investigation Report (Appendix G), the historic highest groundwater at the site has been mapped at a depth of about 5 feet bgs. Groundwater in August 2022 was encountered between a depth of 12 feet and 16 feet bgs.

The Phase II Environmental Site Assessments conducted groundwater testing, which identified MTBE that exceeded the corresponding residential MCL in one sample located at the northeast corner of the Project site at approximately 23.2 feet bgs, which is likely attributable to an offsite and upgradient LUST cleanup site, located northeast of the Project site. In addition, a groundwater sample from the southern central portion of the Project site identified a TPH-d concentration from an offsite source that exceeds the corresponding RSLs for "tap water" (drinking water).

Storm Drainage Facilities

The Project site is currently 90 percent impervious and 10 percent pervious (WQMP Appendix M). The existing topography of the Project site is relatively flat, with storm water draining via surface flow to existing gutters and onsite area drain systems. Drainage from the Project site currently flows to storm drains in South Plaza Drive, Sunflower Avenue, Bristol Street, and MacArthur Boulevard; and then to the Orange County Flood Control District Santa Ana – Gardens - Delhi Channel that drains to Newport Bay and the Pacific Ocean. The City of Santa Ana has determined that the existing storm drain in Sunflower Avenue and South Plaza Drive are hydraulically deficient. The City's 2018 Storm Drain Master Plan recommends upgrades to the storm drain infrastructure in these roadways.

Soil Infiltration

Onsite soils infiltration testing was performed during preparation of the Preliminary Geotechnical Investigation Report (Appendix G), which determined that the upper 25 to 30 feet of soils consist predominantly of medium to stiff lean clay and fat clay and based on percolation tests results are not suitable for infiltration. The testing identified infiltration rates of <0.10 inches per hour which is a low infiltration rate and considered infeasible to support drainage on the Project site.

Flood Zone, Tsunami, Seiche

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) for the Project area (06059C0279J) shows that the Project site is located within "Zone X," which is an area of minimal flood hazard potential outside of the 0.2 percent annual chance flood.

A tsunami is a series of ocean waves caused by a sudden displacement of the ocean floor, most often due to earthquakes. The Project site is over 5.9 miles from the Pacific Ocean, and outside of the Tsunami Hazard Zone identified by the California Department of Conservation (DOC 2023).

A seiche is a surface wave created when a body of water is shaken, usually by earthquake activity. Seiches are of concern relative to water storage facilities because inundation from a seiche can occur if the wave overflows a containment wall, such as the wall of a reservoir, water storage tank, dam, or other artificial body of water. There are no water bodies in the vicinity of the Project site, and no existing risks related to seiche flood hazards exist on or near the site.

4.11 LAND USE AND PLANNING

The Project site is developed with a shopping center that includes 16 commercial buildings (totaling 465,063 SF) with parking areas, vehicle circulation drives, and ornamental landscaping. The northern half of the site is developed with approximately 45 percent site coverage, and tenants include a grocery, gym, bank, and a variety of retail, service retail/commercial, medical, restaurant, and fast-food uses. The southern half of the site is developed with approximately 55 percent site coverage with a tenant mix of retail, service retail/commercial, restaurant, and fast-food uses. Existing major tenants on the southern half of the center include TJ Maxx, Ross Dress for Less, Cost Plus World Market, and Red Robin restaurant.

Existing General Plan Land Use and Zoning Designations

The Project site has a General Plan Land Use designation of District Center-High (DC-5) within the South Bristol Street Focus Area and is currently zoned General Commercial (C-2) and Commercial Residential (CR). The District Center-High land use designation applies to 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, or where such development is being encouraged. The development intensity standard applicable to this land use designation is a maximum floor area ratio (FAR) of 5.0 and 125 dwelling units per acre (du/ac). The District Center-High areas are intended to capitalize on the success of the South Coast Metro area and introduce mixed-use urban villages and encourage experiential commercial uses that are more walkable, bike friendly, and transit oriented.

Existing Transit-Oriented-Development (TOD) Setting

The proposed Project is located within a Transit Priority Area (TPA) as identified in the City of Santa Ana Traffic Impact Study Guidelines (September 2019) and is within the both the 2012 and 2045 High-Quality Transit Areas (HQTAs) as defined by SCAG. Furthermore, the General Plan's Mobility Element (April 2022) indicates key multimodal aspects and opportunities in the vicinity of the Project site, including public transit, bikeways, and pedestrian zones.

Surrounding Land Uses

The proposed Specific Plan area is located within an urban area that is fully developed. The Specific Plan area is located immediately north of major regional activity hubs including South Coast Plaza, Segerstrom Center for the Arts, and a mix of commercial and residential uses in the Cities of Costa Mesa and Santa Ana. The land uses immediately adjacent to the Specific Plan area include the following:

- North:** MacArthur Boulevard (a 6-lane major arterial) borders the site to the north, followed by commercial and multi-family residential uses. Areas across MacArthur Boulevard from the site are within the City of Santa Ana.
- East:** South Bristol Street (a 6-lane major arterial) borders the site on the east. Land uses east of Bristol Street include retail commercial uses and multi-family residential uses within the City of Santa Ana.

South: Sunflower Avenue (a 6-lane major arterial) borders the site to the south. Commercial uses are located south of Sunflower Avenue within the City of Costa Mesa.

West: South Plaza Drive (a 4-lane local roadway) borders the site to the west. Multi-family residential uses and South Coast Village are located west of South Plaza Drive.

4.12 NOISE

Existing Noise Levels

To assess the existing noise level environment, short-term noise measurements were taken at 6 locations and 24-hour noise level measurements were taken at 4 locations, which are shown in Figure 5.9-1 in Section 5.9, *Noise*. A description of these locations and the existing noise levels are provided in Table 5.9-4 in Section 5.9, *Noise*. Additionally, the average daily noise levels along roadway segments proximate to the Project site are included in Table 5.9-5 in Section 5.9, *Noise*. As shown, the existing traffic-generated noise levels on Project-vicinity roadways currently ranges from 53.9 dBA CNEL to 69.5 dBA CNEL 100 feet from the centerline.

Sensitive Receptors

Noise sensitive receptors are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include: residences, schools, hospitals, and recreation areas. Existing offsite sensitive noise receptors where someone can remain for 24-hours in the vicinity of the Project site consists of residences. The closest offsite residences are located 130 feet (40 meters) to the west of the site as listed in Table 4-2.

John Wayne Airport

As described previously, John Wayne Airport is located approximately 1.4 miles southeast of the Project site, which is to the west of the primary aircraft approach corridor. The Project site is located outside of both the airport's planned and actual (2019) 60 CNEL contours (Section 5.6, *Hazards and Hazardous Materials*, Figures 5.6-2 and 5.6-3). In addition, the General Aviation Noise Ordinance restricts airport operations between 11:00 p.m. and 7:00 a.m., to limit the hours of noise generated by the airport.

4.13 POPULATION AND HOUSING

Population

The California Department of Finance (DOF) estimates that the City of Santa Ana 2022 population was 308,459 persons, representing 9.75 percent of Orange County's total population. The Center for Demographic Research estimates that the City's population will increase to 360,077 in 2045, which is a 16.7 percent increase. In comparison, the County of Orange is projected to have an 11.8 percent increase in population between 2022 and 2045.

Housing

The California Department of Finance (DOF) estimates that the City of Santa Ana contained 81,082 housing units in 2022. Of the housing units within the City of Santa Ana 44.2 percent are detached single family housing units and 34.2 percent are multi-family units within buildings containing more than five units. In addition, the California DOF details that the in 2022 City had an average household size of 3.89 persons per household. In comparison, the County had an average household size of 2.87 persons per household.

The GPU FEIR assumes a 2.41 persons per household for multi-family residential uses to determine potential growth associated with implementation of the GPU.

The Census Factfinder 2021 information for the City identifies that 45.7 percent of the residences within the City are owner occupied units and 54.3 percent are renter-occupied units and the California DOF that the City of Santa Ana had a vacancy rate of 3.5 percent in 2022.

Employment

The City of Santa Ana is estimated to contain 159,980 employment opportunities as of 2019. The SCAG regional growth projections anticipate the number of jobs in the City of Santa Ana to increase by 7.8 percent to 172,400 jobs in the year 2045.

The SCAG 2019 Local Profile for Santa Ana identifies that only 20.8 percent of Santa Ana residents work and live in the City, while 79.2 percent commute to other places. Of the commuters residing in Santa Ana, the largest percentage commute to the City of Irvine (12.2 percent), Anaheim (6.8 percent), Orange (5.5 percent), and Costa Mesa (5.3 percent).

Jobs – Housing Ratio

The City's GPU FEIR 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. The City of Santa Ana is currently jobs rich with approximately 78,792 housing units and 158,980 jobs in 2019, which results in 2.0 jobs per housing unit.

4.14 PUBLIC SERVICES

Fire

Fire protection and emergency medical services in the City of Santa Ana are provided by the OCFA through a contract for services. The OCFA provides fire suppression, emergency medical, rescue, fire prevention, hazardous materials coordination, and wildland management services. OCFA serves 23 cities in Orange County and all unincorporated areas. Within the City of Santa Ana, OCFA provides services from 10 city-owned fire stations.

There are six city-owned fire stations located within approximately 4 miles of the Project site. Station 76, which is located 0.5 mile from the Project site, is the first responding station and Station 77, which is 2.2 miles from the site is the second responding station to the Project site. Both Stations 76 and 77 have Advance Life Support capabilities. In addition, at least two members of each station's daily staff are paramedics. The location, equipment, and staffing of the Santa Ana fire stations within approximately 4 miles of the Project site are provided in Table 5.11-1 in Section 5.11, *Public Services*.

To manage fire services throughout the City an OCFA division chief serves 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. Also, an administrative captain, administrative assistant, nurse educator, and a fire community relations and education specialist (bilingual) are assigned to serve the City of Santa Ana.

As provided by the OCFA 2022 Statistical Annual Report, there were 40,224 calls for service from the 10 fire stations in the City in 2022. Of the calls for service, 56.8 percent (22,835) were for emergency medical calls, 1.8 percent (734) were for fire incidents, and 17.5 percent (7,035) were for other incidents, which includes: cancelled service calls, ruptures, hazardous conditions, false alarms, and miscellaneous calls.

The OCFA 2022 standard for response is 8:30 minutes at the 90th percentile. In 2022 the 90th percentile response time for Station 76 was 8:11 minutes and 8:53 minutes for Station 77.

Law Enforcement

The Santa Ana Police Department provides police services throughout the City. The Police Department headquarters is located west of City Hall (60 Civic Center Plaza), which is approximately 4.1 miles north of the Project site. The Police Department also has the following additional policing facilities (as shown on Figure 5.11-1, *Existing Police Facilities*):

- Westend Substation located at 3750 West McFadden Avenue, which is 4.4 miles from the Project site;
- Southeast Substation located at 1780 East McFadden Avenue, which is 4.8 miles from the Project site; and
- Santa Ana Police Athletic and Activity League Community Center located at 2627 West McFadden Avenue, which is 3.6 miles northwest of the Project site.

The Police Department is divided into four policing districts, as listed below. The Project site is located within the Southcoast division:

- 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

In 2022, the Santa Ana Police Department had 302 officers, which included 168 members in the Field Operations Bureau and 134 patrol officers (SAPD 2023).

In 2022, officers responded to 126,973 calls for service and initiated 51,739 community engagement contacts and enforcement actions, which totaled 178,712 policing activities. In 2022, the average emergency response time was 5:22 minutes.

School Services

The Project site is located within the Santa Ana Unified School District (SAUSD) boundary, which serves a 24 square mile area and has a total of 57 schools, including: 26 elementary schools, 2 K-6 schools, 4 K-8 schools, 8 intermediate schools, 7 high schools, 4 educational options secondary schools, 1 dependent charter, 1 child development center, 3 early childhood education programs, and 1 K-6 deaf and hard of hearing regional program (SAUSD 2022).

According to the California Department of Education, SAUSD had an enrollment of 44,102 students in the 2021/2022 school year (CDE 2023). The Project site is in the attendance areas of Jefferson Elementary School (1522 West Adams Street), which is approximately 1.4 miles from the Project site; McFadden Institute of Technology (2701 South Raitt Street), which is approximately 1.5 miles from the Project site; and Segerstrom High School (2301 West MacArthur Boulevard), which is approximately 1.0 mile from the Project site (SAUSD 2022). Table 5.11-3 in Section 5.11, *Public Services*, shows the total capacity, the 2021-2022 school year enrollments, and the existing remaining capacity for between 368 and 911 additional students.

Library Services

The City of Santa Ana is served by two libraries: the Main Library (26 Civic Center Plaza) which is 4.3 miles north of the Project site, and Newhope Library Learning Center (122 North Newhope Street) which is 5.5 miles northwest of the Project site.

The Main Library is 39,790 SF and has amenities such as computer labs with internet access, a learning center, and the Santa Ana History Room. The History Room collects, preserves, and makes available materials of enduring historical value relating to the development of the City of Santa Ana and Orange County. The City of Santa Ana is planning the restoration and modernization of the existing Main Library.

The Newhope Library Learning Center is 10,600 SF and includes computer labs with internet access, a learning center, and a TeenSpace. TeenSpace is a mentoring program aimed at keeping underserved Santa Ana youth off the streets, in school, and focused on college and career plans.

4.15 PARKS AND RECREATION

The City of Santa Ana Parks Master Plan describes that the City has approximately 370.8 acres of developed park and recreational space that ranges in size from 0.1-acre to 65.3 acres within 44 parks; and that the City has plans to construct two additional parks. As discussed in Section 5.11, *Population and Housing*, the City had a population of 308,459 in 2022. Therefore, the City has approximately 1.2 acres of public park and/or recreational space per every 1,000 residents.

There are no existing parks within the South Bristol Street Focus Area and the southwestern portion of the Project site is located within a park-deficient area as identified in the GPU FEIR. However, City currently has six existing parks that provide 69.48 acres of parkland within two miles of the Project site, as listed in Table 5.12-1 in Section 5.12, *Parks and Recreation*.

4.16 TRANSPORTATION

Existing Trips

The Project site is currently developed with 16 commercial buildings that total approximately 465,063 SF. As shown on Table 5.13-3 in Section 5.13, *Transportation*, the existing onsite uses result in approximately 15,490 daily trips.

Existing Roadways

The public roadway network serving the Project site includes Bristol Street, South Plaza Drive, Bear Street, MacArthur Boulevard, and Sunflower Avenue, which are described below.

- **Bristol Street** is a six-lane divided roadway with sidewalks on both sides that is designated as a major arterial in the GPU and borders the Project site to the east. Bristol Street is oriented in the north-south direction and has a posted speed limit of 40 miles per hour (mph). On-street parking is not permitted on either side of this roadway in the vicinity of the Project site.
- **Bear Street** is a four-lane divided roadway north of MacArthur Boulevard, five-lane divided roadway between MacArthur Boulevard and Sunflower Avenue, a six-lane divided roadway south of Sunflower Avenue and is oriented in the north-south direction. The roadway is designated as a secondary arterial in the GPU and the posted speed limit on Bear Street is 40 mph. On-street parking is not permitted along this roadway in the vicinity of the Project site.
- **Callen's Common** is an onsite private roadway that is oriented east to west and bisects the Project site. The roadway has four lanes with a partially raised median.
- **MacArthur Boulevard** is a six-lane divided roadway designated as a major arterial in the General Plan and borders the Project site to the north. The roadway is aligned in an east-west direction, has sidewalks on both sides of the street, a Class II bike lane on the westbound side of the roadway, and has a posted speed limit of 40 mph. On-street parking is not permitted along this roadway in the vicinity of the Project site.
- **South Plaza Drive** is a four-lane divided roadway with sidewalks on both sides that borders the Project site to the west and is oriented in the north-south direction. The posted speed limit on South Plaza Drive is 25 mph. On-street parking is not permitted along this roadway in the vicinity of the Project site.

- **Sunflower Avenue** borders the Project site to the south, is designated as a major arterial in the General Plan and is an east-west oriented six-lane divided roadway east of Bear Street, and four-lane divided roadway west of Bear Street, with sidewalks on the westbound side. The posted speed limit on Sunflower Avenue is 40 mph. On-street parking is not permitted on either side of this roadway in the vicinity of the Project site. Sunflower Avenue divides the City of Santa Ana from the City of Costa Mesa to the south.

Existing Site Access

Vehicular access to the Project site is currently provided via unsignalized driveways along MacArthur Boulevard, Bristol Street, Sunflower Avenue, South Plaza Drive, and Callen's Common. Signalized access is provided on Bristol Street at Callen's Common.

Existing Transit Service

The Project site is located within a Transit Priority Area (TPA) and the Southern California Association of Governments (SCAG) identifies that the Project site is located within a High Quality Transit Area. Public transit bus service for the City is provided by the Orange County Transportation Authority (OCTA). Six OCTA bus routes operate within the vicinity of the Project site and travel along MacArthur Boulevard, Bristol Street, Sunflower Avenue, South Plaza Drive, and Bear Street. Also, the site is located within a high-quality transit corridor, as the fixed route bus routes provide service intervals of no longer than 15 minutes during peak commute hours, which includes the following:

- **OCTA Route 55:** The major routes of travel include MacArthur Boulevard and Bristol Street. Bus stops are provided on Bristol Street, northbound and southbound, south of the intersection with MacArthur Boulevard, adjacent to the Project site. Route 55 operates on approximately 30-minute headways on weekdays and weekends. Route 55 connects to the Newport Transportation Center.
- **OCTA Route 57:** The major route of travel includes Bristol Street. Bus stops are provided on Bristol Street, northbound and southbound, south of the intersection with MacArthur Boulevard, adjacent to the Project site. Route 57 operates on approximately 15-minute headways on weekdays and weekends. Route 57 connects to the Newport Transportation Center.
- **OCTA Route 76:** The major route of travel includes MacArthur Boulevard. Bus stops are provided on MacArthur Boulevard, eastbound and westbound, west of the intersection with Bristol Street and adjacent to the Project site. Route 76 operates on approximately 60-minute headways on weekdays and does not operate on weekends. Route 76 connects to John Wayne Airport.
- **OCTA Route 86:** The major routes of travel include Bristol Street and Sunflower Avenue. Bus stops are provided on Bristol Street, northbound and southbound, north of the intersection with Sunflower Avenue, adjacent to the Project site. Route 86 operates on approximately 60-minute headways on weekdays and does not operate on weekends. Route 86 connects to the Irvine Train Station.
- **OCTA Route 150:** The major route of travel includes Sunflower Avenue. Bus stops are provided on Sunflower Avenue, eastbound and westbound, east, and west of the intersection with South Plaza Drive, adjacent to the Project site. Route 150 operates on approximately 40-minute headways on weekdays and does not operate on weekends.
- **OCTA Route 553:** The major route of travel includes Sunflower Avenue, South Plaza Drive, and MacArthur Boulevard. Bus stops are provided on Sunflower Avenue, westbound, west of the intersection with Bristol Street, adjacent to the Project site. Route 553 operates on approximately 20-minute headways on weekdays and does not operate on weekends. Route 553 connects to the Anaheim Regional Transportation Intermodal Center.

In addition, the Southern California Regional Rail Authority also provides commuter/passenger rail service to, from and through Santa Ana. 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 that is 6 miles north of the Project site, the Anaheim Regional Transportation Intermodal Center that is 7.2 miles north of the Project site, and the Irvine Train Station that is 9.5 miles southeast of the Project site. Amtrak's Pacific Surfliner also provides passenger rail service through Santa Ana, connecting travelers to neighboring communities throughout Los Angeles and San Diego counties. As described previously, OCTA Bus Route 553 connects to the Anaheim Regional Transportation Intermodal Center and OCTA Bus Route 86 connects to the Irvine Train Station.

Existing Bicycle and Pedestrian Facilities

In the Project area, MacArthur Boulevard has a Class II bike lane on the westbound side and Bristol Street has Class II bike lanes on the northbound and southbound sides. Sidewalks currently exist on both sides of MacArthur Boulevard, South Plaza Drive, and Bristol Street and on the westbound side of Sunflower Avenue.

Existing VMT

The City identifies vehicle miles traveled (VMT) based on total VMT per service population for the entire County. Service population consists of the total employees and population that generate the VMT. The GPU FEIR details that the VMT per service population for the City in the year 2020 was 22.5, which is less than the County VMT per service population of 25.9.

4.17 TRIBAL CULTURAL RESOURCES

Native American Tribes

According to available ethnographic maps, ethnographic data, and Native American input, the City of Santa Ana lies within an area on the border of the traditional lands of the Gabrieleño and the Juaneño/Acjachemen.

Tribal Cultural Resources

A records search of the California Historical Resources Information System found four archaeological resources that were previously recorded within 0.5 mile of the Project site. Of these resources, one is a prehistoric site and three are historic-period archaeological isolates. The prehistoric site is associated with a prehistoric shell scatter, discovered in 1999, which is located 0.5-mile southeast of the Project site. According to the Archaeological Resource Assessment prepared for the Project, the site is sensitive for prehistoric archaeological resources. However, previous agricultural activities and current development within the site have reduced sensitivity for intact subsurface archaeological deposits at depths less than 18 inches bgs.

Sacred Lands File Search

The City requested a Sacred Lands File (SLF) Search from the NAHC on January 17, 2023, and received the results on February 2, 2023. The SLF returned negative results, indicating that no known tribal resources are located in the Project site.

4.18 UTILITIES AND SERVICE SYSTEMS

Water

The City's water supply is a combination of imported water from the Metropolitan Water District of Southern California (MWD), groundwater from the Orange County Groundwater Basin (OC Basin), and recycled water. Groundwater production accounts for 70 to 77 percent of the water supply and MWD imported water accounts for 23 to 30 percent, while recycled water accounts for less than 1 percent.

The Project site is currently developed with 16 commercial buildings that total 465,063 SF and include restaurants, a supermarket, banks, a dry cleaner, medical office, financial, and fitness uses and onsite landscaping. The existing water demand for the Project site is approximately 26,691 GPD.

The 2020 UWMP anticipates that the City's water supply will increase from 36,998 acre-feet (AF) in 2020 to 40,036 AF in 2040 (increase of 3,038 AFY). This increase includes the buildout of the South Bristol Street Focus Area. During the preparation of the GPU, the 2020 UWMP was not available at that time and the 2015 UWMP identified sufficient demand and supply to accommodate the GPU Focus Areas including the South Bristol Street Focus Area. The 2015 UWMP projected anticipated that 70 percent of supply would be groundwater from the OC Basin and 29 percent from imported/purchased sources. The 2015 UWMP detailed that the available supply would meet the projected demand in single dry years and multiple dry years through 2040.

The 2020 UWMP also describes that water demands per capita have been decreasing in recent years due to new state and local regulations related to water conservation. The 2020 UWMP demonstrated that the City used 66 gallons per capita per day (GPCD) in 2020, which is below the City's target of 116 GPCD for 2020. Additionally, as shown in Table 5.15-4, the 2020 MWD UWMP indicates that MWD has supply capabilities that would be sufficient to meet demands from 2025 to 2045 under the normal, single dry-year, and multiple dry years. Thus, the City would continue to be able to utilize imported water supply as needed.

Water Infrastructure

The City maintains 444 miles of transmission and distribution mains, 9 reservoirs with a storage capacity of 49.3 million gallons, 7 pumping stations, 20 wells, and 7 import water connections. The Project site is currently served by the City and is connected to the existing water infrastructure. MacArthur Boulevard contains a domestic 14-inch water line and a 14-inch Orange County Water District (OCWD) reclaimed water line. South Plaza Drive, Bristol Street, and Sunflower Avenue each have a 12-inch domestic water line that conveys water supplies to the Project site and adjacent areas.

Wastewater

In 2020, the City of Santa Ana generated approximately 21,768 acre-feet of wastewater (2020 UWMP). The City of Santa Ana operates and maintains the local sewer system consisting of approximately 390 miles of pipeline, 7,360 manholes, and 2 lift stations that connect to the Orange County Sanitation District's (OCSD) trunk system to convey wastewater to OCSD Treatment Plant 1. Wastewater from the Project site currently discharges into a private sewer line that drains to the west toward an existing City of Santa Ana 8-inch sewer line. The City's sewer line continues west to Sunflower Avenue and then into the 78-inch OCSD trunk sewer in Sunflower Avenue at Bear Street.

The GPU FEIR determined that the existing wastewater flows for the Bristol Street Focus Area are 565,500 gpd with an average flow of 0.0534 cubic feet per second (cfs) and a peak flow of 0.160 cfs. The Sewer Study (Appendix Q) prepared for the proposed Project monitored existing flows in South Plaza Drive, Sunflower Avenue, and the private 8-inch sewer main southwest of the site. It was determined that the OCSD South Plaza Drive sewer line has a capacity of 1.99 cfs, the OCSD Sunflower Avenue sewer line has a capacity of 96.80 cfs, and the City 8-inch sewer at the southerly site boundary has a capacity of 0.366 cfs (Appendix Q).

Wastewater from the Project site is treated at OCSD's Treatment Plant No. 1 in Fountain Valley. The treatment plant has a secondary treatment capacity of 182 million gallons per day (mgd). Average wastewater flows through Plant No. 1 are about 120 to 130 mgd; and therefore, the Plan has an additional capacity of approximately 52 mgd (GPU FEIR).

Storm Drainage Facilities

The Project site is within the Newport Bay Watershed. The proposed Project site is tributary to the Orange County Flood Control District (OCFCD) Santa Ana Gardens Channel, Facility No. F02, which is tributary to the OCFCD Santa Ana-Delhi Channel, Facility No. F01, Upper Newport Bay, and ultimately the Pacific Ocean. The Santa Ana Gardens Channel is a concrete lined channel from upstream at 1st Street to McFadden Avenue. Downstream of Alton Avenue, the channel is a reinforced rectangular concrete section, with a culvert at MacArthur Boulevard and Bristol Street. The Santa Ana Gardens Channel confluences with the Santa Ana-Delhi Channel at Sunflower Avenue, east of Bristol Street, and continues flowing southerly toward Upper Newport Bay. The Project site is currently 90 percent impervious and 10 percent pervious (Appendix M). The existing topography of the Project site is relatively flat and generally slopes to the west. The City's existing 54-inch storm drain transitions to an existing 60-inch storm drain in Sunflower Avenue at Bristol Street. Existing backbone storm drain lines are present in MacArthur Boulevard, Plaza Drive, along with Sunflower Avenue. A catch basin/lateral system exists in Bristol Street, to the east of the Project site. Drainage from the Project site currently flows to storm drains in South Plaza Drive, Sunflower Avenue, Bristol Street, and MacArthur Boulevard; and then to the Santa Ana Gardens Channel, Santa Ana-Delhi Channel, Newport Bay, and the Pacific Ocean. As mentioned previously, the existing storm drain facilities in Sunflower Avenue and Plaza Drive are hydraulically deficient, and upgrades are recommended by the City in its 2018 Storm Drain Master Plan.

Solid Waste

In 2019, a majority (80 percent) of the solid waste from the City of Santa Ana, which was disposed of in landfills, went to the Frank Bowerman Sanitary Landfill (CalRecycle 2023). The Frank R. Bowerman Sanitary Landfill received the largest amount of waste in 2019 which was 227,124 tons. The Olinda Alpha Sanitary Landfill received 31,849 tons. The total solid waste disposed from the City was 284,561 tons. The Frank Bowerman Sanitary Landfill is permitted to accept 11,500 tons per day of solid waste and is permitted to operate through 2053. In March 2023, the maximum tonnage received was 8,909.41 tons. Thus, the facility had additional capacity of 2,666.27 tons per day (CalRecycle 2023).

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- Santa Ana River Watershed. Accessed: <http://www.ocwatersheds.com/programs/ourws/snariver>
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- SCAG Connect SoCal (2020–2045 Regional Transportation Plan/Sustainable Communities Strategy). Accessed: <https://scag.ca.gov/read-plan-adopted-final-connect-socal-2020>
- Storm Drain Master Plan Drainage Assessment. Revised March 2023. Prepared by Fuscoe Engineering, Inc. (Appendix R)
- Sewer Analysis Report Related Bristol Specific Plan. February 2023. Prepared by Fuscoe Engineering, Inc. (Appendix Q)
- State Water Resources Control Board Construction Water Program. Accessed:
https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html
- Vehicle Miles Traveled (VMT) Screening Assessment for the Proposed Related Bristol Project, Santa Ana. June 2023. Prepared by Linscott Law & Greenspan. (Appendix O)

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5. Environmental Impact Analysis

This Chapter focuses on evaluating the significant environmental effects of the proposed Project, which is described in Chapter 3.0, *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 proposed Project. 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 proposed Project.

As described in Section 2.1, the General Plan Update Final EIR (GPU FEIR), State Clearinghouse (SCH) No. 2020029087 was certified by the City in 2022. The GPU FEIR included standard regulations and mitigation measures that apply to development projects within the City. The mitigation measures adopted as part of the GPU FEIR are related to: Air Quality, Biological Resources, Cultural Resources, Paleontological Resources, Greenhouse Gas Emissions, Noise, Public Services, Recreation, and Tribal Cultural Resources. Those that are related to the proposed Project are included in the discussion of each environmental topic area, in Table 1-2, *Summary of Impacts, Regulatory Requirements, Mitigation Measures, and Level of Significance*, and will be included in the Mitigation Monitoring and Reporting Program (MMRP) for the proposed Project.

Environmental Topics

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

- | | |
|-------------------------------------|------------------------------------|
| 5.1 Air Quality | 5.9 Noise |
| 5.2 Cultural Resources | 5.10 Population and Housing |
| 5.3 Energy | 5.11 Public Services |
| 5.4 Geology and Soils | 5.12 Parks and Recreation |
| 5.5 Greenhouse Gas Emissions | 5.13 Transportation |
| 5.6 Hazards and Hazardous Materials | 5.14 Tribal Cultural Resources |
| 5.7 Hydrology and Water Quality | 5.15 Utilities and Service Systems |
| 5.8 Land Use and Planning | 5.16 Mandatory CEQA Findings |

This Supplemental EIR evaluates the direct and indirect impacts resulting from construction and ongoing operations of the proposed Project. Under CEQA, EIRs are intended to focus their discussion on significant environmental impacts of a project on the environment and may limit discussion of other impacts to a brief explanation of why the impacts are not significant. The Notice of Preparation (NOP) that was prepared for the proposed Project and the responses received were used to help determine the scope of the environmental issues to be addressed in this Supplemental EIR. Consistent with CEQA Guidelines Section 15128, issues considered Potentially Significant are addressed in this Supplemental EIR.

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 Section 2.4, Supplemental EIR Scope and Content and Section 5.16, Mandatory CEQA Findings.

Format of Environmental Topic Sections

Each environmental topic section generally includes the following main subsections:

- **Regulatory Setting:** This subsection describes applicable federal, state, and local plans, policies, and regulations that the proposed Project must address, and will shape its implementation.
- **Existing Conditions:** This subsection describes the existing physical environmental conditions (environmental baseline) related to the environmental topic being analyzed.
- **Thresholds of Significance:** This subsection sets forth the thresholds of significance (significance criteria) used to determine whether impacts are “significant.”
- **Methodology:** This subsection provides a description of the methods used to analyze the impact and determine whether it would be significant or less than significant.
- **Environmental Impacts:** This subsection provides an analysis of the impact statements for each identified significance threshold. The analysis of each impact statement is organized as follows:
 - A statement of the CEQA threshold being analyzed.
 - The EIR’s conclusion as to the significance of the impact.
 - An impact assessment that evaluates the changes to the physical environment that would result from proposed Project.
 - An identification of significance comparing identified impacts of the proposed Project to the significance threshold with implementation of any existing regulations, prior to implementation of any required mitigation.
 - A discussion of potential cumulative impacts that could occur from implementation of the proposed Project and other cumulative projects.
 - A list of any existing regulations that reduce potential impacts.
 - For each impact determined to be potentially significant, feasible mitigation measure(s) to be implemented are provided. Mitigation measures include enforceable actions to:
 - avoid a significant impact;
 - minimize the severity of a significant impact;
 - rectify an impact by repairing, rehabilitating, or restoring the effected physical environment;
 - reduce or eliminate the impact over time through preservation and/or maintenance operations during the life of the proposed Project; and/or
 - compensating for the impact by replacing or providing substitute resources or environmental conditions.
 - Actions to be taken to ensure effective implementation of required mitigation measures.

Environmental Setting/Baseline

The environmental setting is normally existing conditions at the time the CEQA analysis begins (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 FEIR), 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). Here, the previous project is the General Plan Update; the GPU EIR which commenced in 2020 with the preparation of the NOP.

However, the current (2023) physical setting of the Project site and adjacent lands remain the same as those that existed in 2020. CEQA Guidelines Section 15125 states that “An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist 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, from both a local and regional perspective. The environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to gain an understanding of the significant effects of the proposed project and its alternatives.”

CEQA Guidelines and case law recognize that the date for establishing an environmental baseline cannot be rigid (see CEQA Guidelines Sections 15146, 15151, and 15204). In some instances, information is presented in the environmental setting that differs from the precise time of the NOP. This information is considered representative of baseline conditions. Furthermore, environmental conditions may vary from year to year, and in some cases, it is necessary to consider conditions over a range of time periods. The intent of this Draft Supplemental EIR is to provide a conservative analysis that identifies the reasonable maximum potential impact. Thus, this Draft Supplemental EIR provides both baseline conditions from the GP FEIR (and thus 2020) and current conditions for certain topics, such as the 2019-2021 ambient air quality conditions provided in Section 5.1, *Air Quality*, and the existing noise level measurements identified in Section 5.9, *Noise*.

A NOP was prepared for the proposed Project, and was distributed on March 17, 2023 for a 30-day public review and comment period that ended on April 17, 2023. The baseline conditions relevant to the environmental issues being analyzed are described within Section 4.0, *Environmental Setting*, and within each subsection of this section. In some cases, (such as in Section 5.9, *Noise*), discussion of baseline conditions is also provided in the impacts analyses to provide context for the impact in the most reader-friendly format and organization.

Thresholds of Significance/Significance Criteria

CEQA Guidelines Section 15382 defines a significant effect on the environment as “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.”

The “Thresholds of Significance” subsections provide the specific thresholds of significance by which impacts are judged to be significant or less than significant in this Supplemental EIR. These include identifiable quantitative or qualitative standards or sets of criteria pursuant to which the significance of each given environmental effect can be determined. Exceedance of a threshold of significance normally means the effect will be determined to be “significant” (CEQA Guidelines Section 15064.7(a)). However, an iron-clad definition of a “significant” effect is not always possible because the significance of an activity may vary with the setting (CEQA Guidelines Section 15064(b)). Therefore, a Lead Agency has the discretion to determine whether to classify an impact described in an EIR as “significant,” depending on the nature of the area affected. The thresholds of significance used to assess the significant of impacts are based on those provided in Appendix G of the CEQA Guidelines.

Impact Significance Classifications

The following classifications are used throughout the impact analysis in this Supplemental EIR to describe the level of significance of environmental impacts:

- **Significant Impact:** A significant impact is defined by Section 15382 of the CEQA Guidelines as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself “shall not be considered a significant effect on the environment ... [but] may be considered in determining whether the physical change is significant.” As defined in this EIR, a significant impact exceeds the defined significance criteria and therefore requires mitigation.
- **No Impact:** No adverse effect on the environment would occur, and mitigation measures are not required.
- **Less than Significant Impact:** The impact does not reach or exceed the defined threshold (criterion) of significance. Therefore, no mitigation is required.
- **Less than Significant Impact with Mitigation Incorporated:** The impact reaches or exceeds the defined threshold (criterion) of significance, and mitigation is therefore required. Feasible mitigation measures, including standard conditions of approval and applicable plans, programs, and policies, when implemented, will reduce the significant impact to a less-than-significant level.
- **Significant and Unavoidable Impact:** The impact reaches or exceeds the defined threshold (criterion) of significance, and mitigation is therefore required. However, application of all feasible mitigation measures, standard conditions of approval, and applicable plans, programs, and policies would not reduce the impact to a less-than-significant level, and a significant and unavoidable impact would remain.

While CEQA requires that an EIR identify all feasible mitigation to avoid or reduce the significant impacts of a project, it also permits public agencies to approve a project even though it would result in one or more significant unavoidable environmental effects. For a Lead Agency to approve a project with one or more significant unavoidable impacts, it must first prepare a statement of overriding considerations, which identifies the specific economic, legal, social, technological, or other benefits of the project, including region-wide or statewide environmental benefits, that outweigh its significant unavoidable effects, and thereby warrant its approval (Public Resources Code Section 21083; CEQA Guidelines Section 15093). The statement of overriding considerations must be supported by substantial evidence in the record (CEQA Guidelines Section 15093(a)).

Cumulative Impacts

Cumulative impacts refer to the combined effect of the proposed Project’s impacts with the impacts of other past, present, and reasonably foreseeable probable future projects. Both CEQA and the CEQA Guidelines require that cumulative impacts be analyzed in an EIR. As set forth in the CEQA Guidelines Section 15130(b), “the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone.” The CEQA Guidelines direct that the discussion should be guided by practicality and reasonableness and focus on the cumulative impacts that would result from the combination of the proposed Project and other projects, rather than the attributes of other projects which do not contribute to cumulative impacts. According to Section 15355 of the CEQA Guidelines, ‘cumulative impacts’ refer to two or more

individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

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

Therefore, the cumulative discussion in this Supplemental EIR focuses on whether the impacts of the proposed Project are cumulatively considerable within the context of impacts caused by other past, present, and reasonably foreseeable future projects.

Additionally, pursuant to the CEQA Guidelines Section 15130(a)(1), an EIR should not discuss cumulative impacts that do not result at least in part from the project being evaluated in the EIR. Thus, cumulative impact analysis is not provided for any environmental issue where the proposed Project would have no environmental impact. Analysis of cumulative impacts is, however, provided for all significant Project impacts that are evaluated within this Supplemental EIR.

CEQA Guidelines Section 15130(b)(1) states that the information utilized in an analysis of cumulative impacts should come from one of the following, or a reasonable combination of the two:

- A list of past, present and probable future projects producing related or cumulative impacts, including those projects outside the control of the lead agency; or
- A summary of projections contained in an adopted local, regional or statewide plan or related planning document that describes or evaluates conditions contributing to the cumulative effect.

The cumulative analysis for air quality, greenhouse gas emissions, population and housing, public services, parks and recreation, transportation, and utilities and service systems relies on projections contained in adopted local, regional, or statewide plans or related planning documents, such as Southern California Regional Transportation Plan and relevant regional plans developed by the Southern California Association of Governments (SCAG). The cumulative analyses for other environmental issues use the list of projects approach, and identifies the list of past projects which have recently been constructed, present projects which have recently been approved and are under construction, and probable future projects that are under entitlement review that were known of at the time the NOP was published. As described previously, the cumulative project list is part of the environmental setting/baseline that includes past, present and probable future projects for which development applications were submitted to lead agencies prior to publishing of the NOP.

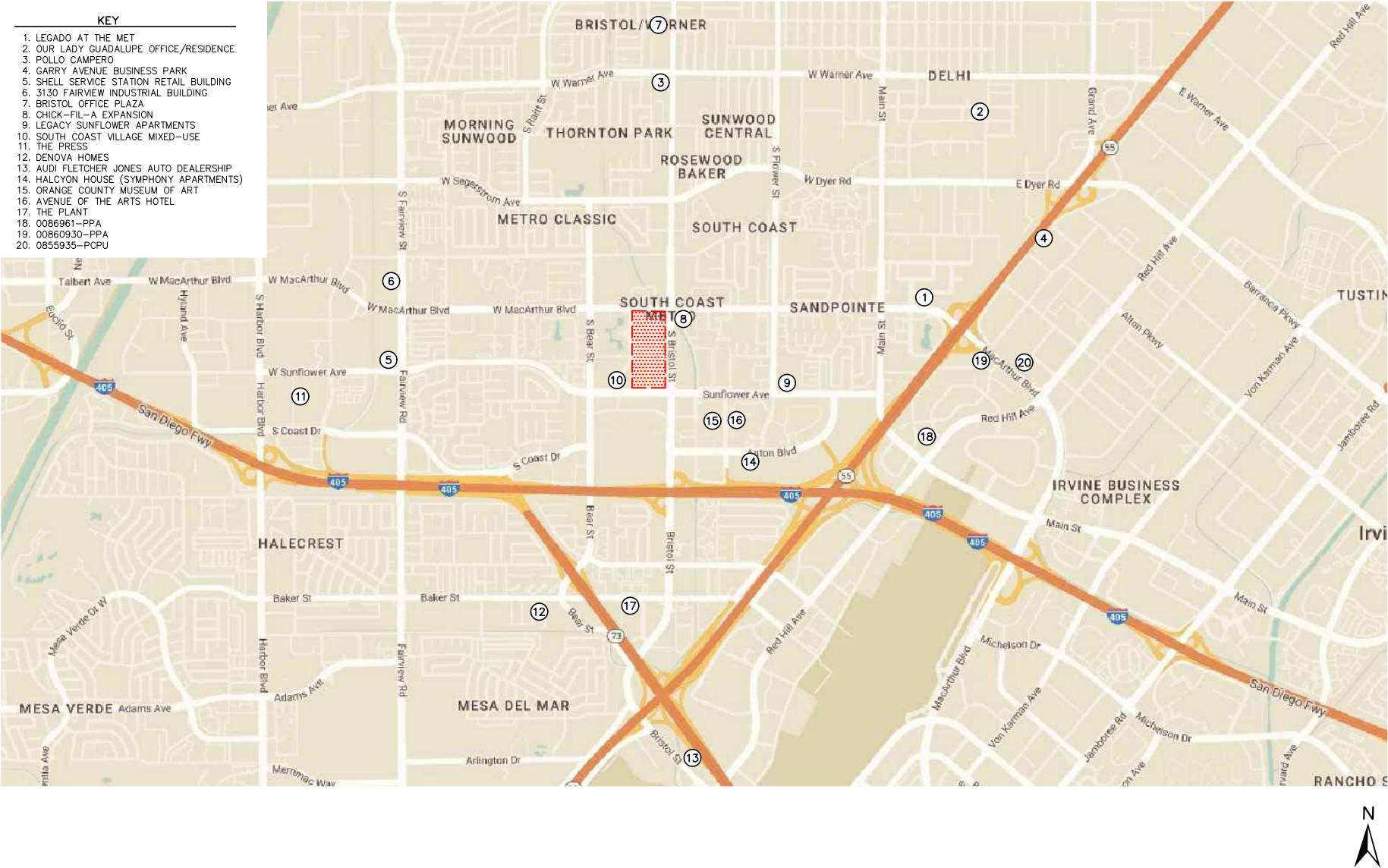
Different types of cumulative impacts occur over different geographic areas. For example, the geographic scope of the cumulative air quality analysis, where cumulative impacts occur over a large area, is different from the geographic scope considered for cumulative analysis of noise, for which cumulative impacts are limited to the distance of sound travel. Thus, in assessing noise impacts, only development within and immediately adjacent to the Project site would contribute to a cumulative increase in noise analyzed, whereas cumulative public service impacts are based upon all development within the area serviced. Because the geographic scope and other parameters of each cumulative analysis discussion can vary, the cumulative geographic scope, and the cumulative projects included in the geographic scope (when the list of projects approach is used), are described for each environmental topic. Table 5-1 provides a list of projects considered in this cumulative environmental analysis, which was compiled per information provided by surrounding cities and the City of Santa Ana, and Figure 5-1 shows the locations.

Table 5-1: Cumulative Project List

No.	Cumulative Project	Location/Address	Description	Project Status
City of Santa Ana				
1.	Legado at the Met	200 E. First American Way	278 DU residential apartments	Under Review
2.	Our Lady of Guadalupe Office/Residence	542 E. Central Avenue	2,395 SF rectory office/residential apartment	Under Construction
3.	Pollo Campero	2320 S. Bristol Street	2,756 SF fast-food restaurant with drive-thru	Under Review
4.	Garry Avenue Business Park	1700 E. Garry Avenue	91,500 SF distribution and warehousing	Under Review
5.	Shell Service Station Retail Building	3820 S. Fairview Street	12 pump and 1,600 SF gas station and convenience store	Completed
6.	3130 Fairview Industrial Building	3130 S. Fairview Street	82,241 SF industrial building	Under Review
7.	Bristol Office Plaza	1400 W. Saint Gertrude Place	7,500 SF commercial	Under Review
8.	Chick-Fil-A Expansion	3601 S. Bristol Street	630 SF expansion of fast-food restaurant with drive-thru	Under Review
9.	Legacy Sunflower Apartments	651 W. Sunflower Avenue	226 DU apartments	Under Construction
10.	South Coast Village Mixed-Use	NEC and NWC of Sunflower Avenue and S. Plaza Drive	<p><u>Phase 1:</u> Demolition of existing 46,843 SF retail, 47,301 SF furniture store, 38,290 SF quality restaurant, 4,560 SF high-turnover restaurant, and 24,000 SF office. Construction of 629 DU high-rise residential apartments, 18,000 SF supermarket, and 55,175 SF retail.</p> <p><u>Phase 2:</u> Construction of 690 DU high-rise residential apartments</p> <p><u>Phase 3:</u> Demolition of existing 18,362 SF movie theater. Construction of 300,000 SF office, 264 DU high-rise residential apartments, and 6,825 SF retail.</p>	Under Review
City of Costa Mesa				
11.	The Press	1375 Sunflower Street	453,950 SF office and 50,909 SF commercial	Under Construction
12.	DeNova Homes	929 Baker Street	56 DU single-family residential	Completed
13.	Audi Fletcher Jones Auto Dealership	1275 Bristol Street	50,971 SF automotive dealership and service center	Completed
14.	Halcyon House (Symphony Apartments)	585-595 Anton Boulevard	393 DU apartments and 4,104 SF retail	Completed
15.	Orange County Museum of Art	3333 Avenue of the Arts	66,750 SF art museum	Completed
16.	Avenue of the Arts Hotel	3350 Avenue of the Arts	150 room hotel expansion	Completed
17.	The Plant	2972 Century Place	62 DU apartments and 19,479 SF commercial spaces to include 5,230 SF retail, 3,000 SF restaurant, 2,315 SF food stalls, 6,364 SF live/work office use, and 2,570 SF office	Approved
City of Irvine				
18.	Palisades Irvine (0086961-PPA)	18011 Mitchell South	48,045 SF warehouse	Approved
19.	00860930-PPA	17731 Cowan	56,500 SF warehouse	Under Review
20.	0855935-PCPU	1340 Reynolds Avenue	3,636 SF escape room	Under Review

Sources: City of Santa Ana, City of Costa Mesa, and City of Irvine Planning Departments.

Location of Cumulative Projects



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5.1 Air Quality

5.1.1 INTRODUCTION

This section provides an overview of the existing air quality within the City of Santa Ana and surrounding region, a summary of applicable regulations, and analyses of potential short-term and long-term air quality impacts from implementation of the proposed Project. Mitigation measures are recommended as necessary to reduce significant air quality impacts. This section is based upon the following:

- *City of Santa Ana General Plan Update*
- *City of Santa Ana General Plan Update FEIR*
- *City of Santa Ana Municipal Code*
- *Air Quality Assessment, Appendix B*
- *Health Risk Analysis, Appendix C*

5.1.2 REGULATORY SETTING

United States Environmental Protection Agency

Criteria Air Pollutants

At the federal level, the United States Environmental Protection Agency (USEPA) has been charged with implementing national air quality programs. The USEPA's air quality mandates are drawn primarily from the Federal Clean Air Act (CAA), which was enacted in 1970. The most recent major amendments to the CAA were made by Congress in 1990.

The CAA requires the USEPA to establish National Ambient Air Quality Standards (NAAQS). The USEPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, CO, NO₂, SO₂, PM₁₀, PM_{2.5}, and lead. Table 5.2-1 shows the NAAQS for these pollutants. The CAA also requires each state to prepare an air quality control plan, referred to as a state implementation plan (SIP). The CAA Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins, as reported by their jurisdictional agencies. The USEPA is responsible for reviewing all SIPs to determine whether they conform to the mandates of the CAA and its amendments, and to determine whether implementing the SIPs will achieve air quality goals. If the USEPA determines a SIP to be inadequate, a federal implementation plan that imposes additional control measures may be prepared for the nonattainment area.

The USEPA also has regulatory and enforcement jurisdiction over emission sources beyond state waters (outer continental shelf), and those that are under the exclusive authority of the federal government, such as aircraft, locomotives, and interstate trucking. The USEPA's primary role at the state level is to oversee state air quality programs. The USEPA sets federal vehicle and stationary source emissions standards and provides research and guidance in air pollution programs.

Hazardous Air Pollutants

The USEPA has programs for identifying and regulating hazardous air pollutants (HAPs). Title III of the CAAA directed the USEPA to promulgate national emissions standards for HAPs (NESHAP). Major sources are defined as stationary sources with potential to emit more than 10 tons per year (tpy) of any HAP or more than 25 tpy of any combination of HAPs; all other sources are considered area sources. The emissions standards are to be promulgated in two phases. In the first phase (1992–2000), the USEPA developed

technology-based emission standards designed to produce the maximum emission reduction achievable. These standards are generally referred to as requiring maximum achievable control technology (MACT). For area sources, the standards may be different, based on generally available control technology. In the second phase (2001–2008), the USEPA promulgated health-risk-based emissions standards when deemed necessary, to address risks remaining after implementation of the technology-based NESHAP standards.

Table 5.1-1: Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	State Standard	National Standard	Pollutant Health and Atmospheric Effects	Major Pollutant Sources
Ozone	1 hour	0.09 ppm	---	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.	Formed when ROG and NO _x react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial / industrial mobile equipment.
	8 hours	0.07 ppm	0.075 ppm		
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Classified as a chemical asphyxiant, carbon monoxide interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm		
Nitrogen Dioxide (NO₂)	1 hour Annual Arithmetic Mean	0.18 ppm 0.030 ppm	0.100 ppm 0.053 ppm	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads.
Sulfur Dioxide (SO₂)	1 hour	0.25 ppm	75 ppb	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	3 hours	---	0.50 ppm		
	24 hours Annual Arithmetic Mean	0.04 ppm ---	0.14 ppm 0.03 ppm		
Respirable Particulate Matter (PM₁₀)	24 hours	50 µg/m ³	150 µg/m ³	May irritate eyes and respiratory tract, decreases in lung capacity, cancer and increased mortality. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	Annual Arithmetic Mean	20 µg/m ³	---		
Fine Particulate Matter (PM_{2.5})	24 hours	---	35 µg/m ³	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and results in surface soiling.	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning; Also, formed from photochemical reactions of other pollutants, including NO _x , sulfur oxides, and organics.
	Annual Arithmetic Mean	12 µg/m ³	12 µg/m ³		
Lead (Pb)	30 Day Average Calendar Quarter	1.5 µg/m ³ ---	---	Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurological dysfunction (in severe cases).	<i>Present source:</i> lead smelters, battery manufacturing and recycling facilities. <i>Past source:</i> combustion of leaded gasoline.
	Rolling 3-Month Average	---	0.15 µg/m ³		
Hydrogen Sulfide	1 hour	0.03 ppm	No National Standard	Nuisance odor (rotten egg smell), headache and breathing difficulties (higher concentrations)	Geothermal power plants, petroleum production and refining
Sulfates (SO₄)	24 hour	25 µg/m ³	No National Standard	Decrease in ventilatory functions; aggravation of asthmatic symptoms; aggravation of cardio-pulmonary disease; vegetation damage; degradation of visibility; property damage.	Industrial processes.
Visibility Reducing Particles	8 hour	Extinction of 0.23/km; visibility of 10 miles or more	No National Standard	Reduces visibility, reduced airport safety, lower real estate value, and discourages tourism.	See PM _{2.5} .

Note: ppm = parts per million; ppb = parts per billion; µg/m³ = micrograms per cubic meter.

The CAAA also required the USEPA to promulgate vehicle or fuel standards containing reasonable requirements that control toxic emissions of, at a minimum, benzene and formaldehyde. Performance criteria were established to limit mobile-source emissions of toxics, including benzene, formaldehyde, and 1,3-butadiene. In addition, Section 219 required the use of reformulated gasoline in selected areas with the most severe ozone nonattainment conditions to further reduce mobile-source emissions.

California Air Resources Board

Criteria Air Pollutants

The California Air Resources Board (CARB), a department of the California Environmental Protection Agency, oversees air quality planning and control throughout California. CARB is responsible for coordination and oversight of state and local air pollution control programs in California and for implementation of the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, requires CARB to establish the California Ambient Air Quality Standards (CAAQS). CARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. Applicable CAAQS are shown in Table 5.1-1.

The CCAA requires all local air districts in the state to endeavor to achieve and maintain the CAAQS by the earliest practical date. The act specifies that local air districts shall focus particular attention on reducing the emissions from transportation and area-wide emission sources and provides districts with the authority to regulate indirect sources.

Among CARB's other responsibilities are overseeing compliance by local air districts with California and federal laws, approving local air quality plans, submitting SIPs to the USEPA, monitoring air quality, determining and updating area designations and maps, and setting emissions standards for new mobile sources, consumer products, small utility engines, off-road vehicles, and fuels.

Diesel Regulations

The CARB and the Ports of Los Angeles and Long Beach have adopted several iterations of regulations for diesel trucks that are aimed at reducing diesel particulate matter (DPM). More specifically, the CARB Drayage Truck Regulation, the CARB statewide On-road Truck and Bus Regulation, and the Ports of Los Angeles and Long Beach "Clean Truck Program" (CTP) require accelerated implementation of "clean trucks" into the statewide truck fleet. In other words, older more polluting trucks will be replaced with newer, cleaner trucks as a function of these regulatory requirements. Moreover, the average statewide DPM emissions for Heavy Duty Trucks (HHDT), in terms of grams of DPM generated per mile traveled, will dramatically be reduced due to these regulatory requirements. Diesel emissions identified in this analysis would overstate future DPM emissions because not all the regulatory requirements are reflected in the modeling.

Toxic Air Contaminants

Toxic Air Contaminants (TACs) are airborne substances capable of causing short-term (acute) and long-term (chronic or carcinogenic, i.e., cancer causing) adverse human health effects (i.e., injury or illness). TACs include both organic and inorganic chemical substances. They may be emitted from a variety of common sources including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. The current California list of TACs includes approximately 200 compounds, including particulate emissions from diesel-fueled engines.

Air quality regulations also focus on TACs. In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. In other words, there is no safe level of exposure. This contrasts with the criteria air pollutants, for which acceptable levels of exposure can be determined and for which the ambient standards have been established. Instead, the USEPA and CARB regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of the maximum achievable control technology or best available control technology for toxics and to limit emissions. These statutes and regulations, in conjunction with additional rules set forth by the districts, establish the regulatory framework for TACs.

TACs in California are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807 [Chapter 1047, Statutes of 1983]) and the Air Toxics Hot Spots Information and Assessment Act (Hot Spots Act) (AB 2588 [Chapter 1252, Statutes of 1987]). AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and adopted the USEPA's list of HAPs as TACs. Most recently, diesel PM was added to the CARB list of TACs. Once a TAC is identified, CARB then adopts an airborne toxics control measure for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate best available control technology to minimize emissions.

The Air Toxics Hot Spots Information and Assessment Act requires existing facilities emitting toxic substances above a specified level to prepare a toxic-emission inventory, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures.

CARB published the Air Quality and Land Use Handbook: A Community Health Perspective (Handbook), which provides guidance concerning land use compatibility with TAC sources (CARB, 2005). Although it is not a law or adopted policy, the Handbook offers advisory recommendations for the siting of sensitive receptors near uses associated with TACs, such as freeways and high-traffic roads, commercial distribution centers, rail yards, ports, refineries, dry cleaners, gasoline stations, and industrial facilities, to help keep children and other sensitive populations out of harm's way. In addition, CARB has promulgated the following specific rules to limit TAC emissions:

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

California Code of Regulations (CCR) Title 13, Motor Vehicles, Section 2449(d)(3)

No vehicle or engines subject to this regulation may idle for more than 5 consecutive minutes. The idling limit does not apply to:

- idling when queuing,
- idling to verify that the vehicle is in safe operating condition,
- idling for testing, servicing, repairing or diagnostic purposes,
- idling necessary to accomplish work for which the vehicle was designed (such as operating a crane),
- idling required to bring the machine system to operating temperature, and
- idling necessary to ensure safe operation of the vehicle.

Title 24 Energy Efficiency Standards and California Green Building Standards

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code (CALGreen) was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 update that is applicable to building permit applications submitted after January 1, 2023. The updated 2022 standards focus on the following:

- Encouraging electric heat pump technology and use. Heat pumps use less energy and produce fewer emissions than traditional HVACs and water heaters.
- Establishing electric-ready requirements when natural gas is installed to provide for electric heating, cooking, and electric vehicle (EV) charging.
- Expanding solar photovoltaic (PV) system and battery storage standards.
- Strengthening ventilation standards to improve indoor air quality.

Indoor air quality within mechanically ventilated buildings is regulated by Section 5.504.5.3 (Filters) of the California Green Building Standards Code Part 11 that requires at least a Minimum Efficiency Reporting Value (MERV) of 13 air filtration systems for new buildings. The Code requires MERV 13 filters to be installed prior to occupancy and replaced and/or maintained as directed by the manufacturer.

In addition to these updated standards, the CALGreen standards that are applicable to the proposed Project include, but are not limited to, the following:

- Short-term bicycle parking. Provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5 percent of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack.
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility.
- Designated parking for clean air vehicles. Provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Title 24 Part 6 Table 5.106.5.2.
- Electric vehicle charging stations. Facilitate the future installation of electric vehicle supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load.
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight, and glare ratings per Title 24 Part 6 Table 5.106.8.
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste.
- Excavated soil and land clearing debris. 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled.
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals.
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
 - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush.
 - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush. The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush.
 - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi. Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi. Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute. Metering faucets shall not deliver more than 0.20 gallons per cycle. Metering faucets for wash fountains shall have a maximum flow rate of not more than 0.20 gallons per cycle.

- Outdoor portable water use in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient (MWELo), whichever is more stringent.
- Water meters. Separate submeters or metering devices shall be installed for new buildings or where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day.
- Outdoor water use in rehabilitated landscape projects equal or greater than 2,500 SF. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 SF requiring a building or landscape permit.
- Commissioning. For new buildings 10,000 SF and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements.

The CALGreen Building Standards Code has been adopted by the City of Santa Ana by reference in Municipal Code Section 8-2900.

SCAQMD

Criteria Air Pollutants

South Coast Air Quality Management District (SCAQMD) attains and maintains air quality conditions in the South Coast Air Basin (Basin) through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean air strategy of SCAQMD includes preparation of plans for attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, and issuance of permits for stationary sources of air pollution. SCAQMD also inspects stationary sources of air pollution and responds to citizen complaints; monitors ambient air quality and meteorological conditions; and implements programs and regulations required by the CAA, CAAA, and CCAA. Air quality plans applicable to the proposed Project are discussed below.

Air Quality Management Plan

SCAQMD and the Southern California Association of Governments (SCAG) are responsible for preparing the air quality management plan (AQMP), which addresses federal and state CAA requirements. The AQMP details goals, policies, and programs for improving air quality in the Basin.

SCAG is mandated by law to develop a long-term regional transportation and sustainability plan every four years. The most recently adopted AQMP is the 2022 AQMP that was adopted by the SCAQMD Governing Board on December 2, 2022. The 2022 AQMP builds upon measures already in place from previous AQMPs. It also includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technologies (e.g., zero emissions technologies, when cost-effective and feasible, and low NO_x technologies in other applications), best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other CAA measures to achieve the 2015 federal 8-hour ozone standard. SCAQMD proposes a total of 49 control measures for the 2022 AQMP, including control measures focused on widespread deployment of zero emission and low NO_x technologies through a combination of regulatory approaches and incentives.

The RTP/SCS also provides a combination of transportation and land use strategies that help the region achieve state GHG emissions reduction goals and Federal Clean Air Act requirements, preserve open space areas, improve public health and roadway safety, support our vital goods movement industry, and use

resources more efficiently. GHG emissions resulting from development-related mobile sources are the most potent source of emissions.

SCAQMD Rules and Regulations

All projects are subject to SCAQMD rules and regulations. Specific rules applicable to the proposed Project include the following:

Rule 203 – Permit to Operate. A person shall not operate or use any equipment or agricultural permit unit, the use of which may cause the issuance of air contaminants, or the use of which may reduce or control the issuance of air contaminants, without first obtaining a written permit to operate from the Executive Officer or except as provided in Rule 202. The equipment or agricultural permit unit shall not be operated contrary to the conditions specified in the permit to operate.

Rule 401 – Visible Emissions. A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any 1 hour that is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines.

Rule 402 – Nuisance. A person shall not discharge from any source whatsoever such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any such persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

Rule 403 – Fugitive Dust. SCAQMD Rule 403 governs emissions of fugitive dust during and after construction. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

Rule 403 requires project applicants to control fugitive dust using the best available control measures such that dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating an offsite nuisance. Applicable Rule 403 dust suppression (and PM₁₀ generation) techniques to reduce impacts on nearby sensitive receptors may include, but are not limited to, the following:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Water active sites at least three times daily. Locations where grading is to occur shall be thoroughly watered prior to earthmoving.
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meters (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114.
- Reduce traffic speeds on all unpaved roads to 15 miles per hour (mph) or less.
- Suspend all grading activities when wind speeds (including instantaneous wind gusts) exceed 25 mph.
- Provide bumper strips or similar best management practices where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site each trip.

- Replant disturbed areas as soon as practical.
- Sweep onsite streets (and offsite streets if silt is carried to adjacent public thoroughfares) to reduce the amount of particulate matter on public streets. All sweepers shall be compliant with SCAQMD Rule 1186.1, Less Polluting Sweepers.

Rule 431.2 – Sulfur Content of Liquid Fuels. This rule limits the sulfur content in diesel and other liquid fuels for the purpose of both reducing the formation of sulfur oxides and particulates during combustion and to enable the use of add-on control devices for diesel fueled internal combustion engines.

Rule 445 – Wood Burning. This rule prohibits permanently installed wood burning devices into any new development. A wood burning device means any fireplace, wood burning heater, or pellet-fueled wood heater, or any similarly enclosed, permanently installed, indoor or outdoor device burning any solid fuel for aesthetic or space-heating purposes, which has a heat input of less than one million British thermal units per hour.

Rule 481 – Spray Coating. This rule applies to all spray painting and spray coating operations and equipment and states that a person shall not use or operate any spray painting or spray coating equipment unless one of the following conditions is met:

- The spray coating equipment is operated inside a control enclosure, which is approved by the Executive Officer. Any control enclosure for which an application for permit for new construction, alteration, or change of ownership or location is submitted after the date of adoption of this rule shall be exhausted only through filters at a design face velocity not less than 100 feet per minute nor greater than 300 feet per minute, or through a water wash system designed to be equally effective for the purpose of air pollution control.
- Coatings are applied with high-volume low-pressure, electrostatic and/or airless spray equipment.
- An alternative method of coating application or control is used which has effectiveness equal to or greater than the equipment specified in the rule.

Rule 1108 - Volatile Organic Compounds. This rule governs the sale, use, and manufacturing of asphalt and limits the volatile organic compound (VOC) content in asphalt used in the Basin. This rule also regulates the VOC content of asphalt used during construction. Therefore, all asphalt used during construction of the proposed Project must comply with SCAQMD Rule 1108.

Rule 1113 – Architectural Coatings. No person shall apply or solicit the application of any architectural coating within the SCAQMD with VOC content in excess of the values specified in a table incorporated in the Rule. A list of low/no-VOC paints is provided at the following SCAQMD website: www.aqmd.gov/prdas/brochures/paintguide.html. All paints will be applied using either high volume low-pressure spray equipment or by hand application.

Rule 1143 – Paint Thinners and Solvents. This rule governs the manufacture, sale, and use of paint thinners and solvents used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations by limiting their VOC content. This rule regulates the VOC content of solvents used during construction. Solvents used during the construction phase must comply with this rule.

Rule 1186 – Emissions from Paved and Unpaved Roads. The purpose of this rule is to reduce the amount of particulate matter entrained in the ambient air as a result of vehicular travel and requires that any owner or operator of a paved public road on which there is visible roadway accumulations shall begin removal of such material through street cleaning within 72 hours of any notification of the accumulation and shall completely remove such material as soon as feasible.

Rule 1186.1 - Less-Polluting Sweepers. This rule requires public and private sweeper fleet operators to acquire alternative-fuel or otherwise less-polluting sweepers when purchasing or leasing these vehicles for sweeping operations.

City of Santa Ana General Plan

The General Plan includes the following goals and policies that may reduce air quality impacts and are relevant to the proposed Project:

Mobility Element

- POLICY M-3.7** Enhance streets to facilitate safe walking, bicycling, and other nonmotorized forms of transportation through community participatory design.
- POLICY M-4.1** 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** 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** Coordinate with OCTA, employers, and developers to utilize TDM (transportation demand management) strategies and education to reduce vehicle trips and parking demands.
- POLICY M-4.6** 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** Explore and implement a flexible menu of parking options and other strategies to efficiently coordinate the response to parking demands.
- POLICY M-4.9** Consider land use, building, site planning, and technology solutions to mitigate exposure to transportation related air pollution.
- POLICY M-5.6** Encourage the use of alternative fuel vehicles and mobility technologies through the installation of supporting infrastructure.

Conservation Element

- POLICY C-1.3** 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 C-1.4** Support new development that meets or exceeds standards for energy-efficient building design and site planning.
- POLICY C-1.5** Consider potential 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 on the siting of facilities that might significantly increase pollution near sensitive receptors within environmental justice area boundaries.
- POLICY C-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 C-1.9** Continue to invest in infrastructure projects that support public transportation and alternate modes of transportation in the City of Santa Ana, including pedestrian, bicycling, public transportation, car sharing programs, and emerging technologies.
- POLICY C-1.12** 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 C-1.14** Require and incentivize projects to incorporate Transportation Demand Management (TDM) techniques.
- POLICY C-3.3** Promote energy efficient-development patterns by clustering mixed use developments and compatible uses adjacent to public transportation.

Land Use Element

- POLICY LU-1.5** Incentivize quality infill residential development that provides a diversity of housing types and accommodates all income levels and age groups.
- POLICY LU-1.6** Encourage residential mixed-use development, within the City's District Centers and Urban Neighborhoods, and adjacent to high quality transit.
- POLICY LU-2.5** 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** Focus high density residential in mixed-use villages, designated planning focus areas, Downtown Santa Ana, and along major travel corridors.
- POLICY LU-3.8** 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** 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-3.12** 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.
- POLICY LU-4.1** Promote complete neighborhoods by encouraging a mix of complementary uses, community services, and people places within a walkable area.
- POLICY LU-4.3** 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** Concentrate development along high-quality transit corridors to reduce vehicle miles traveled (VMT) and transportation related carbon emissions.

Open Space Element

POLICY OS-2.5 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.

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.

5.1.3 ENVIRONMENTAL SETTING

Climate and Meteorology

The City of Santa Ana is located within the South Coast Air Basin (Basin), which is under the jurisdiction of the SCAQMD. The Basin is a 6,600-square-mile coastal plain bounded by the Pacific Ocean to the southwest and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, and all of Orange County.

The ambient concentrations of air pollutants are determined by the amount of emissions released by sources and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality conditions in the area are determined by such natural factors as topography, meteorology, and climate, in addition to the volume of emissions released by existing air pollutant sources.

Atmospheric conditions such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants. The topography and climate of Southern California combine to make the Basin an area of high air pollution potential. The Basin is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the west and high mountains around the rest of the perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The usually mild climatological pattern is disrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds. During the summer months, a warm air mass frequently descends over the cool, moist marine layer produced by the interaction between the ocean's surface and the lowest layer of the atmosphere. The warm upper layer forms a cap over the cool marine layer and inhibits the pollutants in the marine layer from dispersing upward. In addition, light winds during the summer further limit ventilation. Furthermore, sunlight triggers the photochemical reactions which produce ozone.

Criteria Air Pollutants

The CARB and the USEPA currently focus on the following air pollutants as indicators of ambient air quality: ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), respirable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM₁₀), fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less (PM_{2.5}), and lead. These pollutants are referred to as "criteria air pollutants" because they are the most prevalent air pollutants known to be injurious to human health. Extensive health-effects criteria documents regarding the effects of these pollutants on human health and welfare have been prepared over the years.¹ Standards have been established for each criteria pollutant to meet specific

¹ Additional sources of information on the health effects of criteria pollutants can be found at CARB and USEPA's websites at <http://www.arb.ca.gov/research/health/health.htm> and <http://www.epa.gov/air/airpollutants.html>, respectively.

public health and welfare criteria set forth in the Federal CAA. California has generally adopted more stringent ambient air quality standards for the criteria air pollutants (CAAQS or state standards) and has adopted air quality standards for some pollutants for which there is no corresponding national standard (NAAQS), such as sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

Ozone. Ozone, the main component of photochemical smog, is primarily a summer and fall pollution problem. Ozone is not emitted directly into the air but is formed through a complex series of chemical reactions involving other compounds that are directly emitted. These directly emitted pollutants (also known as ozone precursors) include reactive organic gases (ROGs) or volatile organic compounds (VOCs), and oxides of nitrogen (NO_x). While both ROGs and VOCs refer to compounds of carbon, ROG is a term used by CARB and is based on a list of exempted carbon compounds determined by CARB. VOC is a term used by the USEPA and is based on its own exempt list. The time period required for ozone formation allows the reacting compounds to spread over a large area, producing regional pollution problems. Ozone concentrations are the cumulative result of regional development patterns rather than the result of a few significant emission sources.

Once ozone is formed, it remains in the atmosphere for one or two days. Ozone is then eliminated through reaction with chemicals on the leaves of plants, attachment to water droplets as they fall to earth (“rainout”), or absorption by water molecules in clouds that later fall to earth with rain (“washout”). Short-term exposure to ozone can irritate the eyes and cause constriction of the airways. In addition to causing shortness of breath, ozone can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.

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

Nitrogen Dioxide. NO₂ is a reddish-brown gas that is a by-product of combustion processes. Automobiles and industrial operations are the main sources of NO₂. Combustion devices emit primarily nitric oxide (NO), which reacts through oxidation in the atmosphere to form NO₂. The combined emissions of NO and NO₂ are referred to as NO_x, which are reported as equivalent NO₂. Aside from its contribution to ozone formation, NO₂ can increase the risk of acute and chronic respiratory disease and reduce visibility. NO₂ may be visible as a coloring component of a brown cloud on high pollution days, especially in conjunction with high ozone levels.

Sulfur Dioxide. SO₂ is a colorless, extremely irritating gas or liquid that enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal, and from chemical processes occurring at chemical plants and refineries. When SO₂ oxidizes in the atmosphere, it forms sulfur trioxide (SO₃). Collectively, these pollutants are referred to as sulfur oxides (SO_x). Major sources of SO₂ include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Emissions of SO₂ aggravate lung diseases, especially bronchitis. This compound also constricts the breathing passages, especially in people with asthma and people involved in moderate to heavy exercise. SO₂ potentially causes wheezing, shortness of breath, and coughing. Long-term SO₂ exposure has been associated with increased risk of mortality from respiratory or cardiovascular disease.

Particulate Matter. PM₁₀ and PM_{2.5} consist of particulate matter that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively (a micron is one-millionth of a meter). PM₁₀ and PM_{2.5} represent fractions of particulate matter that can be inhaled into the air passages and the lungs and can cause adverse health effects. Acute and chronic health effects associated with high particulate levels include the aggravation of chronic respiratory diseases, heart and lung disease, and coughing, bronchitis and

respiratory illnesses in children. Particulate matter can also damage materials and reduce visibility. One common source of $PM_{2.5}$ is diesel exhaust emissions.

PM_{10} consists of particulate matter emitted directly into the air (e.g., fugitive dust, soot, and smoke from mobile and stationary sources, construction operations, fires, and natural windblown dust) and particulate matter formed in the atmosphere by condensation and/or transformation of SO_2 and ROG. Traffic generates particulate matter emissions through entrainment of dust and dirt particles that settle onto roadways and parking lots. PM_{10} and $PM_{2.5}$ are also emitted by burning wood in residential wood stoves and fireplaces and open agricultural burning. $PM_{2.5}$ can also be formed through secondary processes such as airborne reactions with certain pollutant precursors, including ROGs, ammonia (NH_3), NO_x , and SO_x .

Lead. Lead is a metal found naturally in the environment and present in some manufactured products. There are a variety of activities that can contribute to lead emissions, which are grouped into two general categories, stationary and mobile sources. On-road mobile sources include light-duty automobiles; light-, medium-, and heavy-duty trucks; and motorcycles. Emissions of lead have dropped substantially over the past 40 years. The reduction before 1990 is largely due to the phase-out of lead as an anti-knock agent in gasoline for on-road automobiles. Substantial emission reductions have also been achieved due to enhanced controls in the metals processing industry. In the Basin, atmospheric lead is generated almost entirely by the combustion of leaded gasoline and contributes less than one percent of the material collected as total suspended particulates.

Existing Conditions

SCAQMD maintains monitoring stations within district boundaries that monitor air quality and compliance with associated ambient standards. The Project site is located within the monitoring boundary of the Anaheim-Pampas Lane monitoring station (SRA 17), which is 9.7 miles north of the Project site. The most recent 3 years of data is shown on Table 5.1-2 and identifies the number of days ambient air quality standards were exceeded in the area.

The federal PM_{10} standard had no exceedances. The state PM_{10} standard was exceeded 4 times in 2019, 5 times in 2020, and 1 time in 2021. The $PM_{2.5}$ federal standard had 4 exceedances in 2019, 12 exceedances in 2020, and 10 exceedances in 2021. The 1-hour ozone state standard was exceeded 1 time in 2019, 6 times in 2020, and 0 times in 2021. The 8-hour ozone federal standard was 1 time in 2019, 15 times in 2020, and 0 times in 2021. In addition, the CO , SO_2 , and NO_2 standards were not exceeded in this area during the 3-year period.

Both CARB and the USEPA use this type of monitoring data to designate areas according to their attainment status for criteria air pollutants. The purpose of these designations is to identify the areas with air quality problems and thereby initiate planning efforts for improvement. The three basic designation categories are nonattainment, attainment, and unclassified. Nonattainment is defined as any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the primary or secondary ambient air quality standard for the pollutant. Attainment is defined as any area that meets the primary or secondary ambient air quality standard for the pollutant. Unclassifiable is defined as any area that cannot be classified on the basis of available information as meeting or not meeting the primary or secondary ambient air quality standard for the pollutant. In addition, California designations include a subcategory of nonattainment-transitional, which is given to nonattainment areas that are progressing and nearing attainment.

Table 5.1-2: Air Quality Monitoring Summary 2019-2021

Criteria Pollutant	2019	2020	2021
Ozone (O₃)			
1-hour Maximum Concentration (ppm)	0.096	0.142	0.089
8-hour Maximum Concentration (ppm)	0.082	0.097	0.068
<i>Number of Days Standard Exceeded</i>			
CAAQS 1-hour (>0.09 ppm)	1	6	0
NAAQS 8-hour (>0.070 ppm)	1	15	0
Carbon Monoxide (CO)			
1-hour Maximum Concentration (ppm)	2.635	1.316	2.288
<i>Number of Days Standard Exceeded</i>			
NAAQS 1-hour (>35 ppm)	0	0	0
CAAQS 1-hour (>20 ppm)	0	0	0
Nitrogen Dioxide (NO₂)			
1-hour Maximum Concentration (ppm)	0.0594	0.0709	0.0671
<i>Number of Days Standard Exceeded</i>			
NAAQS 1-hour (>0.100 ppm)	0	0	0
CAAQS 1-hour (>0.18 ppm)	0	0	0
Particulate Matter Less Than 10 Microns (PM₁₀)			
National 24-hour Maximum Concentration	127.6	74.8	63.6
State 24-hour Maximum Concentration	127.1	74.5	63.3
State Annual Average Concentration (CAAQS=20 µg/m ³)	—	—	—
<i>Number of Days Standard Exceeded</i>			
NAAQS 24-hour (>150 µg/m ³)	0	0	0
CAAQS 24-hour (>50 µg/m ³)	4	5	1
Particulate Matter Less Than 2.5 Microns (PM_{2.5})			
National 24-hour Maximum Concentration	36.1	60.2	54.4
State 24-hour Maximum Concentration	37.1	64.8	54.4
<i>Number of Days Standard Exceeded</i>			
NAAQS 24-hour (>35 µg/m ³)	4	12	10

Source: Air Quality Assessment, Appendix B.

The Basin is currently designated as a nonattainment area for O₃, PM₁₀, and PM_{2.5} CAAQS, as well as the 8-hour O₃ and PM_{2.5} NAAQS. The Basin is designated as attainment or unclassified for the remaining CAAQS and NAAQS. See Table 5.1-3, for attainment designations for the Basin.

Table 5.1-3: Attainment Status of Criteria Pollutants in the Basin

Criteria Pollutant	State Designation	Federal Designation
Ozone (O ₃) (1 Hour Standard)	Non-Attainment	Non-Attainment (Extreme)
Ozone (O ₃) (8 Hour Standard)	Non-Attainment	Non-Attainment (Extreme)
Particulate Matter (PM _{2.5}) (24 Hour Standard)	–	Non-Attainment (Serious)
Particulate Matter (PM _{2.5}) (Annual Standard)	Non-Attainment	Non-Attainment (Moderate)
Particulate Matter (PM ₁₀) (24 Hour Standard)	Non-Attainment	Attainment (Maintenance)
Particulate Matter (PM ₁₀) (Annual Standard)	Non-Attainment	–
Carbon Monoxide (CO) (1 Hour Standard)	Attainment	Attainment (Maintenance)
Carbon Monoxide (CO) (8 Hour Standard)	Attainment	Attainment (Maintenance)
Nitrogen Dioxide (NO ₂) (1 Hour Standard)	Attainment	Unclassifiable/Attainment
Nitrogen Dioxide (NO ₂) (Annual Standard)	Attainment	Attainment (Maintenance)
Sulfur Dioxide (SO ₂) (1 Hour Standard)	Attainment	Unclassifiable/Attainment
Sulfur Dioxide (SO ₂) (24 Hour Standard)	Attainment	–
Lead (Pb) (30 Day Standard)	–	Unclassifiable/Attainment
Lead (Pb) (3 Month Standard)	Attainment	–
Sulfates (SO ₄₋₂) (24 Hour Standard)	Attainment	–
Hydrogen Sulfide (H ₂ S) (1 Hour Standard)	Unclassified	–

Source: Air Quality Assessment, Appendix B.

Current Emissions from Existing Onsite Uses. The Project site is currently developed with 16 commercial buildings that total approximately 465,063 SF. The estimated operation-source emissions from the existing commercial uses on the Project site are provided in Table 5.1-4.

Table 5.1-4: Existing Project Site Operational Air Quality Emissions

Source	Emissions (Maximum Pounds Per Day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Existing Phase 1 Area Emissions						
Mobile Emissions	51.03	28.44	269.56	0.51	10.26	2.27
Area Source Emissions	9.32	0.18	21.22	0.00	0.01	0.04
Energy Emissions	0.02	0.39	0.33	0.00	35.52	0.03
Total Existing Phase 1 Area Emissions	60.38	29.01	291.11	0.51	45.79	2.34
Existing Phase 2 Area Emissions						
Mobile Emissions	8.00	7.53	40.34	39.79	1.54	0.34
Area Source Emissions	1.39	0.87	3.17	0.00	0.00	0.01
Energy Emissions	0.01	0.06	0.06	0.05	0.00	0.00
Total Existing Phase 2 Area Emissions	9.41	8.46	43.57	39.84	1.54	0.35
Existing Phase 3 Area Emissions						
Mobile Emissions	38.54	21.48	203.58	0.38	7.75	1.72
Area Source Emissions	7.04	0.14	16.03	0.00	0.02	0.03
Energy Emissions	0.02	0.30	0.25	0.00	0.02	0.02
Total Existing Phase 3 Area Emissions	45.60	21.91	219.86	0.38	7.79	1.77
Total Existing Emissions from Entire Site	115.38	59.38	554.53	40.73	55.13	4.46

Source: Air Quality Assessment, Appendix B.

Sensitive Land Uses

Land uses such as schools, children’s daycare centers, hospitals, and convalescent homes are considered to be more sensitive to poor air quality than the general public because the population groups associated with these uses have increased susceptibility to respiratory distress. In addition, residential uses are considered more sensitive to air quality conditions than commercial and industrial uses, because people generally spend longer periods of time at their residences, resulting in greater exposure to ambient air quality conditions. Recreational land uses are considered moderately sensitive to air pollution. Exercise places a high demand on respiratory functions, which can be impaired by air pollution, even though exposure periods during exercise are generally short. In addition, noticeable air pollution can detract from the enjoyment of recreation.

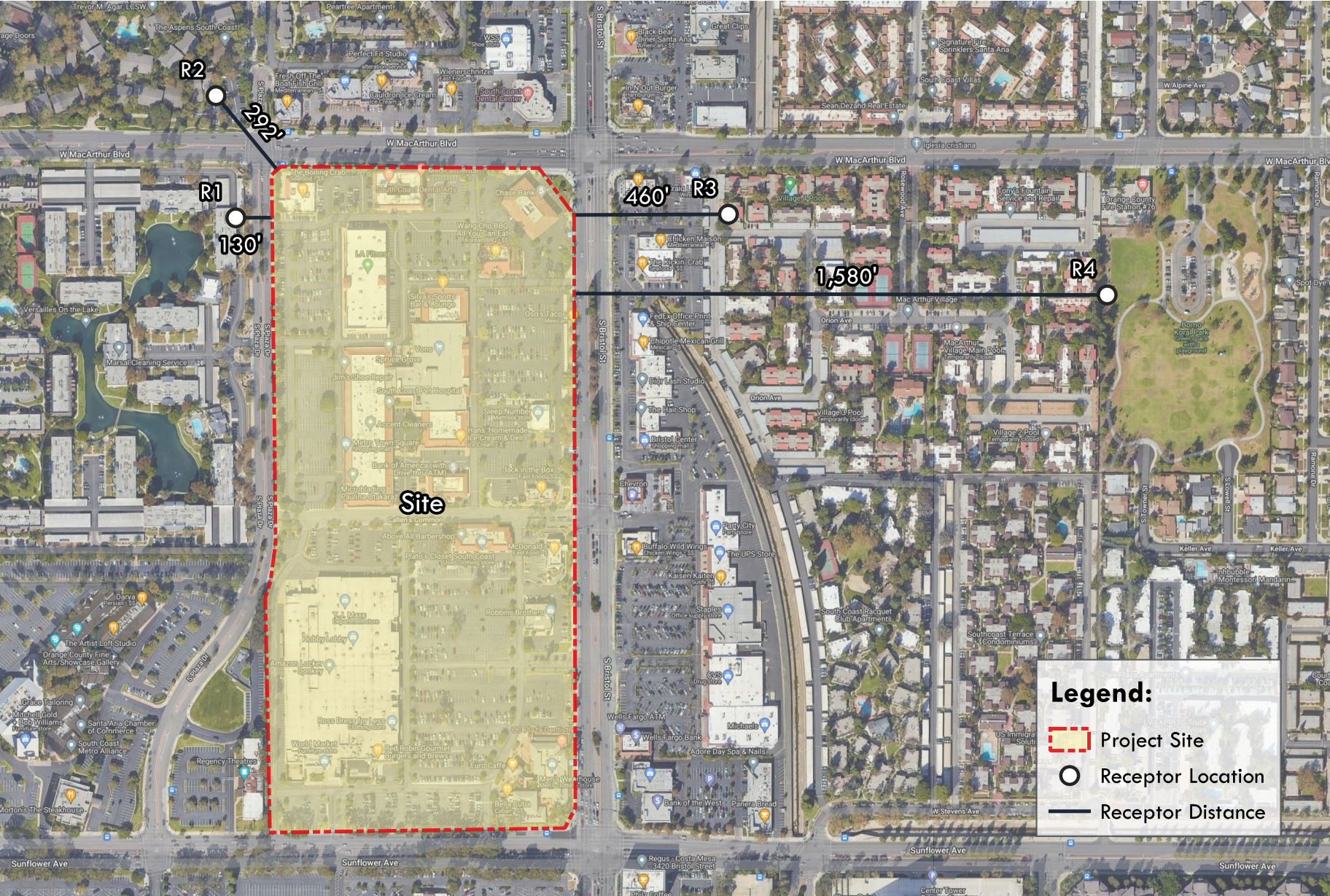
Existing offsite sensitive air quality receptors where someone can remain for 24-hours in the vicinity of the Project site consists of residences. The closest offsite residences are located 130 feet (40 meters) to the west of the site as listed in Table 5.1-5.

Table 5.1-5: Closest Sensitive Receptors to the Project Site

Receptor Number	Receptor Description	Distance and Direction from the Project Site
R1	Multi-family Residences	130 feet to the west
R2	Multi-family Residences	292 feet to the northwest
R3	Multi-family Residences	460 feet to the east
R4	Bomo Koral Park	1,580 feet to the east

Source: Air Quality Assessment, Appendix B

Sensitive Receptor Locations



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5.1.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

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

Regional Thresholds

The SCAQMD’s regional significance thresholds are listed in Table 5.1-6. The SCAQMD’s CEQA air quality methodology provides that any projects that result in daily emissions that exceed any of these thresholds would have both an individually (project-level) and cumulatively significant air quality impact.

Table 5.1-6: SCAQMD Regional Air Quality Thresholds

Pollutant	Construction	Operations
Reactive Organic Gases (ROG)	75	55
Carbon Monoxide (CO)	550	550
Nitrogen Oxides (NO _x)	100	55
Sulfur Oxides (SO _x)	150	150
Coarse Particulates (PM ₁₀)	150	150
Fine Particulates (PM _{2.5})	55	55

Localized Significance Thresholds

SCAQMD has also developed localized significance thresholds (LSTs) that represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards, and thus would not cause or contribute to localized air quality impacts. LSTs are developed based on the ambient concentrations of that pollutant for each of the 38 source receptor areas (SRAs) in the Basin. The Project site is located within Central Orange County (SRA 17). The localized thresholds, which are found in the mass rate look-up tables in the “Final Localized Significance Threshold Methodology” document prepared by SCAQMD, were developed for use on projects that are less than or equal to 5-acres in size and are only applicable to the following criteria pollutants: NO_x, CO, PM₁₀, and PM_{2.5}.

The proposed Project’s construction activities could actively disturb approximately 5.0 acres per day during grading activities. The applicable SCAQMD localized thresholds from the “Final Localized Significance Threshold Methodology” document’s mass rate look-up tables are used to evaluate construction emissions. The applicable LSTs construction thresholds for grading up to 5 acres per day at 130 feet (40 meters), which is the distance of the closest sensitive receptor are shown in Table 5.1-7.

Table 5.1-7: SCAQMD Localized Significance Construction/Operations Thresholds at a Distance of 40 Meters

Project Size	Maximum Pounds Per Day			
	NO _x	CO	PM ₁₀	PM _{2.5}
1 Acre	82.20/82.20	645.80/645.80	8.80/2.20	3.60/1.00
2 Acres	114.40/114.40	910.60/910.60	13.80/3.80	5.20/1.60
4 Acres	153.73/153.73	1,331.27/1,331.27	23.67/6.07	7.20/2.27
5 Acres	173.40/173.40	1,541.60/1,541.60	28.60/7.20	8.20/2.43

Source: Air Quality Assessment, Appendix B

CO Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. Hotspots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. With the turnover of older vehicles and introduction of cleaner fuels as well as implementation of control technology on industrial facilities, CO concentrations in the South Coast Air Basin and the state have steadily declined. The analysis of CO hotspots compares the volume of traffic that has the potential to generate a CO hotspot and the volume of traffic with implementation of the proposed Project.

Diesel Mobile Source Health Risk Threshold

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 diesel particulate matter (DPM) exposure. This threshold serves to determine whether or not a given project has a potentially significant development-specific and cumulative impact. Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. Thus, the project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are not considered to be cumulatively significant.

5.1.5 METHODOLOGY

This analysis focuses on the nature and magnitude of the change in the air quality environment due to implementation of the proposed Project, based on the maximum development assumptions that are outlined in Chapter 3.0, *Project Description*. Air pollutant emissions associated with the proposed Project would result from construction equipment usage and from construction-related traffic. Additionally, emissions would be generated from operations of the future residential and commercial buildings and from traffic generated by the new residences and commercial uses. The net increase in emissions generated by these activities and other secondary sources have been quantitatively estimated and compared to the applicable thresholds of significance recommended by SCAQMD.

AQMP Consistency

SCAQMD's CEQA Handbook suggests an evaluation of the following two criteria to determine whether a project involving a legislative land use action (such as the proposed General Plan land use and zoning designation changes) 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

Short-term construction-generated emissions of criteria air pollutants and ozone precursors from development of the proposed Project were assessed in accordance with methods recommended by SCAQMD. The proposed Project's regional emissions were modeled using the California Emissions Estimator Model (CalEEMod), as recommended by SCAQMD. CalEEMod was used to determine whether short-term construction-related emissions of criteria air pollutants would exceed applicable regional thresholds and where mitigation would be required. Modeling was based on Project-specific data and predicted short-term construction-generated emissions were compared with applicable SCAQMD regional thresholds for determination of significance.

In addition, to determine whether or not construction activities associated with development of the proposed Project would create significant adverse localized air quality impacts on nearby sensitive receptors, the worst-case daily emissions contribution from the proposed Project were compared to SCAQMD's LSTs that are based on the pounds of emissions per day that can be generated by a project without causing or contributing to adverse localized air quality impacts. The daily total onsite combustion, mobile, and fugitive dust emissions associated with construction were evaluated against SCAQMD's LSTs as appropriate for each activity.

For construction activity, DPM is the primary toxic air contaminant emitted. Construction emissions rates for PM₁₀ (DPM) were calculated from the CalEEMod construction emissions modeling conducted for the proposed Project's Air Quality Assessment and air dispersion modeling was performed. The results were then compared to the SCAQMD's recommended thresholds.

Operations

Long-term (i.e., operational) regional emissions of criteria air pollutants and precursors, including mobile- and area-source emissions from the proposed Project, were also quantified using the CalEEMod computer model. Area-source emissions were modeled according to the size and type of the land uses proposed. Mass mobile-source emissions were modeled based on the increase in daily vehicle trips that would result from the proposed Project. Trip generation rates were available from the traffic impact analysis prepared for the proposed Project (see Appendix O of this Supplemental Draft EIR). Predicted long-term operational emissions were compared with applicable SCAQMD thresholds for determination of significance.

5.1.6 ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR addressed air quality impacts on pages 5.2-45 through 5.2-72. The GPU FEIR determined that the GPU is inconsistent with the South Coast Air Quality Management Plan (AQMP) because buildout under the GPU would exceed the population estimates assumed for the AQMP and would cumulatively contribute to the nonattainment designations of the South Coast Air Basin (SoCAB). Air pollutant emissions associated with buildout of the GPU would cumulatively contribute to the nonattainment designations in the SoCAB. The GPU FEIR included Mitigation Measure AQ-2; however, due to the magnitude and scale of the land uses that would be developed, no mitigation measures are available that would reduce operation and construction impacts below South Coast AQMD thresholds. Therefore, the GPU FEIR determined that impacts related to the AQMP, and air quality emissions would remain significant and unavoidable.

The GPU FEIR also determined that construction activities associated with buildout of the GPU could generate short-term emissions that exceed the South Coast AQMD'S significance thresholds during this time and cumulatively contribute to the nonattainment designations of the SoCAB. Implementation of Mitigation Measure AQ-1 would reduce criteria air pollutant emissions from construction-related activities to the extent feasible. However, the GPU FEIR determined that construction time frames and equipment for site-specific development projects have a potential for multiple development projects to be constructed at one time, resulting in significant construction-related emissions. Thus, impacts were determined to be significant and unavoidable.

In addition, the GPU FEIR determined that buildout of the GPU would generate long-term emissions that exceed the daily South Coast AQMD thresholds for VOC, NO_x, and CO. Emissions of VOC and NO_x are precursors to the formation of O₃. In addition, NO_x is a precursor to the formation of particulate matter (PM₁₀ and PM_{2.5}). Therefore, emissions of VOC and NO_x that exceed the South Coast AQMD regional significance thresholds would contribute to the O₃ and particulate matter (PM₁₀ and PM_{2.5}) nonattainment designation of the SoCAB. Therefore, operational air quality impacts associated with the GPU were determined to be significant and unavoidable.

The GPU FEIR also determined that because existing sensitive receptors may be close to project-related construction activities and large emitters of onsite operation-related criteria air pollutant emissions, construction and operation emissions generated by individual development projects have the potential to exceed South Coast AQMD'S Local Significance Thresholds (LSTs). The GPU FEIR describes that Mitigation Measures AQ-1 and AQ-2 would reduce the regional construction and operation emissions associated with buildout of the GPU and therefore also result in a reduction of localized construction- and operation-related criteria air pollutant emissions, to the extent feasible. However, even with the implementation of these mitigation measures, impacts would remain significant and unavoidable.

The GPU FEIR also describes that buildout of the GPU could expose sensitive receptors to substantial concentrations of toxic air contaminants (TAC). Mitigation Measure AQ-3 was included to ensure mobile sources of TACs not covered under South Coast AQMD permits are considered during subsequent, project-level environmental review by the City of Santa Ana. The GPU FEIR describes that individual development projects would be required to meet the incremental risk thresholds established by South Coast AQMD, with implementation of Mitigation Measure AQ-3, and TACs would be less than significant at the project level but would result in a cumulative contribution to health risk that is significant and unavoidable. The GPU FEIR determined that the GPU land uses are not anticipated to produce odors, and Mitigation Measure AQ-4 would ensure that odor impacts are minimized, and facilities would comply with South Coast AQMD Rule 402. Thus, impacts related to odors were determined to be less than significant.

Proposed Specific Plan Project

IMPACT AQ-1: THE PROJECT WOULD RESULT IN A CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF THE APPLICABLE AIR QUALITY PLAN.

Significant and Unavoidable Impact. The SCAQMD's 2022 AQMP, which was adopted on December 2, 2022, is the applicable air quality plan for the City of Santa Ana. Pursuant to Consistency Criterion No. 1, the SCAQMD AQMP is the applicable air quality plan for the proposed Project. Projects that are consistent with the regional population, housing, and employment forecasts identified by SCAG are considered to be consistent with the AQMP growth projections, since the forecast assumptions by SCAG forms the basis of the land use and transportation control portions of the AQMP. Additionally, because SCAG's regional growth forecasts are based upon, among other things, land uses designated in general plans and specific plans, a project that is consistent with the land use designated in a general plan would also be consistent with the SCAG's regional forecast projections, and thus also with the AQMP growth projections.

The Project site is located within the GPU South Bristol Street Focus Area and has a GPU designation of District Center-High (DC-5), which has a maximum FAR of 5.0, or 125 dwelling units per acre (du/ac) and a maximum height of 25 stories that allows up to 8,733,780 SF of mixed uses, inclusive of residential uses, within the Project site. The GPU was adopted in April 2022 and went into effect on May 26, 2022, prior to the SCAQMD 2022 AQMP.

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 General Plan 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."

The Project proposes a new mixed-use development that would result in a FAR of 2.7, which is below the DC-5 allowable FAR of 5.0. The proposed mix of residential, commercial, hotel, senior living, and open space would be consistent with the General Plan DC-5 land use designation; and the FAR of 2.7 would be within the anticipated General Plan buildout. Thus, the growth related to the proposed Project is consistent with the AQMP. As shown on Table 5.10-8 (Section 5.10 Population and Housing), the Project buildout of 9,238 residents would be 48 percent of the GPU FEIR buildout for the South Bristol Street Focus Area, and population growth from the proposed Project would not exceed the growth identified in the GPU FEIR. Also, as shown on Table 5.10-9 (Section 5.10 Population and Housing), the proposed Project would result in a total of 1,092 employees at buildout and full occupancy. These employees would consist of approximately 14 percent of the GPU projected increase in employment from buildout of the South Bristol Street Focus Area. Therefore, employment growth from buildout of the proposed Project would not exceed the growth identified in the GPU FEIR. Therefore, the proposed Project would be within and consistent with SCAG's growth projections, and within the growth assumptions of the AQMP. Thus, the proposed Project would comply with AQMD AQMP Consistency Criterion No. 1.

In addition, implementing redevelopment of the site, the proposed Project would utilize existing infrastructure such as roadways, drainage, sewer, water, and other infrastructure, and would be consistent with the SCAG objective to "Encourage patterns of urban development and land use that reduce costs in infrastructure construction and make better use of existing facilities." As a result, the proposed Project would comply with Consistency Criterion No. 1 listed above in the Methodology Section.

Regarding Consistency Criterion No. 2, which evaluates the potential of the proposed Project to increase the frequency or severity of existing air quality violations; as described previously, an impact related to Consistency Criterion No. 2 would occur if the long-term emissions associated with the proposed Project would exceed SCAQMD's regional significance thresholds for operation-phase emissions. As detailed below in Impact AQ-2, construction and operation of the proposed Project would exceed the threshold of significance

for emissions of NO_x and ROG. Although GPU FEIR Mitigation Measure AQ-1 requires the off-road construction equipment greater than 50 horsepower to meet CARB Tier 4 Final emissions standards, and Project specific Mitigation Measure AQ-1 provides for construction exhaust and dust controls, construction emissions associated with NO_x would remain above the SCAQMD's threshold.

Also, as detailed below, Mitigation Measure AQ-3 requires a Transportation Demand Management (TDM), Mitigation Measure AQ-4 prohibits fireplaces, and Mitigation Measure AQ-6 requires the Project to use "Super-Compliant" low VOC paints to reduce operational ROG emissions. However, ROG emissions during operation of the Project at buildout would remain above the SCAQMD's threshold. There are no feasible mitigation measures that would reduce NO_x and ROG emissions to below the SCAQMD thresholds. Therefore, the proposed Project would result in an impact related to Consistency Criterion No. 2. As a result, impacts related to consistency with the AQMP would be significant and unavoidable. This is consistent with the impacts identified in the GPU FEIR.

Overall, despite the proposed Project's consistency with SCAG's regional growth forecasts and the GPU buildout of the South Bristol Street Focus Area per the DC-5 designation, the proposed Project would lead to increased regional air quality operational emissions that would exceed thresholds. Therefore, the proposed Project would result in a conflict with, or obstruct, implementation of the AQMP and impacts would be significant and unavoidable after implementation of mitigation measures that are detailed below. This finding is consistent with the findings of the GPU FEIR related to criteria emissions.

IMPACT AQ-2: THE PROJECT WOULD RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE OF A CRITERIA POLLUTANT FOR WHICH THE PROJECT REGION IS IN NON-ATTAINMENT UNDER AN APPLICABLE FEDERAL OR STATE AMBIENT AIR QUALITY STANDARD.

Construction

Significant and Unavoidable Impact. Construction activities associated with the proposed Project would occur in phases and result in emissions of CO, VOCs, NO_x, SO_x, PM₁₀, and PM_{2.5}. Pollutant emissions associated with construction would be generated from the following: (1) demolition, grading, and excavation; (2) construction workers traveling to and from the Project site; (3) delivery and hauling of construction supplies to, and debris and soils export from, the Project site; (4) fuel combustion by onsite construction equipment; (5) building construction; application of architectural coatings; and paving. These construction activities would temporarily create emissions of dust, fumes, equipment exhaust, and other air contaminants. However, construction activities would be limited to the hours between 7:00 am to 8:00 pm, Monday through Saturday, excluding federal holidays, per Municipal Code Section 18-314, Special Provisions, with exception to some concrete pour activities that could occur in the evening or early morning pursuant to specific construction permitting for the activity.

The construction phasing for the proposed Project is planned to be implemented over a period of approximately nine years. Construction of Phase 1 is planned to commence in the first quarter of 2026 with completion in the first quarter of 2030 (approximately 42 months). Phase 2 is expected to commence construction in the second quarter of 2030 with completion in the fourth quarter of 2032 (approximately 44 months). Phase 3 is planned to commence construction in the first quarter of 2033 with completion in the second quarter of 2036 (approximately 40 months). Phase 1 includes an export of approximately 640,550 cubic yards (cy) and an import of approximately 5,000 cy. Phase 2 includes an export of approximately 214,906 cy and an import of approximately 2,000 cy; and Phase 3 includes an export of approximately 484,869 cy and import of approximately 3,000 cy. The maximum daily construction emissions were estimated using CalEEMod; and the modeling includes compliance with SCAQMD Rules 403, 431.2, 1113, and 1186 / 1186.1 (described above), which are requirements that would reduce air contaminants during construction.

Construction Phase 1. Table 5.1-8 provides the maximum daily unmitigated emissions of criteria air pollutants from construction of Phase 1 of the proposed Project and shows that SCAQMD thresholds would be exceeded for NO_x and ROG (VOC). The majority of NO_x emissions occur from construction equipment exhaust from the excavation, grading, and soils export/import needed for the underground parking that is included within the Phase 1 construction. The majority of ROG emissions would be generated during the architectural coatings phase of construction.

Table 5.1-8: Maximum Peak Unmitigated Phase 1 Construction Emissions

Construction Year	Emissions (Maximum Pounds Per Day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Year 2026	20.42	312.60	272.02	1.21	62.19	19.19
Year 2027	18.00	100.28	286.37	0.36	61.94	16.43
Year 2028	17.40	96.06	274.90	0.36	61.72	16.23
Year 2029	131.30	91.06	239.20	0.36	61.57	16.10
Year 2030	131.20	6.72	34.53	0.01	10.30	2.46
Offsite Improvements	3.17	29.09	35.60	0.07	4.27	1.74
Total Maximum Emissions	131.30	312.60	286.37	1.21	62.19	19.19
SCAQMD Threshold	75	100	550	150	150	55
Exceed SCAQMD Threshold?	Yes	Yes	No	No	No	No

Source: Air Quality Assessment, Appendix B.

However, the GPU FEIR Mitigation Measure AQ-1 requires the off-road construction equipment greater than 50 horsepower to meet CARB Tier 4 Final emissions standards in order to reduce diesel exhaust construction emissions. Project specific Mitigation Measure AQ-2 requires the proposed Project to use “Super-Compliant” low VOC paints to reduce ROG emissions to less than significant levels. Table 5.1-9 shows that despite the implementation of mitigation, construction emissions associated with NO_x during Phase 1 of construction would remain above the SCAQMD’s threshold. Therefore, criteria emissions impacts related to construction of Phase 1 would be significant and unavoidable.

Table 5.1-9: Maximum Peak Mitigated Phase 1 Construction Emissions

Construction Year	Emissions (Maximum Pounds Per Day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Year 2026	14.87	158.10	225.96	0.96	60.20	14.84
Year 2027	12.87	52.72	240.47	0.28	60.19	14.83
Year 2028	12.50	51.27	229.02	0.28	60.19	14.83
Year 2029	24.27	48.32	193.52	0.28	60.19	14.83
Year 2030	24.20	3.30	29.81	0.00	10.24	2.40
Offsite Improvements	2.31	10.08	47.53	0.08	3.39	0.93
Total Maximum Emissions	24.27	158.10	240.47	0.96	60.20	14.84
SCAQMD Threshold	75	100	550	150	150	55
Exceed SCAQMD Threshold?	No	Yes	No	No	No	No

Source: Air Quality Assessment, Appendix B.

Construction Phase 2. Table 5.1-10 provides the maximum daily unmitigated emissions of criteria air pollutants from construction of Phase 2 of the proposed Project and shows that SCAQMD thresholds would be exceeded for ROG and NO_x from construction equipment exhaust and architectural coatings, respectively.

Table 5.1-10: Maximum Peak Unmitigated Phase 2 Construction Emissions

Construction Year	Emissions (Maximum Pounds Per Day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Year 2030	17.60	151.33	173.53	0.36	17.08	11.25
Year 2031	11.77	93.18	176.09	0.27	16.88	5.93
Year 2032	127.92	59.64	126.85	0.20	17.55	5.18
SCAQMD Threshold	75	100	550	150	150	55
Exceed SCAQMD Threshold?	Yes	Yes	No	No	No	No

Source: Air Quality Assessment, Appendix B.

However, GPU FEIR Mitigation Measure AQ-1 for CARB Tier 4 Final off-road construction equipment standards and Project Mitigation Measure AQ-2 requiring use of “Super-Compliant” low VOC paints would be required to be implemented reduce ROG and NO_x emissions to less than significant levels, as shown in Table 5.1-11. Therefore, criteria emissions impacts related to construction of Phase 2 would be less than significant with incorporation of mitigation.

Table 5.1-11: Maximum Peak Mitigated Phase 2 Construction Emissions

Construction Year	Emissions (Maximum Pounds Per Day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Year 2030	1.34	26.03	66.82	0.20	11.80	5.56
Year 2031	4.58	25.40	99.22	0.14	14.56	3.81
Year 2032	27.75	22.84	83.72	0.11	16.49	4.21
SCAQMD Threshold	75	100	550	150	150	55
Exceed SCAQMD Threshold?	No	No	No	No	No	No

Source: Air Quality Assessment, Appendix B.

Construction Phase 3. Table 5.1-12 provides the maximum daily unmitigated emissions of criteria air pollutants from construction of Phase 3 of the proposed Project and shows that SCAQMD thresholds would be exceeded for NO_x and ROG (VOC). Consistent with Phase 1, the majority of NO_x emissions would occur from construction equipment exhaust and the majority of ROG emissions would be generated during the architectural coatings phase of construction.

Table 5.1-12: Maximum Peak Unmitigated Phase 3 Construction Emissions

Construction Year	Emissions (Maximum Pounds Per Day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Year 2033	16.57	188.71	190.30	0.91	40.42	13.43
Year 2034	19.47	181.23	271.93	0.91	93.32	23.38
Year 2035	19.30	85.67	291.78	0.44	93.24	23.31
Year 2036	121.86	89.87	297.01	0.45	109.27	27.04
SCAQMD Threshold	75	100	550	150	150	55
Exceed SCAQMD Threshold?	Yes	Yes	No	No	No	No

Source: Air Quality Assessment, Appendix B.

Consistent with Phase 2 construction, GPU FEIR Mitigation Measure AQ-1 for CARB Tier 4 Final off-road construction equipment standards and Project Mitigation Measure AQ-2 requiring use of “Super-Compliant” low VOC paints would be required to be implemented reduce ROG and NOx emissions to less than significant levels, as shown in Table 5.1-13. Therefore, criteria emissions impacts related to construction of Phase 3 would be less than significant with incorporation of mitigation.

Table 5.1-13: Maximum Peak Mitigated Phase 3 Construction Emissions

Construction Year	Emissions (Maximum Pounds Per Day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Year 2033	2.85	86.39	109.62	0.66	37.12	9.62
Year 2034	16.01	83.56	233.59	0.66	92.48	22.61
Year 2035	15.93	55.26	253.90	0.37	92.47	22.61
Year 2036	38.25	57.50	254.98	0.37	108.54	26.37
SCAQMD Threshold	75	100	550	150	150	55
Exceed SCAQMD Threshold?	No	No	No	No	No	No

Source: Air Quality Assessment, Appendix B.

Operation

Less than Significant with Mitigation Incorporated. Implementation of the proposed Project would result in long-term emissions of criteria air pollutants from area sources generated by the proposed commercial and residential uses, such as vehicular emissions, natural gas consumption, landscaping, applications of architectural coatings, and use of consumer products.

Operation Phase 1. The emissions from the proposed Project are primarily from vehicle trips. As described in Section 5.14, *Transportation*, the Phase 1 portion of the proposed Project would generate 4,167 “net” daily trips, with 545 “net” trips in the AM peak hour and 359 “net” trips in the PM peak hour on a “typical” weekday.

Table 5.1-14: Unmitigated Phase 1 Increase in Operational Emissions

Source	Emissions (Maximum Pounds Per Day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Total Existing Phase 1 Area Emissions	60.38	29.01	291.11	0.51	45.79	2.34
Phase 1 Generated Emissions						
Mobile Emissions	44.84	26.96	294.74	0.75	29.96	5.62
Area Source Emissions	77.10	1.57	177.45	0.01	0.15	0.20
Energy Emissions	0.45	7.90	4.69	0.05	0.62	0.62
Phase 1 Total Emissions	122.39	36.43	476.88	0.81	30.73	6.44
Net Emissions	62.01	7.42	185.78	0.30	-15.06	4.10
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	Yes	No	No	No	No	No

Source: Air Quality Assessment, Appendix B.

As shown, emissions from operation of Phase 1 of the proposed Project would exceed the thresholds of significance for ROG. The GPU EIR Mitigation Measure AQ-2 requires electrical hookups for refrigerated delivery trucks. Additionally, Project Mitigation Measures AQ-3 through AQ-6 have been included to reduce operational emissions. Mitigation Measure AQ-3 requires the implementation of a Transportation Demand

Management (TDM) program to reduce single occupant vehicle trips and encourage transit. Mitigation Measure AQ-4 prohibits the use of permanent wood-burning devices (consistent with SCAQMD Rule 445), and Mitigation Measure AQ-5 requires all landscaping equipment used on site to be 100 percent electrically powered. Mitigation Measure AQ-6 requires the implementation of “Super-Compliant” low VOC paint during operational maintenance.

Table 5.1-15 identifies that with implementation of mitigation, emissions would be reduced to below SCAQMD thresholds. Therefore, Phase 1 operational emissions would be less than significant with incorporation of mitigation.

Table 5.1-15: Mitigated Phase 1 Increase in Operational Emissions

Source	Emissions (Maximum Pounds Per Day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Total Existing Phase 1 Area Emissions	60.38	29.01	291.11	0.51	45.79	2.34
Phase 1 Generated Emissions						
Mobile Emissions	38.87	22.83	247.90	0.62	24.84	4.66
Area Source Emissions	51.14	0.00	0.00	0.00	0.00	0.00
Energy Emissions	0.41	7.25	4.37	0.05	0.57	0.57
Phase 1 Total Emissions	90.42	30.08	252.27	0.67	25.41	5.23
Net Emissions	30.04	1.07	-38.83	0.16	-20.38	2.89
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Source: Air Quality Assessment, Appendix B.

Operation Phase 2. Similar to Phase 1, Project-generated emissions from operation of Phase 2 would be primarily associated with motor vehicle use and area sources, such as the use of landscape maintenance equipment and architectural coatings. Phase 2 is smaller in size than Phase 1. Phase 2 is forecast to generate 3,241 “net” daily trips, with 293 “net” trips in the AM peak hour and 271 “net” trips in the PM peak hour on a “typical” weekday. Table 5.1-16 shows that the Phase 2 unmitigated operational emissions would be below the SCAQMD thresholds for all criteria pollutants. Therefore, operational emissions for Phase 2 would result in a less than significant impact.

Table 5.1-16: Unmitigated Phase 2 Increase in Operational Emissions

Source	Emissions (Maximum Pounds Per Day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Total Existing Phase 2 Area Emissions	9.41	8.46	43.57	39.84	1.54	0.35
Phase 2						
Mobile Emissions	14.69	8.90	103.84	0.28	11.76	2.18
Area Source Emissions	32.70	0.71	80.15	0.00	0.06	0.08
Energy Emissions	0.15	2.51	1.11	0.02	0.20	0.20
Phase 2 Total Emissions	47.54	12.12	185.10	0.30	12.02	2.46
Net Emissions	38.13	3.66	141.53	-39.54	10.48	2.11
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Source: Air Quality Assessment, Appendix B.

Operation Phase 3. Similar to Phase 1 and Phase 2, Project-generated emissions from operation of Phase 3 would be primarily associated with motor vehicle use and area sources, such as the use of landscape maintenance equipment and architectural coatings. Phase 3 of the proposed Project is forecast to result in a reduction of 80 fewer “net” daily trips than the existing development on the site; with 381 “net” fewer trips in the AM peak hour and 58 “net” fewer trips in the PM peak hour on a “typical” weekday. Table 5.1-17 shows that Phase 3 unmitigated operational emissions would be below the SCAQMD thresholds for all criteria pollutants. Therefore, operational emissions for Phase 3 would result in a less than significant impact.

Table 5.1-17: Unmitigated Phase 3 Increase in Operational Emissions

Source	Emissions (Maximum Pounds Per Day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Total Existing Emissions	45.60	21.91	219.86	0.38	7.79	1.77
Phase 3						
Mobile Emissions	18.72	11.81	145.76	0.41	17.69	3.27
Area Source Emissions	51.58	1.18	132.84	0.01	0.09	0.12
Energy Emissions	1.26	21.52	9.25	0.14	1.74	1.74
Phase 3 Total Emissions	71.56	34.52	287.85	0.55	19.52	5.13
Net Emissions	25.96	12.61	68.00	0.17	11.72	3.36
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Source: Air Quality Assessment, Appendix B.

Overlapping Construction and Operation Emissions

Significant and Unavoidable Impact. As the proposed Project would be constructed in phases, it is likely that portions of the proposed Project would be operational during phases of construction. Pollutant emissions from construction and operational activities would combine to exceed daily thresholds for ROG and NO_x, as detailed below.

Phase 1 Operations + Phase 2 Construction. Phase 1 has the potential to be operational during Phase 2 construction. The overlapping emissions of Phase 1 operations and Phase 2 construction are listed in Table 5.1-18, which shows that these overlapping emissions would exceed SCAQMD thresholds for ROG and NO_x and that Mitigation Measures AQ-1 through AQ-6 would be required.

Table 5.1-18: Unmitigated Overlapping Emissions - Phase 1 Operations + Phase 2 Construction

Source	Emissions (Maximum Pounds Per Day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Phase 1 Operations	62.01	7.42	185.78	0.30	-15.06	4.10
Phase 2 Construction	127.92	151.33	176.09	0.36	17.55	11.25
Total Unmitigated Overlapping Emissions	189.93	158.75	361.87	0.66	2.49	15.34
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	Yes	Yes	No	No	No	No

Source: Air Quality Assessment, Appendix B.

Table 5.1-19 shows that overlapping emissions would continue to exceed SCAQMD thresholds for ROG after implementation of Mitigation Measures AQ-1 through AQ-6. The majority of the proposed Project’s ROG emission exceedances are from consumer products that the City cannot control emissions of; and therefore, cannot feasibly be reduced below the SCAQMD thresholds. As a result, impacts from overlapping emissions of Phase 1 operations and Phase 2 construction would be significant and unavoidable.

Table 5.1-19: Mitigated Overlapping Emissions - Phase 1 Operations + Phase 2 Construction

Source	Emissions (Maximum Pounds Per Day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Phase 1 Operations	30.04	1.07	-38.83	0.16	-20.38	2.89
Phase 2 Construction	27.75	26.03	99.22	0.20	16.49	5.56
Total Mitigated Overlapping Emissions	57.79	27.10	60.39	0.35	-3.89	8.45
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	Yes	No	No	No	No	No

Source: Air Quality Assessment, Appendix B.

Phase 1 Operations + Phase 2 Operations + Phase 3 Construction. Phase 1 and Phase 2 have the potential to be operational during Phase 3 construction. The overlapping emissions of Phase 1 and Phase 2 operations and Phase 3 construction are listed in Table 5.1-20, which shows that these overlapping emissions would exceed SCAQMD thresholds for ROG, NO_x, and CO and that Mitigation Measures AQ-1 through AQ-6 would be required.

Table 5.1-20: Unmitigated Overlapping Emissions - Phases 1 and 2 Operations + Phase 3 Construction

Source	Emissions (Maximum Pounds Per Day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Phase 1 Operations	62.01	7.42	185.78	0.30	-15.06	4.10
Phase 2 Operations	38.13	3.66	141.53	-39.54	10.48	2.11
Phase 3 Construction	121.86	188.71	297.01	0.91	109.27	27.04
Total Unmitigated Overlapping Emissions	222.01	199.79	624.31	-38.33	104.69	33.25
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	Yes	Yes	Yes	No	No	No

Source: Air Quality Assessment, Appendix B.

Table 5.1-21 shows that overlapping emissions would continue to exceed SCAQMD thresholds for ROG and NO_x after implementation of Mitigation Measures AQ-1 through AQ-6. As detailed previously, the majority of the proposed Project’s emission exceedances are from consumer product and mobile sources and cannot feasibly be reduced below the SCAQMD thresholds. Emissions from motor vehicles are controlled by state and federal standards and the City and proposed Project have no control over these standards. Therefore, impacts from overlapping emissions of Phases 1 and 2 operations and Phase 3 construction would be significant and unavoidable.

Table 5.1-21: Mitigated Overlapping Emissions - Phases 1 and 2 Operations + Phase 3 Construction

Source	Emissions (Maximum Pounds Per Day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Phase 1 Operations	30.04	1.07	-38.83	0.16	-20.38	2.89
Phase 2 Operations	24.36	0.70	37.51	-39.61	7.57	1.49
Phase 3 Construction	38.25	86.39	254.98	0.66	108.54	26.37
Total Unmitigated Overlapping Emissions	92.64	88.15	253.66	-38.79	95.73	30.75
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	Yes	Yes	No	No	No	No

Source: Air Quality Assessment, Appendix B.

Buildout Operational Emissions

Significant and Unavoidable Impact. The mitigated operational emissions from Phase 1, Phase 2, Phase 3 combined are provided in Table 5.1-22, which shows that after implementation of Mitigation Measures AQ-

1 through AQ-6 the net increase in operational emissions from the proposed Project at buildout would exceed thresholds for ROG. As detailed previously, ROG emissions are generated from consumer products, the emissions of which are not controlled by either the City or the applicant. Therefore, operational air quality impacts would remain significant and unavoidable after implementation of mitigation.

Table 5.1-22: Mitigated Project Buildout Operational Emissions

Source	Emissions (Maximum Pounds Per Day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Existing Operational Emissions						
Phase 1 Existing	60.38	29.01	291.11	0.51	45.79	2.34
Phase 2 Existing	9.41	8.46	43.57	39.84	1.54	0.35
Phase 3 Existing	45.60	21.91	219.86	0.38	7.79	1.77
Total Existing Operational Emissions	115.38	59.38	554.53	40.73	55.13	4.46
Proposed Project Operational Emissions						
Phase 1 Operations	90.42	30.08	252.27	0.67	25.41	5.23
Phase 2 Operations	33.76	9.16	81.08	0.23	9.12	1.84
Phase 3 Operations	51.49	27.72	114.08	0.42	14.30	3.90
Total Project Operational Emissions	175.67	66.95	447.43	1.31	48.83	10.97
Net Operational Emissions	60.28	7.57	-107.10	-39.42	-6.30	6.51
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	Yes	No	No	No	No	No

Source: Air Quality Assessment, Appendix B.

Health Impacts of Exceeded Criteria Pollutant Emissions. The significant and unavoidable impact with respect to NO_x emissions is due largely to vehicle trips. NO_x is a “criteria” pollutant, a pollutant that is regulated by the USEPA pursuant to the Federal Clean Air Act. The potential health impacts of criteria pollutants are analyzed on a regional level, not on a facility/project level. The SCAQMD and the San Joaquin Valley Unified Air Pollution Control District (SJVAPD), experts in the area of air quality, both recognize that a meaningful, accurate analysis of potential health impacts resulting from criteria pollutants is not currently possible and not likely to yield substantive information that promotes informed decision making. The SJVAPD, in its amicus curiae brief for the recent California Supreme Court decision in *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, explained that “it is not feasible to conduct a [health impact analysis] for criteria air pollutants because currently available computer modeling tools are not equipped for this task.” The SJVAPD described a project-specific health impact analysis as “not practicable and not likely to yield valid information” because “currently available modeling tools are not well suited for this task.” The SJVAPD further noted that “...the CEQA air quality analysis for criteria pollutants is not really a localized, project-level impact analysis but one of regional” cumulative impacts.

It should also be noted that CO, NO_x, and ROG are “precursor” pollutants, which makes analysis of potential health impacts even more difficult. CO, NO_x, and ROG are precursors to ozone, which is formed in the atmosphere from the chemical reaction of CO, NO_x, and ROG in the presence of sunlight. As explained by the SCAQMD in its amicus curiae brief for *Sierra Club v. County of Fresno*, it takes time and the influence of meteorological conditions for these reactions to occur, so ozone may be formed at a distance downwind from the sources.” Given this, “...it takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels over an entire region.” Therefore, SCAQMD opined that while it “may be feasible” for large, regional projects with very high emissions of CO, NO_x, and ROG to conduct an accurate health impact analysis, SCAQMD staff does not currently know of a way to accurately quantify ozone-related health impacts caused by CO, NO_x, or ROG emissions from relatively small projects.

Thus, the difficulties with preparing potential health impact analysis related to the proposed Project’s CO, NO_x, and ROG emissions are twofold. First, current modeling is not capable of correlating emissions of

criteria pollutants to concentrations that can be reasonably linked to specific health impacts. Second, CO, NO_x, and ROG are precursor emissions and concentrations of CO, NO_x, and ROG are impacted by regional atmospheric conditions. CO, NO_x, and ROG emitted by the proposed Project may, depending upon interactions with the sun and other emissions, convert to ozone by complex chemical processes. Thus, there is a significant level of unpredictability associated with such conversion to ozone, as noted by the SCAQMD and the SJVAPD. It should also be noted that this Draft Supplemental EIR does identify health concerns related to CO and NO_x emissions. Table 5.1-1 includes a list of criteria pollutants and summarizes common sources and effects. Thus, this Draft Supplemental EIR's analysis is reasonable and intended to foster informed decision making.

IMPACT AQ-3: THE PROJECT WOULD NOT EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS.

Localized Construction Emissions

Less than Significant with Mitigation Incorporated. As described previously, the daily construction emissions generated onsite by the proposed Project are evaluated against SCAQMD's LSTs to determine whether the emissions would cause or contribute to adverse localized air quality impacts. The nearest offsite sensitive receptor to the Phase 1 construction area is a multi-family residential building located approximately 130 feet (40 meters) to the west. The nearest offsite sensitive receptor to the Phase 2 construction area is a multi-family residential building located 410 feet (125 meters) to the north. The nearest offsite sensitive receptor to the Phase 3 construction area is a multi-family residential building located 130 feet (40 meters) to the west.

Construction Phase 1. The SCAQMD LST methodology provides thresholds for projects with boundaries located 25, 50, 100, 200, and 500 meters away and projects disturbing 1-, 2-, and 5-acres in size. The nearest receptor is 40 meters away and construction of Phase 1 is estimated to grade a maximum of 4 acres per day. Therefore, LSTs for receptors at 40 meters were interpolated. Table 5.1-23 identifies daily localized onsite emissions that are estimated to occur during construction of Phase 1 of the proposed Project. As shown, emissions during the peak site preparation and grading construction activity of Phase 1 would exceed the SCAQMD's localized significance thresholds for NO_x and PM_{2.5}.

Table 5.1-23: Summary of Phase 1 Unmitigated Localized Construction Emissions

Construction Activity	Emissions (Maximum Pounds Per Day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Demolition	123.91	114.03	20.59	7.01
Site Preparation	174.98	172.85	17.68	12.11
Grading	163.35	165.42	11.61	8.11
Building Construction (2026)	59.12	77.80	2.27	2.09
Building Construction (2027)	56.35	77.63	2.02	1.86
Building Construction (2028)	53.55	77.61	1.80	1.66
Building Construction (2029)	51.49	77.41	1.65	1.52
Paving	38.75	59.51	1.43	1.32
Architectural Coating (2029)	4.76	6.67	0.08	0.07
Architectural Coating (2030)	4.71	6.64	0.07	0.06
Offsite Improvements	29.09	35.6	4.27	1.74
SCAQMD Localized Screening Threshold (for 4.0 acres at 40 meters)	154	1,331	24	7
Exceed SCAQMD Threshold?	Yes	No	No	Yes

Source: Air Quality Assessment, Appendix B.

However, as described previously GPU FEIR Mitigation Measure AQ-1 for CARB Tier 4 Final off-road construction equipment standards would reduce NOx emissions and Project Mitigation Measure AQ-1, Construction Exhaust and Dust Control, would reduce PM_{2.5} emissions to below the SCAQMD thresholds for localized significance, as shown in Table 5.1-24. Therefore, LST impacts from construction of Phase 1 would be less than significant with incorporation of mitigation.

Table 5.1-24: Summary of Phase 1 Mitigated Localized Construction Emissions

Construction Activity	Emissions (Maximum Pounds Per Day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Demolition	9.01	36.35	15.66	2.48
Site Preparation	5.18	56.62	10.42	5.45
Grading	8.85	70.70	5.13	2.16
Building Construction (2026)	8.80	31.74	0.28	0.26
Building Construction (2027)	8.78	31.73	0.27	0.26
Building Construction (2028)	8.76	31.72	0.27	0.26
Building Construction (2029)	8.75	31.72	0.27	0.26
Paving	3.87	21.20	0.06	0.06
Architectural Coating (2029)	1.29	1.93	0.00	0.00
Architectural Coating (2030)	1.29	1.93	0.00	0.00
Offsite Improvements	10.08	47.53	3.39	0.93
SCAQMD Localized Screening Threshold (for 4.0 acres at 40 meters)	154	1,331	24	7
Exceed SCAQMD Threshold?	No	No	No	No

Source: Air Quality Assessment, Appendix B.

Construction Phase 2. As the nearest offsite sensitive receptor to the Phase 2 construction area is a multi-family residential building located 410 feet (125 meters) to the north and the nearest onsite receptors (Phase 1 residences) would be approximately 40 meters away. The LST threshold for a distance of 40 meters was interpolated and used in the analysis. Also, construction of Phase 2 is estimated to grade a maximum of 3.5 acres per day. Table 5.1-25 identifies daily localized onsite emissions that are estimated to occur during construction of Phase 2 of the proposed Project. As shown, emissions during the peak site preparation and grading construction activity of Phase 2 would exceed the SCAQMD’s localized significance thresholds for NO_x and PM_{2.5}.

Table 5.1-25: Summary of Phase 2 Unmitigated Localized Construction Emissions

Construction Activity	Emissions (Maximum Pounds Per Day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Demolition	108.75	112.04	12.71	5.24
Site Preparation	151.25	170.59	16.62	11.14
Grading	75.70	104.07	6.79	4.62
Building Construction (2031)	48.71	77.07	1.46	1.34
Building Construction (2032)	47.22	76.72	1.34	1.24
Paving (2030)	37.68	59.37	1.32	1.22
Paving (2031)	36.75	59.30	1.26	1.16
Architectural Coating	4.62	6.60	0.05	0.04
SCAQMD Localized Screening Threshold (for 3.5 acres at 40 meters)	144	1,226	21	7
Exceed SCAQMD Threshold?	Yes	No	No	Yes

Source: Air Quality Assessment, Appendix B.

However, as described previously GPU FEIR Mitigation Measure AQ-1 for CARB Tier 4 Final off-road construction equipment standards would reduce NO_x emissions and Project Mitigation Measure AQ-1, Construction Exhaust and Dust Control, would reduce PM_{2.5} emissions to below the SCAQMD thresholds for localized significance, as shown in Table 5.1-26. Therefore, LST impacts from construction of Phase 2 would be less than significant with incorporation of mitigation.

Table 5.1-26: Summary of Phase 2 Mitigated Localized Construction Emissions

Construction Activity	Emissions (Maximum Pounds Per Day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Demolition	9.01	36.35	8.53	1.40
Site Preparation	5.18	56.62	10.42	5.45
Grading	4.08	35.53	3.82	1.90
Building Construction (2031)	13.82	38.30	0.35	0.32
Building Construction (2032)	13.75	38.28	0.33	0.31
Paving (2030)	3.87	21.20	0.06	0.06
Paving (2031)	3.87	21.20	0.06	0.06
Architectural Coating	1.29	1.93	0.00	0.00
SCAQMD Localized Screening Threshold (for 3.5 acres at 40 meters)	144	1,226	21	7
Exceed SCAQMD Threshold?	No	No	No	No

Source: Air Quality Assessment, Appendix B.

Construction Phase 3. As the nearest offsite sensitive receptor to the Phase 3 construction area is a multi-family residential building located 130 feet (40 meters) to the west of the Project site. The nearest onsite receptors (Phase 1 and 2 residences) would be approximately 40 meters away. Thus, the LST threshold for a distance of 40 meters was interpolated and used in the analysis. Also, construction of Phase 3 is estimated to grade a maximum of 4 acres per day. Table 5.1-27 identifies daily localized onsite emissions that are estimated to occur during construction of Phase 3 of the proposed Project. As shown, emissions during the peak construction activity of site preparation during Phase 3 would exceed the SCAQMD localized significance threshold for PM_{2.5}.

Table 5.1-27: Summary of Phase 3 Unmitigated Localized Construction Emissions

Construction Activity	Emissions (Maximum Pounds Per Day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Demolition	93.05	95.60	18.36	5.42
Site Preparation	127.02	146.29	15.40	10.01
Grading (2033)	111.18	151.37	9.22	5.96
Grading (2034)	106.52	150.41	8.89	5.65
Building Construction (2034)	45.12	76.60	1.15	1.06
Building Construction (2035)	44.02	76.12	1.08	0.99
Building Construction (2036)	42.73	75.62	1.01	0.93
Paving	35.13	58.94	1.06	0.98
Architectural Coating	4.51	6.58	0.03	0.03
SCAQMD Localized Screening Threshold (for 4.0 acres at 40 meters)	154	1,331	24	7
Exceed SCAQMD Threshold?	No	No	No	Yes

Source: Air Quality Assessment, Appendix B.

However, as described previously Project Mitigation Measure AQ-1, Construction Exhaust and Dust Control, would be implemented, and would reduce PM_{2.5} emissions to below the SCAQMD thresholds for localized significance, as shown in Table 5.1-28. Therefore, LST impacts from construction of Phase 3 would be less than significant with incorporation of mitigation.

Table 5.1-28: Summary of Phase 3 Mitigated Localized Construction Emissions

Construction Activity	Emissions (Maximum Pounds Per Day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Demolition	9.01	36.35	15.05	2.39
Site Preparation	5.18	56.62	10.42	5.45
Grading (2033)	8.85	70.70	5.07	2.15
Grading (2034)	8.85	70.70	5.07	2.15
Building Construction (2034)	13.65	38.25	0.31	0.29
Building Construction (2035)	13.61	38.25	0.31	0.29
Building Construction (2036)	13.57	38.25	0.30	0.28
Paving	3.87	21.20	0.06	0.06
Architectural Coating	1.29	1.93	0.00	0.00
SCAQMD Localized Screening Threshold (for 4.0 acres at 40 meters)	154	1,331	24	7
Exceed SCAQMD Threshold?	No	No	No	No

Source: Air Quality Assessment, Appendix B.

Localized Operational Emissions

Less than Significant with Mitigation Incorporated.

Operation Phase 1. The LSTs thresholds for receptors located at 40 meters in SRA 17 were utilized in this LST analysis. The closest offsite receptors to the Phase 1 area are approximately 130 feet (40 meters) to the northwest and the closest onsite receptors would be located approximately 130 feet (40 meters) away. Although the Phase 1 area of the Project site is approximately 19.6 acres, the 5-acre LST threshold was conservatively used. The LSTs thresholds increase with the size of the site. Therefore, use of the 5-acre threshold for the 19.6-acre site provides a more conservative criteria for identification of potential impacts.

Table 5.1-29 identifies daily localized onsite emissions that are estimated to occur during operation of Phase 1 of the proposed Project. As shown, emissions during operation of Phase 1 would not exceed LST thresholds; and therefore, would not expose sensitive receptors to pollutant concentrations, and impacts would be less than significant.

Table 5.1-29: Summary of Phase 1 Unmitigated Localized Operation Emissions

Activity	Emissions (Maximum Pounds Per Day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Total Onsite Emissions	9.47	182.14	0.77	0.82
SCAQMD Localized Screening Threshold (adjusted for 5 acres at 40 meters)	173.4	1,541.6	7.2	2.43
Exceed SCAQMD Threshold?	No	No	No	No

Source: Air Quality Assessment, Appendix B.

Operation Phase 2. The LSTs thresholds for receptors located at 40 meters in SRA 17 were utilized in this analysis of Phase 2 operations. The closest offsite receptor to the Phase 2 area is located approximately 410 feet (125 meters) to the north and the closest onsite receptors would be located approximately 130 feet (40 meters) away. Although the Phase 2 area of the Project site is approximately 7.2 acres, the 5-acre LST threshold was conservatively used for Phase 2.

Table 5.1-30 identifies daily localized onsite emissions that are estimated to occur during operation of Phase 2 of the proposed Project. As shown, emissions during operation of Phase 2 would not exceed LST thresholds; and therefore, would not expose sensitive receptors to pollutant concentrations, and impacts would be less than significant.

Table 5.1-30: Summary of Phase 2 Unmitigated Localized Operation Emissions

Activity	Emissions (Maximum Pounds Per Day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Total Onsite Emissions	3.22	81.26	0.26	0.28
SCAQMD Localized Screening Threshold (for 5 acres at 40 meters)	173.4	1,541.6	7.2	2.43
Exceed SCAQMD Threshold?	No	No	No	No

Source: Air Quality Assessment, Appendix B.

Operation Phase 3. The LSTs thresholds for receptors located at 40 meters in SRA 17 were utilized in this analysis of Phase 3 operations because the closest offsite and onsite receptors to the Phase 3 area are located approximately 130 feet (40 meters) to both the east and west. Although the Phase 3 area of the Project site is approximately 14.3 acres, the 5-acre LST threshold was conservatively used for Phase 3.

Table 5.1-31 identifies daily localized onsite emissions that are estimated to occur during operation of Phase 3 of the proposed Project. As shown, emissions during operation of Phase 3 would not exceed LST thresholds; and therefore, would not expose sensitive receptors to pollutant concentrations, and impacts would be less than significant.

Table 5.1-31: Summary of Phase 3 Unmitigated Localized Operation Emissions

Activity	Emissions (Maximum Pounds Per Day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Total Onsite Emissions	22.71	142.09	1.83	1.86
SCAQMD Localized Screening Threshold (for 5 acres at 40 meters)	173.40	1,541.60	7.20	2.43
Exceed SCAQMD Threshold?	No	No	No	No

Source: Air Quality Assessment, Appendix B.

Operation at Project Buildout. Table 5.1-32 shows the combined operational emissions for the entire proposed Project at 130-foot (40 meter) distance. In addition, emissions from the 41.13-acre site were compared against the 5-acre LST threshold. Applying a 5-acre LST threshold is a very conservative approach. As shown in Table 5.1-32, unmitigated emissions generated on site by the proposed Project would exceed the LST threshold for PM_{2.5}. Therefore, operational mitigation would be required.

Table 5.1-32: Localized Significance of Operational Unmitigated Emissions at Project Buildout

Emissions Source	Emissions (Maximum Pounds Per Day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Operation of Phase 1	9.47	182.14	0.77	0.82
Operation of Phase 2	3.22	81.26	0.26	0.28
Operation of Phase 3	22.71	142.09	1.83	1.86
Total	35.40	405.49	2.86	2.96
SCAQMD Localized Screening Threshold (adjusted for 5 acres at 40 meters)	173.40	1,541.60	7.20	2.43
Exceed SCAQMD Threshold?	No	No	No	Yes

Source: Air Quality Assessment, Appendix B.

As shown on Table 5.1-33, with implementation of operational mitigation measures that prohibit fireplaces, require use of electrical landscape equipment, and use of low VOC paints, PM_{2.5} emissions would be reduced to a less than significant level. Therefore, LST impacts of Project buildout would be less than significant with incorporation of mitigation.

Table 5.1-33: Localized Significance of Operational Mitigated Emissions at Project Buildout

Emissions Source	Emissions (Maximum Pounds Per Day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Operation of Phase 1	7.25	4.37	0.57	0.57
Operation of Phase 2	2.23	0.99	0.18	0.18
Operation of Phase 3	19.10	8.22	1.54	1.54
Total	28.58	13.58	2.29	2.29
SCAQMD Localized Screening Threshold (adjusted for 5 acres at 40 meters)	173.40	1,541.60	7.20	2.43
Exceed SCAQMD Threshold?	No	No	No	No

Source: Air Quality Assessment, Appendix B.

This analysis includes separate construction and operational analysis for LSTs and does not include an analysis of overlapping construction and operational activities related to LST emissions because LSTs are based on location, distance, and site size. Construction and operational localized emissions would occur at different locations and different distances from sensitive receptors, as analyzed previously. Due to air dispersion, pollution concentrations would be different from sources at two different distances from a receptor. The LSTs are screening thresholds are conservative as the construction LST acreage is based on the maximum potential daily acreage disturbed at the closest potential receptor, while the operational LST acreage is based on the total area of the Project site. Although the Project site is greater than 41.13-acres, the 5-acre operational LSTs have been conservatively used to evaluate the proposed Project. This methodology concentrates the emissions of the entire site into 5-acres and then compares it to the threshold for the closest sensitive receptor, which identifies a maximum potential impact. In addition, SCAQMD has developed separate LSTs for construction and operations. Construction emissions are temporary and move around onsite and operational emissions are stationary. Due to the differences in nature between construction and operational emissions sources as well as differences in distances to receptors, and separate thresholds, construction and operational LSTs are evaluated separately at maximum conditions.

Friant Ranch Case

In December 2018, in the case of *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, California Supreme Court held that an EIR's air quality analysis must meaningfully connect the identified air quality impacts to the human health consequences of those impacts, or meaningfully explain why that analysis cannot be provided. As noted in the *Brief of Amicus Curiae* by the SCAQMD in the Friant Ranch case (April 6, 2015, Appendix 10.1), SCAQMD has among the most sophisticated air quality modeling and health impact evaluation capability of any of the air districts in the State, and thus it is uniquely situated to express an opinion on how lead agencies should correlate air quality impacts with specific health outcomes.

The SCAQMD discusses that it may be infeasible to quantify health risks caused by projects similar to the proposed Project, due to many factors. It is necessary to have data regarding the sources and types of air toxic contaminants, location of emission points, velocity of emissions, the meteorology and topography of the area, and the location of receptors (worker and residence). The *Brief* states that it may not be feasible to perform a health risk assessment for airborne toxics that will be emitted by a generic industrial building that was built on "speculation" (i.e., without knowing the future tenant(s). Even where a health risk assessment can be prepared, however, the resulting maximum health risk value is only a calculation of risk - it does not necessarily mean anyone will contract cancer as a result of the proposed Project. The *Brief* also cites the author of the CARB methodology, which reported that a PM_{2.5} methodology is not suited for small projects and may yield unreliable results. Similarly, SCAQMD staff does not currently know of a way to accurately quantify O₃-related health impacts caused by NO_x or ROG emissions from relatively small projects, due to photochemistry and regional model limitations. The *Brief* concludes, with respect to the Friant Ranch EIR, that although it may have been technically possible to plug the data into a methodology, the results would not have been reliable or meaningful.

On the other hand, for extremely large regional projects (unlike the proposed Project), the SCAQMD states that it has been able to correlate potential health outcomes for very large emissions sources – as part of their rulemaking activity, specifically 6,620 lbs/day of NO_x and 89,180 lbs/day of ROG were expected to result in approximately 20 premature deaths per year and 89,947 school absences due to O₃.

The proposed Project does not generate anywhere near 6,620 lbs/day of NO_x or 89,190 lbs/day of VOC emissions. As shown previously on Table 5.1-22, the peak operational emissions of the proposed Project at buildout would generate a net increase of 7.57 lbs/day of NO_x (0.1 percent of 6,620 lbs/day). The ROG emissions would be a maximum of 60.28 lbs/day of during operations (0.07 percent of 89,190 lbs/day).

Therefore, the emissions are not sufficiently high enough to use a regional modeling program to correlate health effects on a Basin-wide level. Notwithstanding, this evaluation does evaluate the proposed Project on CO, NO_x, PM₁₀, and PM_{2.5} by comparing the onsite emissions to the SCAQMD's applicable LST thresholds. In addition, a Health Risk Assessment was prepared, which is discussed below. As described previously, the proposed Project would not result in emissions that exceeded the SCAQMD's LSTs. Therefore, the emissions would not be expected to exceed the most stringent applicable federal or state ambient air quality standards for emissions of CO, NO_x, PM₁₀, and PM_{2.5}.

Diesel Health Risk Assessment

A Health Risk Assessment, included as Appendix C, was prepared to evaluate the health risk impacts as a result of exposure to Diesel Particulate Matter (DPM) during construction of the proposed Project. Onsite truck idling was estimated to occur as trucks enter and travel through the site. Although the proposed construction activities are required to comply with CARB's idling limit of 5 minutes, SCAQMD recommends that the onsite idling emissions should be estimated for 15 minutes of truck idling, which takes into account onsite idling that occurs while the trucks are waiting to check-in, travel to destination onsite, and/or check-out, etc. As such, this analysis estimated truck idling at 15 minutes, consistent with SCAQMD's recommendation.

SCAQMD recommends using a 10 in one million as the cancer risk threshold. A risk level of 10 in one million implies a likelihood that up to 10 people, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the levels of toxic air contaminants over a specified duration of time.

Construction

Less than Significant with Mitigation Incorporated. Construction would generate DPM emissions from the use of off-road diesel equipment required for demolition, grading and excavation, paving, and other construction activities. For construction activity, DPM is the primary toxic air contaminant of concern because it is the most potent TAC emitted from construction and includes hundreds of chemicals. Although DPM is a subset of PM₁₀ exhaust, this analysis conservatively assumes all PM₁₀ exhaust emissions are DPM. On-road diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment were included in the analysis, although they are typically less of a concern because they would not stay on the site for long durations. Diesel exhaust from construction equipment operating at the site potentially poses a health risk to nearby sensitive receptors. The closest sensitive receptors to the Project site are residences across South Plaza Drive to the west and across MacArthur Boulevard to the northwest.

Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer. The use of diesel-powered construction equipment would be episodic and would occur throughout the Project site. Construction activities would limit idling to no more than five minutes, pursuant to CARB standards, which would further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. Furthermore, even during the most intense period of construction, emissions of DPM would be generated from different locations on the Project site rather than in a single location because different types of construction activities (e.g., site preparation and building construction) would not occur at the same place at the same time.

The receptor with the greatest potential exposure to construction DPM source emissions are the closest residences, which are as close as 130 feet from construction activities. Using AERMOD, the closest residential and worker locations with the highest emission concentrations were identified. Table 5.1-34 shows that DPM levels would be reduced below SCAQMD thresholds for residential and worker receptors with implementation of GPU FEIR Mitigation Measure AQ-1 for CARB Tier 4 Final off-road construction equipment standards. Thus, construction DPM carcinogenic risks would be reduced to a less than significant level with incorporation of mitigation.

Table 5.1-34: Construction Diesel Particulate Matter Carcinogenic Risk

Exposure Scenario	Unmitigated Cancer Risk (Risk per Million)¹	Mitigated Cancer Risk (Risk per Million)¹	Significance Threshold (Risk per Million)	Exceeds Significance Threshold?
Offsite Residential Receptors				
Phase 1 MEIR (residences at the southwestern terminus of Orion Road) (700 feet northeast of Phase 1)	21.70	2.51	10	No
Versailles residences near the western terminus of Callen's Common (130 feet west of the Project site/Phase 1/Phase 3)	37.61	4.27	10	No
Phase 2 MEIR (residences along the south side of MacArthur Boulevard, approximately 360 feet east of Bristol Street (460 feet east of the Project site/Phase 2)	15.65	3.11	10	No
Phase 3 MEIR (at the northwest corner of MacArthur Boulevard and South Plaza Drive (292 feet northwest of the Project site)	6.80	1.24	10	No
Onsite Residential Receptors²				
Phase 1 Onsite MEIR (during Phase 2 and Phase 3 construction) at the northeast corner of Phase 1 (130 feet from Phase 2)	8.49	2.15	10	No
Phase 2 Onsite MEIR (during Phase 3 construction) at the northwest corner of Phase 2 (130 feet from Phase 3)	23.91	2.64	10	No
Recreational Receptors				
Bomo Koral Park ³	5.24	0.63	10	No
Worker Receptors				
Northeast corner of MacArthur Boulevard and South Plaza Drive	6.66	1.15	10	No

Source: Health Risk Analysis, Appendix C.

¹ The reported risk is at the closest receptor (maximally exposed individual resident (MEIR)). The maximum cancer risk is based on worst-case exposure and combines all three phases over the entire construction period and uses 95th percentile breathing rates.

² California Code of Regulations (CCR) Title 24 Part 6 requires new development to use MERV 13 air filtration on space conditioning systems and ventilation systems that provide outside air to the occupiable space of a dwelling. A MERV 13 filter has a particle removal efficiency in the range of 80 to 90 percent. An 80 percent removal efficiency was conservatively used for the purposes of this study. According to the U.S. EPA's Exposure Factor Handbook (2011), on average, people spend 90 percent of their time indoors. As residents are not always indoors, the filtration's overall effectiveness accounts for the time spent outdoors, which equates to approximately three hours per day. It is noted that this is a conservative assumption for this Project, as all of the time spent outdoors would not occur at the Project site.

³ The risk calculations at the park conservatively assume residential exposure parameters (i.e., age sensitivity factors, third trimester start age, 350 days per year exposure duration, 100 percent fraction of time at home, and 95th percentile breathing rates for third trimester to age 2 and 80th percentile breathing rates for ages 2 and greater.

The significance thresholds for DPM exposure also require an evaluation of non-cancer risk known as hazard index. 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. According to the Office of Environmental Health Hazard Assessment (OEHHA), the REL for DPM is 5 and the target organ is the respiratory system. RELs are designed to protect sensitive receptors.

A chronic hazard index of 1.0 is considered individually significant. The hazard index is calculated by dividing the chronic exposure by the reference exposure level. As shown on Table 5.1-35, the highest maximum chronic hazard index at offsite receptors during construction would be 0.003, with implementation of GPU FEIR Mitigation Measure AQ-1 for CARB Tier 4 Final off-road construction equipment standards, which is less than the 1.0 threshold. Therefore, impacts related to non-carcinogenic hazards would be less than significant with incorporation of mitigation.

Table 5.1-35: Construction Diesel Particulate Matter Chronic Hazard Index

Scenario	Concentration (µg/m ³) at Maximally Exposed Individual Receptor	Chronic Hazard
Unmitigated		
Onsite Residents	0.255	0.051
Offsite Residents/Park	0.072	0.014
Offsite Workers	0.142	0.028
Mitigated		
Onsite Residents	0.028	0.006
Offsite Residents/Park	0.018	0.004
Offsite Workers	0.015	0.003
SCAQMD Threshold		1.0
Threshold Exceeded?		No

Source: Health Risk Analysis, Appendix C.

Operation

Less than Significant Impact. The proposed Project is a mixed-use development that includes residential, senior living, hotel, and commercial uses. The proposed Project would not include any stationary TAC sources. The OEHHA *Hot Spots Program Guidance Manual for the Preparation of Risk Assessments* (OEHHA Guidance Manual) addresses health risks from airborne contaminants released by stationary sources. Stationary sources are typically industrial-type uses that emit TACs² and are regulated by and/or require permits from the Air Districts. Examples of stationary sources include metal finishing/manufacturing, chrome plating facilities, various product manufacturing (e.g., food, chemical, material, etc.), stationary diesel engines (e.g., emergency backup generators), and refineries.³ Project operations would not include any of the industrial uses listed and would not include stationary sources that emits TACs. The proposed Project also does not include a warehouse or distribution facility. Therefore, impacts related to operational DPM source emissions would be less than significant.

CO Hotspots

Less than Significant Impact. An adverse CO concentration, known as a “hot spot”, 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. In 2003, the SCAQMD estimated that 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—in order to generate a CO hot spot.

As detailed in Section 5.13, *Transportation*, at buildout, the proposed Project would result in a net increase of 1,219 trips in the AM peak hour and 688 trips in the PM peak hour. The Traffic Study prepared for the proposed Project identifies that the Project study area key roadway segments with the highest peak hour

² “Toxic air contaminant” means an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health. See Health and Safety Code Section 39655.

³ CARB and CAPCOA, *Risk Management Guidance for Stationary Sources*, July 2015, Section I.D, page 5 and Appendix A, Table A-1: Statewide ARB Air Toxics Regulations for Stationary Sources. Available at: <https://ww2.arb.ca.gov/sites/default/files/classic/toxics/rma/rmgssat.pdf>

volume are Bristol Street and MacArthur Boulevard. As shown on Table 5.1-36, the highest volume is on MacArthur Boulevard, between Main Street and SR-55 SB Ramps that would have an AM peak hour segment volume of 3,177 in year 2045 without the proposed Project; and an AM peak hour segment volume of 3,427 in year 2045 with the proposed Project. This is much lower than 44,000 vehicles per hour and is not high enough to generate a CO “hot spot” per SCAQMD. Therefore, impacts related to CO “hot spots” from operation of the proposed Project would be less than significant.

Table 5.1-36: Year 2045 Key Roadway Segment Traffic Volumes

Key Roadway Segment	Peak Hour	Direction	Without Project Segment Volume	With Project Segment Volume
Bristol Street, between Segerstrom Avenue and MacArthur Boulevard	AM	NB SB	1,240 1,620	1,378 1,654
	PM	NB SB	3,226 1,310	3,249 1,374
Bristol Street, between MacArthur Boulevard and Callen’s Common	AM	NB SB	1,042 2,618	1,188 2,486
	PM	NB SB	2,778 1,806	2,742 1,883
Bristol Street, between Callen’s Common and Sunflower Avenue	AM	NB SB	1,091 2,346	1,154 2,574
	PM	NB SB	2,773 1,688	2,772 1,733
Bristol Street, between I-405 NB Ramps and I-405 SB Ramps	AM	NB SB	2,178 3,055	2,240 3,396
	PM	NB SB	3,017 3,658	3,125 3,768
MacArthur Boulevard, between Main Street and SR-55 SB Ramps	AM	EB WB	3,177 2,718	3,427 2,785
	PM	EB WB	2,821 2,826	2,886 2,956
MacArthur Boulevard, between SR-55 SB Ramps and SR-55 NB Ramps	AM	EB WB	3,078 1,763	3,271 1,786
	PM	EB WB	1,902 2,615	1,958 2,698

Source: Traffic Study, Appendix O.

IMPACT AQ-4: THE PROJECT WOULD NOT RESULT IN OTHER EMISSIONS (SUCH AS THOSE LEADING TO ODORS) ADVERSELY AFFECTING A SUBSTANTIAL NUMBER OF PEOPLE.

Less Than Significant Impact. The proposed Project would not emit other emissions, such as those generating objectionable odors, that would affect a substantial number of people. The threshold for odor is identified by SCAQMD Rule 402, Nuisance, which states:

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

The type of facilities that are considered to result in other emissions, such as objectionable odors, include wastewater treatments plants, compost facilities, landfills, solid waste transfer stations, fiberglass

manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities.

The proposed Project would remove the existing commercial buildings and develop the site with new mixed use that would include residential, open space/recreation, retail, restaurant, and other commercial development. These land uses do not involve the types of uses that would emit objectionable odors affecting a substantial number of people. In addition, odors generated by non-residential land uses are required to be in compliance with SCAQMD Rule 402, which would prevent nuisance odors.

During construction, emissions from construction equipment, architectural coatings, and paving activities may generate odors. However, these odors would be temporary, intermittent in nature, limited to the City's allowable construction hours, and would not affect a substantial number of people. Any odors would be confined to the immediate vicinity of the construction equipment. Also, the short-term construction-related odors would cease upon the drying or hardening of the odor-producing materials.

In addition, all Project-generated solid waste would be stored in covered containers and removed at regular intervals in compliance with solid waste regulations and would not generate objectionable odors. Therefore, impacts associated with other operation- and construction-generated emissions, such as odors, would be less than significant.

5.1.7 CUMULATIVE IMPACTS

As described previously, per SCAQMD's methodology, if an individual project would result in air emissions of criteria pollutants that exceeds the SCAQMD's thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants.

As described in Impact AQ-2 above, mitigated emissions from construction would exceed regional thresholds for NO_x, and mitigated overlapping construction and operational activities would result in exceedance of regional thresholds for ROG and NO_x. Also, mitigated regional operational emissions of ROG would exceed thresholds at buildout of the proposed Project. The large majority of operational-source NO_x emissions (by weight) would be generated by vehicle emissions that neither Project applicants nor the City have the ability to reduce. The majority of the proposed Project's ROG emission exceedances are from use of consumer products that the City cannot control emissions of; and therefore, cannot feasibly be reduced below the SCAQMD thresholds. As a result, NO_x and ROG emissions from implementation of the proposed Project would be cumulatively considerable, and cumulative air quality impacts would be significant and unavoidable.

5.1.8 EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS, OR POLICIES

Plans, Program and Policies

The following Plans, Programs, and Policies (PPP) related to air quality are incorporated into the proposed Project and would reduce impacts related to air quality. These actions will be included in the proposed Project's mitigation monitoring and reporting program (MMRP):

PPP AQ-1: Rule 403. The following measures shall be incorporated into construction plans and specifications as implementation of Rule 403:

- All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 mph per SCAQMD guidelines in order to limit fugitive dust emissions.

- The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the proposed Project are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day.
- The contractor shall ensure that traffic speeds on unpaved roads and Project site areas are reduced to 15 miles per hour or less.

PPP AQ-2: Rule 1113. The following measure shall be incorporated into construction plans and specifications as implementation of Rule 1113. The proposed Project shall only use “Low-Volatile Organic Compounds (VOC)” paints (no more than 50 gram/liter of VOC) consistent with SCAQMD Rule 1113.

PPP AQ-3: Rule 445. The following measure shall be incorporated into construction plans and specifications as implementation of Rule 445. Wood burning stoves and fireplaces shall not be included or used in the new development.

PPP AQ-4: CALGreen Building Standards MERV 13 Filters. Indoor air quality within mechanically ventilated buildings shall comply with Section 5.504.5.3 (Filters) of the California Green Building Standards Code Part 11 that requires utilization of at least a Minimum Efficiency Reporting Value (MERV) of 13 air filtration systems. The Code requires MERV 13 filters to be installed prior to occupancy and replaced and/or maintained as directed by the manufacturer.

5.1.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impacts AQ-1, AQ-2, and AQ-3 would be potentially significant.

Upon implementation of regulatory requirements Impact AQ-4 would be less than significant.

5.1.10 MITIGATION MEASURES

GPU FEIR Mitigation Measures

GPU FEIR 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 onsite 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 manufacturers can be found on the South Coast AQMD's website.

Proposed Project Applicability: Mitigation Measure AQ-1 is applicable to the proposed Project and an Air Quality Assessment has been completed and provided in Appendix B.

GPU FEIR 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:

- 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.

Proposed Project Applicability: Mitigation Measure AQ-2 is applicable to the proposed Project and an Air

Quality Assessment has been completed and provided in Appendix B.

GPU FEIR MM AQ-3: Prior to discretionary approval by the City of Santa Ana, project applicants for new industrial or warehousing development projects that 1) have the potential to generate 100 or more diesel truck trips per day or have 40 or more trucks with operating diesel-powered transport refrigeration units, and 2) are within 1,000 feet of a sensitive land use (e.g., residential, schools, hospitals, or nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use, shall submit a health risk assessment (HRA) to the City of Santa Ana for review and approval. The HRA shall be prepared in accordance with policies and procedures of the State Office of Environmental Health Hazard Assessment and the South Coast Air Quality Management District and shall include all applicable stationary and mobile/area source emissions generated by the proposed project at the project site. If the HRA shows that the incremental cancer risk and/or noncancer hazard index exceed the respective thresholds, as established by the South Coast AQMD at the time a project is considered (i.e., 10 in one million cancer risk and 1 hazard index), the project applicant will be required to identify and demonstrate that best available control technologies for toxics (T-BACTs), including appropriate enforcement mechanisms, are capable of reducing potential cancer and noncancer risks to an acceptable level. T-BACTs may include, but are not limited to, restricting idling onsite, electrifying warehousing docks to reduce diesel particulate matter, or requiring use of newer equipment and/or vehicles. T BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan.

Proposed Project Applicability: Mitigation Measure AQ-3 is not applicable to the proposed Project because it does not include any new industrial or warehousing development.

GPU FEIR MM AQ-4: Prior to discretionary approval by the City of Santa Ana, if it is determined that a development project has the potential to emit nuisance odors beyond the property line, an odor management plan shall be prepared by the project applicant and submitted to the City of Santa Ana for review and approval. Facilities that have the potential to generate nuisance odors include, but are not limited to:

- Wastewater treatment plants
- Composting, green waste, or recycling facilities
- Fiberglass manufacturing facilities
- Painting/coating operations
- Large-capacity coffee roasters
- Food-processing facilities

The odor management plan shall demonstrate compliance with the South Coast Air Quality Management District's Rule 402 for nuisance odors. The Odor Management Plan shall identify the best available control technologies for toxics (T-BACTs) that will be utilized to reduce potential odors to acceptable levels, including appropriate enforcement mechanisms. T-BACTs may include but are not limited to scrubbers (i.e., air pollution control devices) at the industrial facility. T-BACTs identified in the odor management plan shall be identified as mitigation measures in the environmental document prepared for the development project and/or incorporated into the project's site plan.

Proposed Project Applicability: Mitigation Measure AQ-4 is not applicable to the proposed Project because it does not include any new uses that would generate nuisance odors.

Proposed Specific Plan Project Mitigation Measures

Mitigation Measure AQ-1: Construction Exhaust and Dust Control. Prior to issuance of Phase 1, Phase 2, and Phase 3 grading permits, the Project Applicant shall prepare and submit documentation to the City of Santa Ana Building and Safety Division that demonstrates the following:

- Require fugitive-dust control measures that exceed SCAQMD Rule 403 requirements:
 - Apply water at least three times daily 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.
 - Limit onsite 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.
- All off-road diesel-powered construction equipment greater than 50 horsepower meets California Air Resources Board Tier 4 Final off-road emissions standards. Requirements for Tier 4 Final equipment shall be included in applicable bid documents and successful contractor(s) must demonstrate the ability to supply such equipment. A copy of each equipment's Best Available Control Technology (BACT) documentation (certified tier specification or model year specification), and CARB or SCAQMD operating permit (if applicable) shall be provided to the City at the time of mobilization of each applicable unit of equipment.
- Construction equipment shall be properly maintained according to manufacturer specifications. All equipment maintenance records and data sheets, including design specifications and emission control tier classifications shall be kept onsite and furnished to the lead agency or other regulators upon request.
- All construction equipment and delivery vehicles shall be turned off when not in use, or limit onsite idling for no more than 5 minutes in any 1 hour.
- Onsite electrical hook ups to a power grid shall be provided for electric construction tools including saws, drills, and compressors, where feasible, to reduce the need for diesel powered electric generators. Construction contracts shall require all off-road equipment with a power rating below 19 kilowatts (25 horsepower) (e.g., plate compactors, pressure washers, etc.) used during project construction be battery powered.
- Prepare a construction traffic control plan detailing the locations of equipment staging areas, material stockpiles, proposed road closures, and hours of construction operations, and designing the plan to minimize impacts to roads frequented by passenger cars, pedestrians, bicyclists, and other non-truck traffic.
- Provide information on transit and ridesharing programs and services to construction employees.

Mitigation Measure AQ-2: Low VOC Paint (Construction). Construction plans, specifications, and permitting shall require that during construction, the Project shall use "Super-Compliant" low VOC paints which have been reformulated to exceed the regulatory VOC limits (i.e., have a lower VOC content than what is required) put forth by SCAQMD's Rule 1113 for all architectural coatings. Super-Compliant low VOC paints shall be no more than 10g/L of VOC. Prior to issuance of building permits, the City of Santa Ana shall confirm that plans include the following specifications:

- All architectural coatings will be Super-Compliant low VOC paints.
- Recycle leftover paint. Take any leftover paint to a household hazardous waste center; do not mix leftover water-based and oil-based paints.

- Keep lids closed on all paint containers when not in use to prevent VOC emissions and excessive odors.
- For water-based paints, clean up with water only. Whenever possible, do not rinse the cleanup water down the drain or pour it directly into the ground or the storm drain. Set aside the can of cleanup water and take it to the hazardous waste center (www.cleanup.org).
- Use compliant low-VOC cleaning solvents to clean paint application equipment.
- Keep all paint- and solvent-laden rags in sealed containers to prevent VOC emissions.
- Contractors shall construct/build with materials that do not require painting and use pre-painted construction materials to the extent practicable.
- Use high-pressure/low-volume paint applicators with a minimum transfer efficiency of at least 50 percent or other application techniques with equivalent or higher transfer efficiency.

Mitigation Measure AQ-3: Vehicle Trip Reduction. Develop a qualifying Commute Trip Reduction (CTR)/Transportation Demand Management (TDM) plan to reduce mobile GHG emissions for all uses. The TDM plan shall be approved by the City of Santa Ana prior to the issuance of building permits. The TDM plan shall discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking. The following measures shall be incorporated into the TDM plan.

TDM Requirements for Non-Residential Uses:

- The Project Applicant shall consult with the local transit service provider to maintain and identify opportunities to maximize transit. Evidence of compliance with this requirement may include correspondence from the local transit provider(s) regarding the potential need for installing bus shelters or bus stops at the site.
- The portion of the TDM plan for non-residential uses shall include, but not be limited to the following potential measures: ride-matching assistance, preferential carpool parking, flexible work schedules for carpools, half-time transportation coordinators, providing a web site or message board for coordinating rides, designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles, and including bicycle end of trip facilities (such as bicycle parking and changing/shower facilities). This list may be updated as new methods become available. Verification of this measure shall occur prior to building permit issuance for the commercial uses.

TDM Requirements for Residential Units:

- Rental Units. Upon a residential dwelling being rented or offered for rent, the Project Applicant shall notify and offer to the tenant or prospective tenant, materials describing public transit, ridesharing, and nonmotorized commuting opportunities in the vicinity of the development. The materials shall be approved by the City of Santa Ana. The materials shall be provided no later than the time the rental agreement is executed. This information shall be submitted to the City of Santa Ana Planning Division for review and approval, prior to the issuance of the first certificate of occupancy.

Mitigation Measure AQ-4: Prohibition of Fireplaces. The installation of wood-burning and natural gas devices shall be prohibited inside residential dwelling units. The purpose of this measure is to limit emissions of ROG, NO_x, and particulate matter emissions from wood-burning and natural gas devices used for primary heat, supplemental heat, or ambiance. This prohibition shall be noted on the deed and/or lease agreements for tenants to obey.

Mitigation Measure AQ-5: Electric Landscape Equipment. Prior to the issuance of occupancy permits, the Planning Division shall confirm that the proposed Project's Codes Covenants and Restrictions (CC&Rs) and/or tenant lease agreements include contractual language that all landscaping equipment used on site shall be

100 percent electrically powered. 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.

MM AQ-6: Low VOC Paint (Operations). The Project Applicant shall require by contract specifications for commercial development to use interior and exterior architectural coatings (paint and primer including parking lot paint) products that have a volatile organic compound rating of 10 grams per liter or less. Contract specifications shall be reviewed and approved by the City of Santa Ana prior to the issuance of occupancy permits. This measure shall be made a condition of approval for continued upkeep of the property.

5.1.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Emissions from operation of the proposed Project would exceed SCAQMD's thresholds for NO_x and ROG after implementation of existing regulations and mitigation. The majority of NO_x emissions are from vehicles and the majority of ROG emissions would be derived from consumer products, neither of which the Project applicant nor the City have the ability to reduce emissions of. Therefore, both NO_x and ROG emissions from implementation of the proposed Project would result in both a project level and a cumulatively considerable significant and unavoidable impact. Hence, Impacts AQ-1 and AQ-2 would be significant and unavoidable after mitigation.

Impact AQ-3 would be less than significant with implementation of mitigation that requires CARB Tier 4 Final off-road construction equipment and construction exhaust and dust control, as detailed previously. Thus, impacts related to exposure of sensitive receptors to substantial pollutant concentrations would be less than significant with implementation of existing regulations and incorporation of mitigation.

REFERENCES

Air Quality Assessment. June 2023. Prepared by Kimley-Horn (Appendix B)

City of Santa Ana General Plan. Accessed: <https://www.santa-ana.org/general-plan-documents/>

City of Santa Ana General Plan Update Final Recirculated Draft Program Environmental Impact Report - October 2021. Accessed: <https://www.santa-ana.org/general-plan-environmental-documents/>

Health Risk Assessment. May 2023. Prepared by Kimley-Horn (Appendix C)

5.2 Cultural Resources

5.2.1 INTRODUCTION

This section describes the existing setting of the Project site and surrounding area related to historic and archaeological resources. This section also addresses potential environmental effects of the proposed Project related to cultural resources, which include historic and archaeological resources. Information within this section is based on the following:

- *City of Santa Ana General Plan Update*
- *City of Santa Ana General Plan Update FEIR*
- *City of Santa Ana Municipal Code*
- *Historic Resource Assessment (Appendix D)*
- *Archaeological Resources Assessment (Appendix E)*

In accordance with Public Resources Code Section 15120(d), the City has in its possession confidential information and communications that disclose the location of archaeological sites and sacred lands. While the City used that information to prepare its analysis in this section, the information is not attached as an appendix to this EIR. The documents are maintained separately in the City's files.

Definitions

- **Archaeological resources** include any material remains of human life or activities that are at least 100 years of age, and that are of scientific interest. A unique or significant archaeological resource is an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it (1) contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information; (2) has a special and particular quality, such as being the oldest of its type or the best available example of its type; and (3) is directly associated with a scientifically recognized important prehistoric or historic event or person.
- **Cultural resources** are defined as buildings, sites, structures, or objects, each of which may have historic, architectural, archaeological, cultural, or scientific importance, according to CEQA.
- **Historic building or site** is one that is noteworthy for its significance in local, state, or national history or culture, its architecture or design, or its works of art, memorabilia, or artifacts.
- **Historic context** refers to the broad patterns of historical development in a community or its region that is represented by cultural resources. A historic context statement is organized by themes such as economic, residential, and commercial development.
- **Historic integrity** is defined as "the ability of a property to convey its significance."
- **Historical resources** are defined as "a resource listed or eligible for listing on the California Register of Historical Resources" (CRHR) (Public Resources Code, Section 5024.1; 14 CCR 15064.5). Under CEQA Guidelines Section 15064.5(a), the term "historical resources" includes the following:
 - (1) A resource listed in or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Public Resources Code, Section 5024.1).

- (2) A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, will be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- (3) 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 on the California Register of Historical Resources (Public Resources Code Section 5024.1) including the following:
 - (A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
 - (B) Is associated with the lives of persons important in California's past;
 - (C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
 - (D) Has yielded, or may be likely to yield, information important in prehistory or history.
- (4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to Section 5020.1(k) of the Public Resources Code), or identified in a historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1.

5.2.2 REGULATORY SETTING

National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA) established the National Register of Historic Places (National Register), which is the official register of designated historic places. The National Register is administered by the National Park Service, and includes listings of buildings, structures, sites, objects, and districts that possess historical, architectural, engineering, archaeological, or cultural significance at the national, state, or local level.

To be eligible for the National Register, a resource must be significant under one or more of the following criteria per 36 Code of Federal Regulations Part 60:

- A. Resources that are associated with events that have made a significant contribution to the broad patterns of our history;
- B. Resources that are associated with the lives of persons significant in our past;

- C. Resources that embody 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. Resources that have yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting one or more of the aforementioned criteria, an eligible resource must also possess historic “integrity,” which is “the ability of a property to convey its significance.” The National Register criteria recognize seven qualities that define integrity: location, design, setting, materials, workmanship, feeling, and association.

Structures, sites, buildings, districts, and objects over 50 years of age can be listed 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.

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

California Register of Historical Resources

The California Register of Historical Resources (CRHR or California Register) is an inventory of significant architectural, archeological, and historical resources in the state of California. Resources can be listed on the California Register through a number of methods. State Historical Landmarks and National Register listed properties are automatically listed on the California Register. Properties can also be nominated to the California Register by local governments, private organizations, or citizens. The evaluative criteria used by the California Register for determining eligibility are closely based on those developed by the National Park Service for the National Register. In order for a property to be eligible for listing on the California Register, it must be found significant under one or more of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
2. Is associated with the lives of persons important in California’s past;
3. 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;
4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, resources eligible for the National Register of Historic Places are automatically listed on the California Register of Historical Resources.

California Health and Safety Code, Section 7050.5

This code requires that if human remains are discovered on a project site, disturbance of the site shall halt and remain halted until the coroner has conducted an investigation into 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 recognizes or has reason to believe the human remains are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

City of Santa Ana General Plan

The City's General Plan Update (GPU) includes policies related to historic and archaeological resources in the Historic Preservation and Land Use Elements that include the following which are applicable to the proposed Project:

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

Land Use Element

- POLICY LU-3.5** Encourage the preservation and reuse of historical buildings and sites through flexible land use policies.

City of Santa Ana Municipal Code

Section 30-3; Application of State Historical Building Code: Any building or structure designated as having historical or architectural importance by inclusion in the city register of historical properties shall be deemed a "qualified historical building or structure" for purposes of applying the state historical building code, as set forth in Part 2.7 (commencing with Section 18950) of Division 13 of the Health and Safety Code of the state of California and Part 8 of Title 24 of the California Administrative Code.

Section 30-2 et seq.; Criteria for Selection

- (a) Any person or group may request a building, or part thereof, structure, object or site, to be designated to be included on the city register of historical properties (called "register" in this section). The applicant must submit documentation that demonstrates how the nominated building, structure, object or site satisfies the criteria for designation. A building, structure, object, or site may be designated for inclusion on the register if the building, structure, object or site is 50 or more years old and if the commission finds that one or more of the following conditions are met:
- (1) Buildings, structures or objects with distinguishing characteristics of an architectural style or period, that exemplify a particular architectural style or design features; architectural development;
 - (2) Works of notable architects, builders, or designers whose style influenced architectural development;
 - (3) Rare buildings, structures, or objects or original designs;
 - (4) Buildings, structures, objects or sites of historical significance which include places:
 - a. Where important events occurred;
 - b. Associated with famous people, original settlers, renowned organizations and businesses;
 - c. Which were originally present when the city was founded; or

d. That served as important centers for political, social, economic, or cultural activity.

(5) Sites of archaeological importance;

(6) Buildings or structures that were connected with a business or use which was once common but is now rare.

Categorization

The historic resources commission shall, by resolution and at a duly noticed public hearing, place all buildings, structures, objects, or sites on the city register of historical properties in one of the following categories based upon one of the criteria in the following categories:

(1) Landmark category.

- a. The building, structure, object or site is on the national register or appears to be eligible to be placed on the register; or
- b. The building, structure, object or site is on the state register or appears to be eligible to be placed on the register;
- c. The building, structure, object or site has an historical/cultural significance to the city;
- d. The building, structure, object or site has a unique architectural significance.

(2) Key category.

- a. The building, structure, object or site has a distinctive architectural style and quality;
- b. The building, structure, object or site is characteristic of a significant period in the history of the city;
- c. The building, structure, object or site is associated with a significant person or event in the city.

(3) Contributive category.

The building, structure, object or site contributes to the overall character and history of a neighborhood or district and is a good example of period architecture.

5.2.3 ENVIRONMENTAL SETTING

Historic

Orange County contains prehistoric sites dating from 9,000 to 10,000 years ago that show signs of human presence. Sites from 6,000 to 1,000 BC (Milling Stone period) are common in the coastal region of Southern California and at many inland locations. Between 1,000 BC to 650 AD (Intermediate period), orientation of sites shifted toward hunting, maritime subsistence, and acorn processing. The late prehistoric period from 650 AD until European contact in 1769 included the introduction of pottery, triangular arrow points, and cremation practices.

In July of 1769, the valley in which Santa Ana is located was explored by those of European descent during a Franciscan expedition led by Don Gaspar Portola. In 1810, Antonio Yorba and his nephew, Juan Peralta, received a grant from the Spanish governor of California for all the land extending from the foothills of Santa Ana Canyon to the ocean. Santa Ana appeared as a township of Los Angeles County in the 1860 and 1870 censuses. In 1869, William H. Spurgeon purchased 70 acres from the Yorba heirs and drew up a town

plan, and the community was officially laid out later that year.¹ With the establishment of several ranches in the valley, the area soon became an agricultural center. Santa Ana evolved as a commercial center due to its central location in the valley and became a marketplace for crops produced in the surrounding region that is now Orange County. Agriculture continued to be the major industry throughout Orange County and Santa Ana until the second half of the twentieth century. Rail travel played a major factor in the development and expansion of Santa Ana in the nineteenth century, and in 1886, the City of Santa Ana was incorporated. Since World War II, Santa Ana has become the financial and governmental center of Orange County.

Through the 1950s and 1960s, the Project site was used for agricultural purposes. In 1972, the site began use for commercial uses. The Historic Resources Assessment (Appendix D) describes that by 1972, two buildings had been constructed, along with a large parking lot on the southeast portion of the site. By 1976, the southern portion of the site was developed with commercial buildings; and by 1977, 10 buildings had been constructed on the site along with surface parking lots. Since the original commercial development of the site various modifications have occurred.

The Historic Resource Assessment that was prepared for the proposed Project (Appendix D) describes that the site is currently developed with 16 buildings that are surrounded by surface parking areas and ornamental landscaping. The existing onsite buildings were constructed between 1972 and 2004, as shown on Table 5.2-1. As shown, Buildings A, B, C, D, E, F, and G were constructed more than 45 years ago.

Table 5.2-1: Existing Onsite Buildings

	Date of Construction	Address (Current and Historic)	Current Tenant(s)
Building A	1972	3900 South Bristol Street 1307 West Sunflower Avenue 1313 West Sunflower Avenue	Hobby Lobby, T.J. Maxx, Ross Dress for Less, World Market (1313), Red Robin (1307)
Building B	1972	3610 South Bristol Street 3640-3646 South Bristol Street (even numbers) 3650 South Bristol Street 3664-3674 South Bristol Street (even numbers) 3692-3698 South Bristol Street (even numbers) 3732-3752 South Bristol Street 3719-3785 South Plaza Drive	Vons
Building C	1974	3701 South Plaza Drive	Esporta Fitness
Building D	1973	3620 South Bristol Street	Variety of medical and dental offices
Building E	1972	3600-3600 ½ South Bristol Street	Chase Bank
Building F	1972	3606-3608 South Bristol Street	Wang Cho
Building G	1972	3730 South Bristol Street	Bank of America
Building H	2003	3638 South Bristol Street	Sleep Number
Building I	2001	3710 South Bristol Street	Jack in the Box
Building J	1984	1500 West MacArthur Street 3621 South Plaza Drive 3641 South Plaza Drive	Boiling Crab
Building K	1979	3814-3816 South Bristol Street	Plato's Closet, Aloha Hawaiian BBQ, Barbershop, Hair Salon
Building L	2004	3810 South Bristol Street	McDonald's
Building M	1978	3820 South Bristol Street	Robbins Brothers

¹ "Santa Ana: History," City-data.com

	Date of Construction	Address (Current and Historic)	Current Tenant(s)
Building N	1985	3930 South Bristol Street	Dentist, optometrist, salons, restaurants
Building O	1985	3940 South Bristol Street	Sankai Restaurant
Building P	1985	3950 South Bristol Street	Euro Caffè

Source: Historic Resources Assessment, Appendix D

Of the 16 buildings, 7 buildings were constructed more than 45 years ago and have been substantially altered since their original construction. The Historic Resource Assessment details that the Project site is not adjacent to any historic structures. Areas surrounding the site consist of modern multi-family residences and commercial buildings, including South Coast Plaza to the south.

Archaeologic

The chronology of coastal Southern California, which is inclusive of the Project area, is typically divided into three general time periods: the Early Holocene (11,000 to 8,000 Before Present [B.P.]), the Middle Holocene (8,000 to 4,000 B.P.), and the Late Holocene (4,000 B.P. to A.D. 1769). Sites dating from 9,000 to 10,000 years ago show evidence of human presence within the Orange County region. A review of geologic mapping as detailed in the Archaeological Resources Assessment (Appendix E) indicates that the Project area is underlain by young Quaternary deposits, dating from the Late Holocene to the Late Pleistocene (Qya). The Late Holocene is contemporaneous with the duration of known human occupation of the area.

A total of 16 cultural resources studies have been performed within a 0.5-mile radius of the Project site. Of these previous studies, one overlaps a small portion of the Project site. The records search conducted for the proposed Project identified one previously recorded prehistoric archaeological resource and three previously recorded historic-period archaeological isolates within 0.5-mile of the Project site. No archaeological or historic resources have been previously recorded within the Project site, as shown in Table 5.2-2.

Table 5.2-2: Previously Recorded Archaeological Resources

Primary No.	Permanent Trinomial	Description	Date Recorded	Eligibility	Location
P-30-001515	CA-ORA-001515	Prehistoric site - shell scatter	1999	Unknown	0.5 mile southeast
P-30-100342	-	Historic-period isolate	2002	Ineligible	0.4 mile northwest
P-30-100343	-	Historic-period isolate	2002	Ineligible	0.4 mile northwest
P-30-100344	-	Historic-period isolate	2002	Ineligible	0.4 mile northwest

Source: Archaeological Resources Assessment, Appendix E

5.2.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

- CUL-1 Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5.
- CUL-2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.
- CUL-3 Disturb any human remains, including those interred outside of formal cemeteries.

Historic Resources Thresholds

Historic resources are usually 50 years old or older and must meet at least one of the criteria for listing in the California Register (such as association with historical events, important people, or architectural significance), in addition to maintaining a sufficient level of physical integrity (CEQA Guidelines Section 15064.5[a][3]). Additionally, CEQA Guidelines Section 15064.5(b), states that a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that would have a significant effect on the environment. A substantial adverse change in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired. 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 resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; 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 Public Resources Code or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes 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 California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

5.2.5 METHODOLOGY

Archaeological and Historic Records Search. An archaeological and historical records search was conducted at the South Central Coastal Information Center (SCCIC) of the California Historical Resources Inventory System (CHRIS), located at California State University, Fullerton on September 20, 2022. This search included the Project site with an additional 0.5-mile buffer. In addition, archival research was done to obtain historical development information. This archival research included review of the National Register, the California Register, the Statewide Historical Resources Inventory, the City of Santa Ana's inventory of historic properties, data on land ownership, historical maps, historical aerial photographs from 1952 to present, construction histories, and City Directories.

Archaeological and Historic Field Surveys. A pedestrian survey was conducted at the Project site on October 6, 2022, consistent with the requirements set forth in Santa Ana GPU FEIR Mitigation Measure CUL-4. As the majority of the Project site is developed with structures, parking lots, and sidewalks, areas with visible ground surface totaling approximately 3 acres were subject to opportunistic survey.

The historic (built-environment) survey consisted of inspection of the exterior of buildings A, B, C, D, E, F, and G as they were constructed over 45 years ago. The survey assessed the buildings' current conditions and documented evidence of renovations or alterations. Photographs were taken of each of the buildings as part of the documentation process. A description of each structure's style, design and method of construction was recorded on California Department of Parks and Recreation (DPR) Series 523 forms.

Subsurface Archaeological Sensitivity Assessment. A desktop analysis was conducted to assess the potential for subsurface archaeological resources within the Project area. Sources reviewed as part of the

desktop analysis include geologic maps and soil maps, the SCCIC records search results, the geotechnical report for the proposed Project, and the historic map and aerial review.

5.2.6 ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR addressed impacts related to cultural resources in Chapter 5.4. The GPU FEIR described that certain development pursuant to the GPU may not be able to avoid impacts to historical resources. However, the GPU FEIR described that the South Bristol Street focus area has a low potential to contain built environment historical resources. Mitigation Measures CUL-1 and CUL-2 were included to reduce most impacts to a less than significant level, and Mitigation Measure CUL-3 would reduce impacts to the extent feasible; however, GPU impacts to historic resources would be significant and unavoidable.

The GPU FEIR describes that development involving ground disturbance has the potential to impact known and unknown archaeological resources, and details that eight archaeological resources have been recorded in the City. The GPU FEIR determined that there is a moderate likelihood that intact subsurface archaeological resources would be encountered during redevelopment and included Mitigation Measures CUL-4 through CUL-7 to reduce potential individual and cumulative impacts associated with future development and redevelopment. Mitigation Measure CUL-4 requires an archaeological resources assessment be conducted for future development projects to identify any known archaeological resources and sensitivity of a site. Mitigation Measures 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. The GPU FEIR determined that upon compliance with Mitigation Measures CUL-4 through CUL-7, individual and cumulative impacts to archaeological resources would be reduced to less than significant levels. The GPU FEIR determined that the likelihood that human remains may be discovered during clearing and grading activities is considered extremely low. In the unlikely event human remains are uncovered, impacts would be less than significant upon compliance with California and Safety Code Section 7050.5.

Proposed Specific Plan Project

IMPACT CUL-1: THE PROJECT WOULD NOT CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF A HISTORICAL RESOURCE PURSUANT TO CEQA GUIDELINES SECTION 15064.5.

No Impact. According to the *State CEQA Guidelines*, a historical resource is defined as something that meets one or more of the following criteria:

- 1) Listed in, or determined eligible for listing in, the California Register of Historical Resources;
- 2) Listed in a local register of historical resources as defined in Public Resources Code (PRC) Section 5020.1(k);
- 3) Identified as significant in a historical resources survey meeting the requirements of PRC Section 5024.1(g); or
- 4) Determined to be a historical resource by the project's Lead Agency.

PRC Section 5024.1 directs evaluation of historical resources to determine their eligibility for listing on the CRHR. The criteria for listing resources on the CRHR were expressly developed to be in accordance with previously established criteria developed for listing on the NRHP, enumerated above, and require similar protection to what NHPA Section 106 mandates for historic properties. According to PRC Section 5024.1(c)(1-4), a resource is considered historically significant if it meets at least one of the following criteria:

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

As described previously, the Project site is currently developed with 16 commercial buildings, seven of which were constructed more than 45 years ago. As such, pursuant to GPU FEIR Mitigation Measure CUL-1, a historical resource assessment was prepared for Buildings A, B, C, D, E, F, and G.

Building A: 3900 South Bristol Street, 1307 and 1313 Sunflower Avenue

According to the Historic Resource Assessment, based on aerial photographs, Building A was the first structure constructed on the Project site in 1972 for use by the JCPenney Company. Since circa 1980, Building A has been in use as a multi-retail space for a variety of retail chains and restaurants. The current stores located in Building A and Building A itself do not retain a significant role in history related to retail or the expansion of the City of Santa Ana. Therefore, the Historical Resource Assessment determined that Building A does not appear to meet the eligibility requirements under National Register Criterion A or California Register Criterion 1.

Building A is not identified with historic individuals or events of national, state, or local history and is not associated with significant individual owners or occupants. Therefore, the Historical Resource Assessment determined that Building A does not appear to meet the eligibility requirements under National Register Criterion B or California Register Criterion 2.

Building A is not related to any historically significant architects, construction companies, or developers. It does not have a distinctive design or expression of any style, and currently exhibits a generic post-modern commercial appearance. While the building maintains some original character-defining features, these features are not distinguishing or unique. Therefore, the Historical Resource Assessment determined that Building A does not appear to meet the eligibility requirements under National Register Criterion C or California Register Criterion 3.

Building A does not appear to yield significant information that would expand current knowledge or theories of design, methods of construction, operation, or other information that is not already known. Therefore, the Historical Resource Assessment determined that Building A does not appear to meet the eligibility requirements under National Register Criterion D or California Register Criterion 4.

In addition, Building A does not meet any of the requirements set forth by the City of Santa Ana to be considered a historic resource. As such, Building A is not eligible for listing as a historic resource by the City of Santa, the state, or nationally (Appendix D).

Building B: 3610 South Bristol Street, 3640 – 3646 South Bristol Street (even numbers), 3650 South Bristol Street, 3664 – 3674 South Bristol Street (even numbers), 3692 – 3698 South Bristol Street (even numbers), 3732 – 3752 South Bristol Street (even numbers), and 3719 – 3785 South Plaza Drive

The Historic Resource Assessment (Appendix D) describes that Building B was constructed in 1973 by the Southern California branch of Winmar Company. The stores located in Building B and Building B itself do not retain a significant role in history related to retail or the expansion of the City of Santa Ana. In addition, Building B is similar to many other strip malls in the Southern California region. Therefore, the Historical Resource Assessment determined that Building B does not appear to meet the eligibility requirements under National Register Criterion A or California Register Criterion 1.

Building B is not identified with historic individuals or events of national, state, or local history and is not associated with significant individual owners or occupants. Therefore, the Historical Resource Assessment determined that Building B does not appear to meet the eligibility requirements under National Register Criterion B or California Register Criterion 2.

Building B is not related to any historically significant architects, construction companies, or developers. While Building B includes features of the Contemporary Spanish Colonial Revival style, including a horizontal massing, a parapet roof, and decorative detailing that includes red clay tile, it is not a distinctive or unique design, nor is it an outstanding expression of the style. In addition, this style is similar to many other strip malls in Southern California. Also, significant alterations in 2011 and 2014 have changed the original layout and formation of the building, and the building no longer retains integrity from the date of its original construction. Therefore, the Historical Resource Assessment determined that Building B does not appear to meet the eligibility requirements under National Register Criterion C or California Register Criterion 3.

Building B does not appear to yield significant information that would expand current knowledge or theories of design, methods of construction, operation, or other information that is not already known. Therefore, the Historical Resource Assessment determined that Building B does not appear to meet the eligibility requirements under National Register Criterion D or California Register Criterion 4.

In addition, Building B does not meet any of the requirements set forth by the City of Santa Ana to be considered a historic resource. As such, Building B is not eligible for listing as a historic resource by the City of Santa, the state, or nationally (Appendix D).

Building C: 3701 South Plaza Drive

Building C was constructed in 1974 and designed as a multi-screen movie theater for the Edwards Cinemas Circuit. Edwards Cinemas was a historic independent theater company, originally founded in California in 1930. While the Edwards Cinemas company is potentially significant for the early development of the theater industry in the United States and its expansion in Southern California and Orange County specifically, Building C was sold by the company circa 2000 and is no longer in use as a theater. More importantly, Building C is not a significant example of an Edwards Cinemas theater. Therefore, the Historical Resource Assessment determined that Building C does not appear to meet the eligibility requirements under National Register Criterion A or California Register Criterion 1. The building is currently a fitness center.

While James Edwards, Sr. is a potentially significant figure in the development of the multi-screen movie theater in Southern California, the Historic Resource Assessment was unable to uncover a specific connection between him and Building C. As such, Building C is not identified with historic individuals or events of national, state, or local history and is not associated with significant individual owners or occupants. Therefore, the Historical Resource Assessment determined that Building C does not appear to meet the eligibility requirements under National Register Criterion B or California Register Criterion 2.

Building C is not related to any historically significant architects, construction companies, or developers and the structure was expanded in 2000. While Building B includes features of the Mission Revival style, including smooth stucco walls, a parapet roof, limited fenestration, and decorative detailing that includes red clay tile, it is not a distinctive or unique design, nor is it an outstanding expression of the style. However, Building C is a utilitarian and commercial example of the Mission Revival style. There are numerous other and better examples of the Mission Revival style throughout Southern California and the western United States. Examples in Santa Ana include the Bowers Museum at 2002 North Main Street (1936), Santa Ana Fire Station No. 1 at 1322 North Sycamore Street (1929), and the U.S. Post Office (Spurgeon Station) located at 615 North Bush Street (1931). Additionally, significant alterations in 2000 have changed the original layout and formation of the building, and the building no longer retains integrity from the date of its original

construction. Therefore, the Historical Resource Assessment determined that Building C does not appear to meet the eligibility requirements under National Register Criterion C or California Register Criterion 3.

Building C does not appear to yield significant information that would expand current knowledge or theories of design, methods of construction, operation, or other information that is not already known. Therefore, the Historical Resource Assessment determined that Building C does not appear to meet the eligibility requirements under National Register Criterion D or California Register Criterion 4.

In addition, Building C does not meet any of the requirements set forth by the City of Santa Ana to be considered a historic resource. As such, Building C is not eligible for listing as a historic resource by the City of Santa, the state, or nationally (Appendix D).

Building D: 3620 South Bristol Street

Building D was originally constructed in July 1973 as a three-story multi-tenant medical and dental office building. It remains in use as a medical and dental office building. While numerous tenants located at Building D have provided services to the residents of Santa Ana for almost 50 years, there are many similar medical and dental practices throughout Orange County and the broader United States. The building has never functioned as a research facility, and no significant medical discoveries or breakthroughs have occurred at the building. Tenants have consistently been small businesses that have not played a prominent role in the broader medical and dental communities of Santa Ana and Orange County. Research did not identify historical events occurring at the subject property that would rise to the level of significance required for national or state listing. Therefore, the Historical Resource Assessment determined that Building D does not appear to meet the eligibility requirements under National Register Criterion A or California Register Criterion 1.

Building D is not identified with historic individuals or events of national, state, or local history and is not associated with significant individual owners or occupants. Therefore, the Historical Resource Assessment determined that Building B does not appear to meet the eligibility requirements under National Register Criterion D or California Register Criterion 2.

Building D is not related to any historically significant architects, construction companies, or developers. While Building B includes features of the Mid-Century Spanish Colonial Revival style, including a parapet roof, interior courtyard, and red clay tile, it is not an outstanding expression of the style. While Building D is a unique commercial rendering of the style that retains its original character-defining features, it does not possess a high artistic or aesthetic value. There are numerous other and better examples of the Contemporary Spanish Colonial Revival style throughout Southern California, as it was widespread during the suburban development of the area. Some of these in Santa Ana include the St. Anne Catholic Church and associated buildings at 1344 South Main Street in Santa Ana (1941-1945); the Orange County Fire Authority Station No. 74 at 1439 South Broadway (1955); and the Santa Ana Regional Transportation Center (1985). Therefore, the Historical Resource Assessment determined that Building D does not appear to meet the eligibility requirements under National Register Criterion C or California Register Criterion 3.

Building D does not appear to yield significant information that would expand current knowledge or theories of design, methods of construction, operation, or other information that is not already known. Therefore, the Historical Resource Assessment determined that Building D does not appear to meet the eligibility requirements under National Register Criterion D or California Register Criterion 4.

In addition, Building D does not meet any of the requirements set forth by the City of Santa Ana to be considered a historic resource. As such, Building D is not eligible for listing as a historic resource by the City of Santa, the State, or nationally.

Building E: 3600–3600 1/2 South Bristol Street (Chase Bank building)

Building E was constructed in 1972 as a branch of Marina Federal Savings & Loan. The Historic Resource Assessment (Appendix D) describes that Building E does not retain a significant place in the broad patterns of financial and development history within Southern California, and the building property is not particularly notable for any of the financial institutions that have occupied the building. Therefore, the Historical Resource Assessment determined that Building E does not appear to meet the eligibility requirements under National Register Criterion A or California Register Criterion 1.

Building E is not identified with historic individuals or events of national, state, or local history and is not associated with significant individual owners or occupants. Therefore, the Historical Resource Assessment determined that Building E does not appear to meet the eligibility requirements under National Register Criterion B or California Register Criterion 2.

Building E is not related to any historically significant architects, construction companies, or developers. Building E is a good example of the Spanish Colonial Revival style, but it is not a distinctive design or expression of the style. While the building retains its original character-defining features, these features are ubiquitous in most Spanish Colonial Revival designs and are not distinguishing or unique characteristics. The structure was not conceived as a showcase building for the company or the architectural style but rather one of numerous branch offices in Orange County. Therefore, the Historical Resource Assessment determined that Building E does not appear to meet the eligibility requirements under National Register Criterion C or California Register Criterion 3.

Building E does not appear to yield significant information that would expand current knowledge or theories of design, methods of construction, operation, or other information that is not already known. Therefore, the Historical Resource Assessment determined that Building E does not appear to meet the eligibility requirements under National Register Criterion D or California Register Criterion 4.

In addition, Building E does not meet any of the requirements set forth by the City of Santa Ana to be considered a historic resource. As such, Building E is not eligible for listing as a historic resource by the City of Santa Ana, the state, or nationally.

Building F: 3606–3608 South Bristol

Building F was constructed in 1974 as a restaurant space and remains in use as a restaurant. The building represents a typical restaurant space in a suburban community such as Santa Ana and has been occupied by both locally based companies and chain franchises. While the various restaurants that have been located at Building F have provided many dining opportunities for the residents of Santa Ana, they have played no larger role in the history of the community. Building F is not a significant franchise in the company history of these chain restaurants. Therefore, the Historical Resource Assessment determined that Building F does not appear to meet the eligibility requirements under National Register Criterion A or California Register Criterion 1.

Building F is not identified with historic individuals or events of national, state, or local history and is not associated with significant individual owners or occupants. Therefore, the Historical Resource Assessment determined that Building F does not appear to meet the eligibility requirements under National Register Criterion B or California Register Criterion 2.

Building F is not related to any historically significant architects, construction companies, or developers. It does not possess high artistic or aesthetic value nor is it a unique method of construction. Further, the building has had multiple stylistic modifications since its original construction and extensive renovations, including the addition of a patio and significant interior renovations, which occurred in 1989, 2005, 2012, and 2019 have resulted in the loss of integrity of the original structure. Therefore, the Historical Resource Assessment

determined that Building F does not appear to meet the eligibility requirements under National Register Criterion C or California Register Criterion 3.

Building F does not appear to yield significant information that would expand current knowledge or theories of design, methods of construction, operation, or other information that is not already known. Therefore, the Historical Resource Assessment determined that Building F does not appear to meet the eligibility requirements under National Register Criterion D or California Register Criterion 4.

In addition, Building F does not meet any of the requirements set forth by the City of Santa Ana to be considered a historic resource. As such, Building F is not eligible for listing as historic resource by the City of Santa, the state, or nationally.

Building G: 3730 South Bristol Street

Building G was originally constructed in 1972 as a branch of Security Pacific National Bank, which was originally founded as the Farmers and Merchants Bank of Los Angeles. Farmers and Merchants Bank merged with Security First National Bank in 1956 and again merged with Pacific National Bank of San Francisco in 1961 to become Security Pacific National Bank. While the bank retains a significant place in the broad patterns of financial and development history within Southern California, Building G is not notable in the company's history. At the time of its construction, Building G was one of many branches constructed by the bank that year alone and is not a notable example of the expansion of the company. Therefore, the Historical Resource Assessment determined that Building G does not appear to meet the eligibility requirements under National Register Criterion A or California Register Criterion 1.

Building G is not identified with historic individuals or events of national, state, or local history and is not associated with significant individual owners or occupants. Therefore, the Historical Resource Assessment determined that Building G does not appear to meet the eligibility requirements under National Register Criterion B or California Register Criterion 2.

Building G is not related to any historically significant architects, construction companies, or developers. While Building G includes features of the Mid-Century Spanish Colonial Revival style with Asian influences, including a horizontal massing, a red clay tile roof, and decorative detailing, it is not a distinctive or unique design, nor is it an outstanding expression of the style. In addition, this style is similar to many other bank branches within Southern California. Therefore, the Historical Resource Assessment determined that Building G does not appear to meet the eligibility requirements under National Register Criterion C or California Register Criterion 3.

Building G does not appear to yield significant information that would expand current knowledge or theories of design, methods of construction, operation, or other information that is not already known. Therefore, the Historical Resource Assessment determined that Building G does not appear to meet the eligibility requirements under National Register Criterion D or California Register Criterion 4.

In addition, Building G does not meet any of the requirements set forth by the City of Santa Ana to be considered a historic resource. As such, Building B is not eligible for listing as historic resource by the City of Santa, the state, or nationally.

Therefore, none of the existing buildings onsite meet any of the historic resource criteria and do not meet the definition of a historical resource pursuant to CEQA or the City of Santa Ana. Thus, impacts related to historic resources would not occur. Therefore, Project impacts would be less than those disclosed in the GPU FEIR, which were determined to be significant and unavoidable despite inclusion of mitigation.

IMPACT CUL-2: THE PROJECT WOULD NOT CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF AN ARCHAEOLOGICAL RESOURCE PURSUANT TO CEQA GUIDELINES SECTION 15064.5.

Less than Significant Impact with Mitigation Incorporated. As described previously, the Project site was used for agricultural uses until the early-1970s when commercial buildings were developed on the site. Thus, the site has been previously disturbed from both agricultural uses and development, including ground disturbance to depths for installation of the existing utility infrastructure that serves the site. As required by GPU FEIR Mitigation Measure CUL-4, an Archaeological Resources Assessment Report was prepared for the proposed Project to analyze the potential archaeological sensitivity of the Project site and the potential for Project ground disturbance to result in impacts to archaeological resources.

Based on the SCCIC records search results and archaeological survey of the Project site, no archaeological resources have been identified within or immediately adjacent to the proposed Project site. However, the Archaeological Resources Assessment Report determined that due to the Holocene age of onsite soils, the presence of known archaeological and historical resources within 0.5-mile from the Project site, and the former presence of agricultural-related structures onsite, the Project area is sensitive for prehistoric and historic-period archaeological deposits (ESA, 2023b).

As described in Section 3.0, *Project Description*, construction activities within the Project site include demolition of the existing buildings; removal of the existing infrastructure and landscaping; and grading and excavation to depths of 30 feet below ground surface for construction of subterranean parking areas and installation of infrastructure. As the Project site is sensitive for previously unknown archaeological resources, the Archaeological Resources Assessment Report (Appendix E) determined that GPU FEIR Mitigation Measure CUL-6 would be required to be implemented to require an archaeologist to be retained for monitoring throughout proposed Project ground disturbing activities. In addition, the proposed Project would be required to implement Project-specific Mitigation Measure CR-1, which sets forth requirements should archaeological resources be uncovered during proposed Project activities, and Project-specific Mitigation Measure CR-2, which preparation of a monitoring report after the completion of monitoring activities. With implementation of GPU FEIR Mitigation Measure CUL-6 and Project-specific Mitigation Measures CR-1 and CR-2, impacts would be less than significant. Therefore, impacts related to Project buildout of the site would be consistent with the impact conclusions set forth in the GPU FEIR, which determined that impacts to archaeological resources would be less than significant after implementation of mitigation.

IMPACT CUL-3: THE PROJECT WOULD NOT DISTURB ANY HUMAN REMAINS, INCLUDING THOSE INTERRED OUTSIDE OF FORMAL CEMETERIES.

Less than Significant Impact. The Project site has been extensively disturbed, as described above, and has not been previously used as a cemetery. Thus, impacts related to known human remains are less than significant. However, in the unanticipated event that human remains are found during proposed Project construction activities, compliance with California Health and Safety Code Section 7050.5 would ensure that human remains are treated with dignity and as specified by law, which would reduce the impact to a less than significant level.

As specified by California Health and Safety Code Section 7050.5, if human remains are found on the Project site, the County Coroner's office shall be immediately notified and no further excavation or disturbance of the discovery or any nearby area reasonably suspected to overlie adjacent remains shall occur until the Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code 5097.98. If the Coroner recognizes the remains to be Native American, he or she shall contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC will make a determination as to the Most Likely Descendent. The existing California Health and Safety Code regulations

provide that impacts related to potential disturbance of human remains are less than significant. Therefore, impacts related to Project buildout of the site would be consistent with the impact conclusions set forth in the GPU FEIR, which determined that impacts to human remains would be less than significant.

5.2.7 CUMULATIVE IMPACTS

Historic Resources: The proposed Project's contribution to cumulative impacts to historical resources was analyzed in context with past and reasonably foreseeable future projects in the City of Santa Ana and adjacent areas in Costa Mesa that were similarly influenced by the historical agricultural and then commercial and residential uses in the region. The cumulative impacts are evaluated in light of development projections in the City's GPU and GPU FEIR that evaluates conditions contributing to the cumulative effect and describes that the South Bristol Street Focus Area has a low potential to contain built environment historical resources.

As detailed previously, the record searches and field surveys indicate that there are no structures on the Project site or adjacent properties that would qualify as historic resources, and no impacts related to historic resources would occur. Therefore, implementation of the proposed Project would have no potential to contribute towards a significant cumulative impact to historical sites and/or resources. Thus, cumulative impacts from the proposed Project would be less than significant.

Archaeological Resources: The cumulative study area for archaeological resources includes the Southern California region, which contains the same general prehistoric uses and migration trends as the Project area. The cumulative impacts are evaluated in light of development projections in the City's GPU and GPU FEIR that evaluate conditions contributing to the cumulative effects to archaeological resources. As described previously, there is a possibility that ground-disturbing activities during Project construction may uncover or disturb unknown archaeological resources. However, the proposed Project would implement GPU FEIR Mitigation Measures CUL-6 and Project-specific Mitigation Measures CR-1 and CR-2 that would reduce the potential impact to unknown resources to a less than significant level. The likelihood of uncovering multiple currently unknown resources within the Project site that is sufficient to create a significant cumulative impact is low given the built nature of the Project site and City of Santa Ana and few archaeological resources that have been found in the vicinity to date. With compliance with Project-specific mitigation, cumulatively considerable impacts would be less than significant.

Disturbance of Human Remains: Mandatory compliance with the provisions of California Health and Safety Code Section 7050.5, Public Resources Code Section 5097 et seq., and CEQA Guidelines Section 15064.5 would assure that the Project, in addition to all development projects, treat human remains that may be uncovered during development activities in accordance with prescribed, respectful, and appropriate practices, thereby avoiding significant cumulative impacts.

5.2.8 EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS, OR POLICIES

- California Health and Safety Code Section 7050.5
- Public Resources Code Section 5097.98

5.2.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements, Impact CUL-1 would be less than significant.

Without mitigation, the following impacts would be potentially significant:

- Impact CUL-2: Project construction activities could impact archaeological resources.
- Impact CUL-3: Project construction activities could disturb human remains.

5.2.10 MITIGATION MEASURES

GPU FEIR Mitigation Measures

CUL-1 Identification of Historical Resources and Potential Project Impacts. For structures 45 years or older, a Historical Resources Assessment (HRA) shall be prepared by an architectural historian or historian meeting the Secretary of the Interior's Professional Qualification Standards. The HRA shall include: definition of a study area or area of potential effect, which will encompass the affected property and may include surrounding properties or historic district(s); an intensive level survey of the study area to identify and evaluate under federal, State, and local criteria significance historical resources that might be directly or indirectly affected by the proposed project; and an assessment of project impacts. The HRA shall satisfy federal and state guidelines for the identification, evaluation, and recordation of historical resources. An HRA is not required if an existing historic resources survey and evaluation of the property is available; however, if the existing survey and evaluation is more than five years old, it shall be updated.

Proposed Project Applicability: Mitigation Measure CUL-1 is applicable to the proposed Project and has been completed. The Project's Historic Resource Assessment has been completed and is provided in Appendix D.

CUL-2 Use of the Secretary of the Interior's Standards. The Secretary of the Interior's Standards for the Treatment of Historic Properties shall be used to the maximum extent practicable to ensure that projects involving the relocation, conversion, rehabilitation, or alteration of a historical resource and its setting or related new construction will not impair the significance of the historical resource. Use of the Standards shall be overseen by an architectural historian or historic architect meeting the Secretary of the Interior's Professional Qualification Standards. Evidence of compliance with the Standards shall be provided to the City in the form of a report identifying and photographing character-defining features and spaces and specifying how the proposed treatment of character-defining features and spaces and related construction activities will conform to the Standards. The Qualified Professional shall monitor the construction and provide a report to the City at the conclusion of the project. Use of the Secretary's Standards shall reduce the project impacts on historical resources to less than significant.

Proposed Project Applicability: Mitigation Measure CUL-2 is not applicable to the proposed Project because the Project does not involve relocation, conversion, rehabilitation, or alteration of a historical resource.

CUL-3 Documentation, Education, and Memorialization. If the City determines that significant impacts to historical resources cannot be avoided, the City shall require, at a minimum, that the affected historical resources be thoroughly documented before issuance of any permits and may also require additional public education efforts and/or memorialization of the historical resource. Though demolition or alteration of a historical resource such that its significance is materially impaired cannot be mitigated to a less than significant level, recordation of the resource will reduce significant adverse impacts to historical resources to the maximum extent feasible. Such recordation should be prepared under the supervision of an architectural historian, historian, or historic architect meeting the Secretary of the Interior's Professional Qualification Standards and should take the form of Historic American Buildings Survey (HABS) documentation. At a minimum, this recordation should include an architectural and historical narrative; archival photographic documentation; and

supplementary information, such as building plans and elevations and/or historic photographs. The documentation package should be reproduced on archival paper and should be made available to researchers and the public through accession by appropriate institutions such as the Santa Ana Library History Room, the South Central Coastal Information Center at California State University, Fullerton, and/or the HABS collection housed in the Library of Congress. Depending on the significance of the adversely affected historical resource, the City, at its discretion, may also require public education about the historical resource in the form of an exhibit, web page, brochure, or other format and/or memorialization of the historical resource on or near the proposed project site. If memorialized, such memorialization shall be a permanent installation, such as a mural, display, or other vehicle that recalls the location, appearance, and historical significance of the affected historical resource, and shall be designed in conjunction with a qualified architectural historian, historian, or historic architect.

Proposed Project Applicability: Mitigation Measure CUL-3 is not applicable to the proposed Project because the Project does not involve impacts to a historical resource.

CUL-4 For projects with ground disturbance—e.g., grading, excavation, trenching, boring, or demolition that extend below the current grade—prior to issuance of any permits required to conduct ground-disturbing activities, the City shall require an Archaeological Resources Assessment be conducted under the supervision of an archaeologist that meets the Secretary of the Interior’s Professionally Qualified Standards in either prehistoric or historic archaeology.

Assessments shall include a California Historical Resources Information System records search at the South Central Coastal Information Center and of the Sacred Land Files maintained by the Native American Heritage Commission. The records searches will determine if the proposed project area has been previously surveyed for archaeological resources, identify and characterize the results of previous cultural resource surveys, and disclose any cultural resources that have been recorded and/or evaluated. If unpaved surfaces are present within the project area, and the entire project area has not been previously surveyed within the past 10 years, a Phase I pedestrian survey shall be undertaken in proposed project areas to locate any surface cultural materials that may be present.

Proposed Project Applicability: Mitigation Measure CUL-4 is applicable to the proposed Project and an Archaeological Resources Assessment has been prepared and is included in Appendix E.

CUL-5 If potentially significant archaeological resources are identified, and impacts cannot be avoided, a Phase II Testing and Evaluation investigation shall be performed by an archaeologist who meets the Secretary of the Interior’s Standards to determine significance prior to any ground-disturbing activities. If resources are determined significant or unique through Phase II testing, and site avoidance is not possible, appropriate site-specific mitigation measures shall be undertaken. These might include a Phase III data recovery program implemented by a qualified archaeologist and performed in accordance with the Office of Historical Preservation’s “Archaeological Resource Management Reports (ARMR): Recommended Contents and Format” (OHP 1990) and “Guidelines for Archaeological Research Designs” (OHP 1991).

Proposed Project Applicability: Mitigation Measure CUL-5 is not applicable to the proposed Project as the Archaeological Resources Assessment conducted for the Project did not identify any potentially significant archaeological resources onsite.

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 onsite 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.

Proposed Project Applicability: Mitigation Measure CUL-6 is applicable to the proposed Project as determined by the Archaeological Resources Assessment Report (Appendix E) because the site has been determined to be sensitive for archaeological resources. This measure will be included in the Mitigation Monitoring and Reporting Program (MMRP) for the proposed Project.

CUL-7 If an Archaeological Resources Assessment does not identify potentially significant archaeological resources but the site has moderate sensitivity for archaeological resources (Mitigation Measure CUL-4), an archaeologist who meets the Secretary's Standards shall be retained on call. The archaeologist shall inform all construction personnel prior to construction activities about the proper procedures in the event of an archaeological discovery. The pre-construction training shall be held in conjunction with the project's initial onsite safety meeting and shall explain the importance and legal basis for the protection of significant archaeological resources. 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 on-call archaeologist is contacted. The resource shall be evaluated for significance and tribal consultation shall be conducted, in the case of a 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.

Proposed Project Applicability: Mitigation Measure CUL-7 is not applicable to the proposed Project as the Archaeological Resources Assessment conducted for the Project has a high sensitivity for archaeological resources, necessitating archaeological monitoring as included in Mitigation Measure CUL-6.

Proposed Specific Plan Project Mitigation Measures

MM CR-1 If a resource is determined significant, the Project Applicant, qualified archaeologist, and tribal monitors (as included in MM TCR-1) Native American tribal representative shall meet and confer regarding the treatment measures and mitigation for such resources. Pursuant to PRC Section 21083.2(b), avoidance is the preferred method of preservation for archaeological resources and may include deeding archaeological resources into permanent conservation easements or planning parks, greenspace, or other open space to incorporate archaeological resources. If preservation in place or avoidance is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent

laboratory processing and analysis of the artifacts that are recovered. The methods and results of the data recovery excavations shall be included in the monitoring report that is described in MM CR-2. The report shall include a description of resources recovered, treatment of the resources, results of the artifact processing, analysis, and research, and evaluation of the resources with respect to the California Register of Historical Resources and CEQA. Construction activities in the immediate vicinity of the discovery can resume once the fieldwork component of the treatment measures has been implemented. These treatment measures and mitigation shall reduce any significant impacts by ensuring that either the resource is preserved in place or is removed prior to its destruction by construction activities.

MM CR-2 After monitoring has been completed, the qualified archaeologist shall prepare a monitoring report that details the results of monitoring activities, which shall be submitted to the City and to the SCCIC at the University California, Fullerton.

5.2.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of GPU FEIR Mitigation Measure CUL-6 and Project-specific Mitigation Measures CR-1 and CR-2, and compliance with the goals and policies of the Santa Ana GPU, Project impacts to cultural resources would be less than significant.

REFERENCES

City of Santa Ana General Plan Update. April 2022. Accessed: <https://www.santa-ana.org/general-plan-documents/>

City of Santa Ana Municipal Code. Accessed: https://library.municode.com/ca/santa_ana

Related Bristol, Santa Ana, California Historic Resource Assessment. January 2023a. Prepared by ESA. (Appendix D)

Related Bristol, City of Santa Ana, California Archaeological Resources Assessment Report. January 2023b. Prepared by ESA. (Appendix E)

Placeworks. Santa Ana General Plan Update Final Recirculated Program Environmental Impact Report. October 2021. Accessed: <https://www.santa-ana.org/general-plan-environmental-documents/>

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5.3 Energy

5.3.1 INTRODUCTION

This section of the Supplemental EIR assesses the significance of the use of energy, including electricity, natural gas and gasoline, and diesel fuels, that would result from implementation of the proposed Related Bristol Specific Plan Project. It discusses existing energy use patterns and examines whether the proposed Project (including development and operation) would result in the consumption of large amounts of fuel or energy or use such resources in a wasteful manner.

Refer to Section 5.5, *Greenhouse Gas Emissions*, for a discussion of the relationship between energy consumption and greenhouse gas (GHG) emissions, and Section 5.15, *Utilities and Service Systems*, for a discussion of water consumption. This section includes data from the:

- *City of Santa Ana General Plan Update*
- *City of Santa Ana General Plan Update Final EIR*
- *City of Santa Ana Municipal Code*
- *Energy Assessment, Appendix F*

5.3.2 REGULATORY SETTING

Energy Independence and Security Act, Corporate Average Fuel Efficiency Standards

In response to *Massachusetts et al. vs. Environmental Protection Agency et al.*, the Bush Administration issued an executive order on May 14, 2007, directing the U.S. Environmental Protection Agency and the Department of Transportation to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. On December 19, 2007, the Energy Independence and Security Act of 2007 was signed into law, requiring an increased Corporate Average Fuel Economy (CAFE) standard of 35 miles per gallon (mpg) for the combined fleet of cars and light trucks by the 2020 model year.

In addition to setting increased CAFE standards for motor vehicles, the Energy Independence and Security Act includes the following additional provisions:

- Renewable Fuel Standard (Section 202)
- Appliance and Lighting Efficiency Standards (Sections 301–325)
- Building Energy Efficiency (Sections 411–441)

Additional provisions of the Act address energy savings in government and public institutions, promoting research for alternative energy, additional research in carbon capture, international energy programs, and the creation of green jobs.

California Code of Regulations (CCR) Title 13, Motor Vehicles, Section 2449(d)(3)

No vehicle or engines subject to this regulation may idle for more than 5 consecutive minutes. The idling limit does not apply to:

- idling when queuing,
- idling to verify that the vehicle is in safe operating condition,
- idling for testing, servicing, repairing, or diagnostic purposes,

- idling necessary to accomplish work for which the vehicle was designed (such as operating a crane),
- idling required to bring the machine system to operating temperature, and
- idling necessary to ensure safe operation of the vehicle.

California Public Utilities Commission Plans and Programs

The California Public Utilities Commission (CPUC) has authority to set electric rates, regulate natural gas utility service, protect consumers, promote energy efficiency, and ensure electric system reliability. The CPUC has established rules for the planning and construction of new transmission facilities, distribution facilities, and substations. Utility companies are required to obtain permits to construct certain power line facilities or substations. The CPUC also has jurisdiction over the siting of natural gas transmission lines.

The CPUC regulates distributed energy generation policies and programs for both customers and utilities. This includes incentive programs (e.g., California Solar Initiative) and net energy metering policies. Net energy metering allows customers to receive a financial credit for power generated by their onsite system and fed back to the utility. The CPUC is involved with utilities through a variety of energy procurement programs, including the Renewable Portfolio Standard program.

In 2008, the CPUC adopted the Long-Term Energy Efficiency Strategic Plan, which is a road map to achieving maximum energy savings in California through 2020. Consistent with California's energy policy and electricity "loading order," the Energy Efficiency Strategic Plan indicates that energy efficiency is the highest priority resource in meeting California's energy needs. The CPUC also adopted energy goals that require all new residential construction in California to be zero net energy by 2020. The zero-net energy goal means new buildings must use a combination of improved efficiency and distributed renewable energy generation to meet 100 percent of their annual energy need. In addition to the zero net energy goals for residential buildings by 2020, the CPUC has adopted goals that all new commercial construction in California will be zero net energy by 2030, and 50 percent of existing commercial buildings will be retrofit to zero net energy by 2030.

Clean Energy and Pollution Reduction Act of 2015

The Clean Energy and Pollution Reduction Act of 2015 (SB 350) requires that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased from 33 percent to 50 percent by December 31, 2030, thereby doubling energy efficiency within the State. SB 350 makes revisions to the California Renewable Portfolio Standards (RPS) Program and to certain other requirements on public utilities and publicly owned electric utilities. SB 350 also requires local publicly-owned electric utilities to establish annual targets for energy efficiency savings and demand reduction consistent with a statewide goal established by the CPUC and provides incentives for electrification of rail facilities. Local utilities would be required to develop more detailed strategies and incentives for use of renewable energy sources, resulting in an increased demand for renewable energy generation.

SB 350 emphasizes the important role of electric vehicles in California's overall scheme to combat climate change, declaring that "[d]eploying electric vehicles should assist in grid management, integrating generation from eligible renewable energy resources, and reducing fuel costs for vehicle drivers." The bill promotes the development of additional electric vehicle charging infrastructure to encourage greater use of electric cars and requires electrical utilities to include expansion of electrical vehicle charging facilities as part of their strategies and incentives for reducing overall energy consumption.

Assembly Bill 1007 (Pavley, Chapter 371, Statutes of 2005)

Assembly Bill 1007 required the California Energy Commission (CEC) to prepare a state plan (State Alternative Fuels Plan) to increase the use of alternative fuels in California. The Commission prepared the State Alternative Fuels Plan in partnership with the California Air Resources Board and in consultation with other state, federal, and local agencies. The final State Alternative Fuels Plan, published in December 2007, attempts to achieve an 80-percent reduction in greenhouse gas emissions associated with personal transportation, even as California's population increases. Measures proposed that would reduce petroleum fuel use include:

1. Lowering the energy needed for personal transportation by tripling the energy efficiency of on-road vehicles by 2050 through:
 - a. Conventional gas, diesel, and flexible fuel vehicles (FFVs) averaging more than 40 miles per gallon (mpg).
 - b. Hybrid gas, diesel, and FFVs averaging almost 60 mpg.
 - c. All electric and plug-in hybrid electric vehicles (PHEVs) averaging well over 100 mpg (on a greenhouse gas equivalents [GGE] basis) on the electricity cycle.
 - d. Fuel cell vehicles averaging over 80 mpg (on a GGE basis).
2. Moderating growth in per capita driving, reducing today's average per capita driving miles by about 5 percent or back to 1990 levels.
3. Changing the energy sources for transportation fuels from the current 96 percent petroleum-based to approximately:
 - a. 30 percent from gasoline and diesel from traditional petroleum sources or lower GHG emission fossil fuels such as natural gas.
 - b. 30 percent from transportation biofuels.
 - c. 40 percent from a mix of electricity and hydrogen.
4. Producing transportation biofuels, electricity, and hydrogen from renewable or very low carbon-emitting technologies that result in, on average, at least 80 percent lower life cycle GHG emissions than conventional fuels.
5. Encouraging more efficient land uses and greater use of mass transit, public transportation, and other means of moving goods and people.

Title 24 Energy Efficiency Standards and California Green Building Standards

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code (CalGreen) was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 update that is applicable to building permit applications submitted after January 1, 2023. The updated 2022 standards focus on the following:

- Encouraging electric heat pump technology and use. Heat pumps use less energy and produce fewer emissions than traditional HVACs and water heaters.
- Establishing electric-ready requirements when natural gas is installed to provide for electric heating, cooking, and electric vehicle (EV) charging.
- Expanding solar photovoltaic (PV) system and battery storage standards.
- Strengthening ventilation standards to improve indoor air quality.

In addition to these updated standards, the CALGreen standards that are applicable to the proposed Project include, but are not limited to, the following:

- Short-term bicycle parking. Provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5 percent of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack.
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility.
- Designated parking for clean air vehicles. Provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Title 24 Part 6 Table 5.106.5.2.
- Electric vehicle charging stations. Facilitate the future installation of electric vehicle supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load.
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight, and glare ratings per Title 24 Part 6 Table 5.106.8.
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste.
- Excavated soil and land clearing debris. 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled.
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals.
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
 - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush.
 - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush. The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush.
 - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi. Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi. Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute. Metering faucets shall not deliver more than 0.20 gallons per cycle. Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle.
- Outdoor portable water use in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient (MWELo), whichever is more stringent.
- Water meters. Separate submeters or metering devices shall be installed for new buildings or where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day.
- Outdoor water use in rehabilitated landscape projects equal or greater than 2,500 SF . Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 SF requiring a building or landscape permit.
- Commissioning. For new buildings 10,000 SF and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements.

The CalGreen Building Standards Code has been adopted by the City of Santa Ana by reference in Municipal Code Section 8-2900.

City of Santa Ana General Plan

The City' General Plan Update contains the following energy related goal and policies that are relevant to the proposed Project:

Conservation Element

- POLICY CN-1.4** Support new development that meets or exceeds standards for energy-efficient building design and site planning.
- POLICY CN-1.11** 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** 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-1.14** Require and incentivize projects to incorporate Transportation Demand Management (TDM) 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** Promote energy-efficient development patterns by clustering mixed use developments and compatible uses adjacent to public transportation.
- POLICY CN-3.4** Encourage site planning and subdivision design that incorporates the use of renewable energy systems.
- 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.
- 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.
- 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.

Land Use Element

- POLICY LU-1.6** Encourage residential mixed-use development, within the City's District Centers and Urban Neighborhoods, and adjacent to high quality transit.

- POLICY LU-2.5** 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** Focus high density residential in mixed-use villages, designated planning focus areas, Downtown Santa Ana, and along major travel corridors.
- POLICY LU-4.3** 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** Encourage the use of natural processes to capture rainwater runoff, sustainable electric power, and passive climate control.
- POLICY LU-4.5** Concentrate development along high-quality transit corridors to reduce vehicle miles traveled (VMT) and transportation related carbon emissions.

Urban Design Element

- POLICY UD-1.6** Support the creation of citywide public street and site amenities that accommodate and promote an active transportation-friendly environment.
- POLICY UD-2.10** Focus high density residential in mixed-use villages, designated planning focus areas, Downtown Santa Ana, and along major travel corridors.
- POLICY UD-2.11** 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.

5.3.3 ENVIRONMENTAL SETTING

Electricity

The Southern California Edison Company (SCE) is the electrical purveyor in the City of Santa Ana. SCE provides electricity service to more than 14 million people in a 50,000 square-mile area of central, coastal and Southern California. California utilities are experiencing increasing demands that require modernization of the electric distribution grid to, among other things, accommodate two-way flows of electricity and increase the grid's capacity. SCE is in the process of implementing infrastructure upgrades to ensure the ability to meet future demands. In addition, as described by the Edison International 2022 Annual Report, the SCE electrical grid modernization effort supports implementation of California requirements to achieve carbon neutrality by 2045. The state has set Renewables Portfolio Standards that require retail sellers of electricity to provide 60 percent of power from renewable resources by 2030. The state also requires sellers of electricity to deliver 100 percent of retail sales from carbon-free sources by 2045, including interim targets of 90 percent by 2035 and 95 percent by 2040. In 2022 approximately 48 percent of power that SCE delivered to customers came from carbon-free resources (SCE 2022).

The GPU FEIR describes that in 2020 the total estimated electricity demand in Santa Ana, based on data provided by SCE, is estimated at 1,570,457,233 kilowatt hours (kWh) per year, as shown in Table 5.3-1.

Table 5.3-1: Estimated Existing City of Santa Ana Electricity Usage

Electricity Usage	Electricity Usage, kWh per year
Residential	380,621,219
Nonresidential	1,189,836,014
Total	1,570,457,233

Source: GPU FEIR Table 5.5-1

The Project site is currently served by the electricity distribution system that exists along the roadways adjacent to the site.

Natural Gas

The Southern California Gas Company (SoCalGas) is the natural gas purveyor in the City of Santa Ana and is the principal distributor of natural gas in Southern California. SoCalGas estimates that gas demand will decline at an annual rate of 1.5 percent from 2022 to 2035 due to modest economic growth, mandated energy efficiency standards and programs, renewable electricity goals, and fuel substitution (CGEU 2022). The gas supply available to SoCalGas is regionally diverse and includes supplies from California sources (onshore and offshore), Southwestern U.S. supply sources, the Rocky Mountains, and Canada (CGEU 2022). SoCalGas designs its facilities and supplies to provide continuous service during extreme peak demands and has identified the ability to meet peak demands through 2035 (CGEU 2022).

The GPU FEIR describes that in 2020 the total estimated natural gas demand in Santa Ana, based on data provided by SoCalGas, was estimated to be 48.9 million therms per year, as shown in Table 5.3-2.

Table 5.3-2: Estimated Existing City of Santa Ana Natural Gas Usage

Electricity Usage	Natural Gas Usage, therms per year
Residential	21,783,050
Nonresidential	27,074,864
Total	48,857,914

Source: GPU FEIR Table 5.5-2

The Project site is currently served by the natural gas distribution system that exists within the roadways that are adjacent to the Project site.

5.3.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of the CEQA Guidelines indicates that a project could have a significant effect if it were to:

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.

5.3.5 METHODOLOGY

A number of factors are considered when weighing whether a project would use a proportionately large amount of energy or whether the use of energy would be wasteful in comparison to other projects. Factors

such as the use of onsite renewable energy features, energy conservation features or programs, and relative use of transit are considered.

According to Appendix F of the CEQA Guidelines, conserving energy is defined as decreasing overall per capita energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. Neither Appendix F of the CEQA Guidelines nor Public Resources Code Section 21100(b)(3) offer a numerical threshold of significance that might be used to evaluate the potential significance of energy consumption of a project. Rather, the emphasis is on reducing “the wasteful, inefficient, and unnecessary consumption of energy.”

Construction activities would result in wasteful, inefficient, or unnecessary use of energy if, for example, construction equipment is old or not well maintained, if equipment is left to idle when not in use, if travel routes are not planned to minimize vehicle miles traveled, or if excess lighting or water is used during construction activities. Energy usage during project operation would be considered “wasteful, inefficient, and unnecessary” if the project were to violate federal, state, and/or local energy standards, including Title 24 of the California Code of Regulations, inhibit pedestrian or bicycle mobility, inhibit access to transit, or inhibit feasible opportunities to use alternative energy sources, such as solar energy, or otherwise inhibit the conservation of energy.

5.3.6 ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR addressed impacts related to energy in Chapter 5.5. The GPU FEIR determined that implementation of the GPU policies, in conjunction with and complementary to regulatory requirements, would ensure that energy demand associated with growth under the GPU would not be inefficient, wasteful, or unnecessary. In addition, the GPU FEIR determined that land uses accommodated under the General Plan Update would comply with the current and future iterations of the Building Energy Efficiency Standards and CALGreen. Furthermore, GPU FEIR discussed that the General Plan Update includes conservation element policies 3.1, 3.3, 3.4, 3.6, and 3.9, which would support the statewide goal of transitioning the electricity grid to renewable sources. Therefore, the GPU FEIR concluded implementation of the General Plan Update would not conflict with or obstruct implementation of California’s RPS program or the City of Santa Ana’s CAP, and no significant impact would occur.

Proposed Specific Plan Project

IMPACT E-1: THE PROJECT WOULD NOT RESULT IN A POTENTIALLY SIGNIFICANT ENVIRONMENTAL IMPACT DUE TO WASTEFUL, INEFFICIENT, OR UNNECESSARY CONSUMPTION OF ENERGY RESOURCES, DURING PROJECT CONSTRUCTION OR OPERATION.

Less than Significant Impact.

Construction

During the construction phases of the proposed Project energy would be consumed in 3 general forms:

1. Petroleum-based fuels used to power off-road construction vehicles and equipment on the Project site, construction worker travel to and from the Project site, as well as delivery truck trips;
2. Electricity associated with providing temporary power for lighting and electric equipment; and

3. Energy used in the production of construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Construction activities related to each phase of the proposed Project would not result in demand for fuel greater on a per-unit-of-development basis than other development projects in Southern California. Demolition of the existing buildings and infrastructure that exist onsite would need to be undertaken; however, because much of the demolition materials can be recycled, the demolition needed to implement the proposed Project is not considered to be wasteful. In addition, the extent of construction activities that would occur from implementation of the proposed Project is limited. Construction would occur in three phases and pursuant to the City’s allowable construction hours, with the exception of limited concrete pour activities that would be allowed pursuant to City permitting. The demand for construction-related electricity and fuels would be limited to those time frames and would vary based on construction activities.

Also, CCR Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Additionally, construction contractors are required to demonstrate compliance with applicable California Air Resources Board (CARB) regulations governing the accelerated retrofitting, repowering, or replacement of heavy-duty diesel on- and off-road equipment during the City’s construction permitting process. Compliance with existing CARB idling restrictions and the use of newer engines and equipment would reduce fuel combustion and energy consumption.

As identified in Table 5.3-3, the overall diesel fuel consumption during construction of the proposed Project would be 529,054 gallons for Phase 1, 287,909 gallons for Phase 2, and 637,296 gallons for Phase 3. Gasoline consumption would be 384,969 gallons for Phase 1, 99,845 gallons for Phase 2, and 416,625 gallons for Phase 3. The need for construction fuel 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. Construction activities would comply with all existing regulations, as required through the City’s development permitting process, and would not use large amounts of energy or fuel in a wasteful, inefficient, or unnecessary manner. Thus, impacts related to construction energy usage would be less than significant.

Table 5.3-3: Estimated Project Energy Usage Without Mitigation

Energy Type	Project Annual Energy Consumption
Phase 1	
Operational Electricity and Natural Gas	
Electricity Consumption	17,182,736 kWh
Natural Gas Consumption	279,772 therms
Automotive Fuel Consumption	
Project Construction	
Diesel	529,054 gallons
Gasoline	384,969 gallons
Project Operations	
Diesel	431,837 gallons
Gasoline	1,435,828 gallons

Energy Type	Project Annual Energy Consumption
Phase 2	
Operational Electricity and Natural Gas	
Electricity Consumption	6,100,357 kWh
Natural Gas Consumption	88,107 therms
Automotive Fuel Consumption	
Project Construction	
Diesel	287,909 gallons
Gasoline	99,845 gallons
Project Operations	
Diesel	181,517 gallons
Gasoline	570,283 gallons
Phase 3	
Operational Electricity and Natural Gas	
Electricity Consumption	9,271,206 kWh
Natural Gas Consumption	151,580 therms
Automotive Fuel Consumption	
Project Construction	
Diesel	637,296 gallons
Gasoline	416,625 gallons
Project Operations	
Diesel	261,236 gallons
Gasoline	868,590 gallons
Buildout	
Operational Electricity and Natural Gas	
Electricity Consumption	32,554,299 kWh
Natural Gas Consumption	519,459 therms
Operational Fuel	
Diesel	874,590 gallons
Gasoline	2,874,701 gallons

Source: Energy Assessment, Appendix F

Operation

Once operational, the residential and retail/restaurant commercial uses would generate demand for electricity, natural gas, as well as gasoline for motor vehicle trips. Operational use of energy includes the heating, cooling, and lighting of building areas, water heating, operation of electrical systems and appliances, parking lot and outdoor lighting, and the transport of electricity, natural gas, and water to the areas where they would be consumed. This use of energy is typical for urban development, and no operational activities or land uses would occur that would result in extraordinary energy consumption.

Fuel Demand. As identified in Table 5.3-3, Project operations for Phase 1 are estimated to consume approximately 431,837 gallons of diesel fuel and 1,435,828 gallons of gasoline fuel per year. Project operations for Phase 2 are estimated to consume approximately 181,517 gallons of diesel fuel and 570,283 gallons of gasoline fuel per year. Project operations for Phase 3 are estimated to consume approximately 261,236 gallons of diesel fuel and 868,590 gallons of gasoline fuel per year. Project

operations at buildout are estimated to consume approximately 874,590 gallons of diesel fuel and 2,874,701 gallons of gasoline fuel per year. These estimates provide the operational needs of the proposed Project, and do not subtract the existing energy usage of the site. The proposed Project would not result in any unusual characteristics that would result in excessive long-term operational fuel consumption.

As further detailed in Section 5.13, *Transportation*, the Project site is located within a Transit Priority Area (TPA) and the Southern California Association of Governments (SCAG) identifies that the Project site is located within a High Quality Transit Area. Public transit bus service for the City is provided by the Orange County Transportation Authority (OCTA) by seven OCTA bus routes that operate within the vicinity of the Project site and travel along MacArthur Boulevard, Bristol Street, Sunflower Avenue, South Plaza Drive, and Bear Street. In addition, the proposed Project would install pedestrian and bicycle facilities that would connect to existing facilities near the site. The multi-modal environment of the proposed Project would reduce Vehicle Miles Traveled (VMT) and the associated fuel/energy consumption. Further, the proposed Project would provide a mix of residential, commercial, retail, restaurant, and open space uses that would reduce the need to travel offsite. Overall, fuel consumption associated with vehicle trips generated by the proposed Project would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region.

Building Energy Demand. Table 5.3-3 shows that operations of the proposed Project in Phase 1 would require approximately 17,182,736 kWh of electricity per year and approximately 279,772 therms of natural gas per year. Operations of the proposed Project in Phase 2 would require approximately 6,100,357 kWh of electricity per year and approximately 88,107 therms of natural gas per year. Operations of the proposed Project in Phase 3 would require approximately 9,271,206 kWh of electricity per year and approximately 151,580 therms of natural gas per year. Operations of the entire proposed Project at buildout would require approximately 32,554,299 kWh of electricity per year and approximately 519,459 therms of natural gas per year. These estimates provide the operational needs of the proposed Project, and do not subtract the existing energy usage of the existing 16 buildings on the Project site.

Through the City's development permitting process, the proposed Project would be required to comply with most current Title 24 Building Energy Efficiency Standards, which provide minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. Implementation of the Title 24 standards significantly reduces energy usage. In addition, Section 5.1, *Air Quality*, includes Mitigation Measure AQ-3 that requires implementation of a vehicle trip reduction program and Mitigation Measure AQ-4 that prohibits fireplaces. Also, as detailed in Section 5.5, *Greenhouse Gas Emissions*, Mitigation Measure GHG-1 requires installation of solar panels or other source of renewable electricity generation onsite to the maximum roof area available. Mitigation Measure GHG-2 requires the proposed Project to meet CALGreen Tier 2 voluntary energy efficiency standards, which surpass the building code energy efficiency requirements, and Mitigation Measure GHG-5 requires the proposed Project to install Energy Star certified or of equivalent energy efficient appliances in all residential units. As such, the proposed Project would not result in the inefficient, wasteful, or unnecessary consumption of building energy.

Land Use Type and Location Demand. The proposed Project consists of an urban infill redevelopment in a TPA and High Quality Transit Area that would provide mixed residential, open space, and commercial (retail/restaurant) uses. Since it would be undertaken on a currently developed and underutilized site, and would be located near existing offsite employment, commercial, residential, and retail destinations and adjacent to existing public bus stops and in proximity to freeways and destination locations, which would result in reduced vehicle trips and VMT.

The California Air Pollution Control Officers Association (CAPCOA) has provided guidance for mitigating or reducing transportation-related VMT from land use development projects within its guidance document titled

Quantifying Greenhouse Gas Mitigation Measures (CAPCOA 2010). The land use characteristics of the proposed Project are consistent with the CAPCOA guidance related to a reduction of vehicle trip distances that would achieve a reduction in associated transportation-related fuel demand, as described below.

- **Area Density:** CAPCOA identifies that increases in area density, measured in terms of persons, jobs, or dwelling units per unit area, reduces VMT associated with transportation¹, as it reduces the distance people travel for work or services and provides a foundation for the implementation of other strategies such as enhanced transit services (CAPCOA guidance measure LUT-1). According to CAPCOA, the reduction in VMT from increases in area density applies to urban and suburban settings for residential, retail, office, industrial, and mixed-use projects. The proposed Project would provide both residential, open space, retail/restaurant, and employment uses and is located in an urban infill location near other employment opportunities, services, and retail commercial and development. The proposed Project would provide an increase in area residential density and an improvement to the jobs-housing balance. As detailed in Section 5.10, *Population and Housing*, the Project region has an existing and projected future imbalance between the number of jobs and housing units, and per CAPCOA guidance, the addition of residential units within the area would reduce VMT and the VMT-related fuel demand. Therefore, the proposed Project is consistent with infill development that increases area density as described by CAPCOA. Thus, based on the CAPCOA guidance the proposed Project would not result in wasteful, inefficient, or unnecessary use of fuel, and impacts would be less than significant.
- **Location Efficiency:** Location efficiency describes the location of a project relative to the type of urban landscape such as an urban area, compact infill, or suburban center. CAPCOA guidance measure LUT-2.22 describes that a reduction in VMT and the related use of energy occurs from development within urban areas that include residential, retail, office, industrial, mixed-uses, and transportation access. As described previously, the proposed Project is located in an urban infill location and would provide residential units near employment, retail, and services that would provide for efficient use of transportation energy. The Project site location also provides for efficient energy use to access existing freeways (that include I-405 and SR-55), a regionally serving arterial roadway (Bristol Street), and the OCTA bus lines that run adjacent to the Project site.

In addition, the site is surrounded by sidewalks and is within walking and bicycling distance of various existing retail services, such as groceries, restaurants, banks, entertainment, and recreation facilities. According to the CAPCOA guidance, factors that contribute to VMT reductions include pedestrian connectivity between the project site and offsite destinations. The proposed Project would include onsite sidewalks, and offsite sidewalks and bicycle lanes that would connect to existing facilities. Both walking and bicycling to onsite or nearby destinations would reduce transportation energy use. Thus, the Project site location provides efficient use of transportation energy supplies and is consistent with policies for reducing VMT. Thus, the proposed Project would not result in wasteful, inefficient, or unnecessary use of fuel, and impacts would be less than significant.

In addition, the Project site is within an area where existing infrastructure would provide for efficient delivery of electricity and natural gas to the proposed Project and the proposed Project would not inhibit the development of other alternative energy sources. Furthermore, other existing and future regulations are likely to result in more efficient use of all types of energy, and reduction in reliance

¹ CalEEMod, by default, assumes that trip distances in the South Coast Air Basin (Basin) are slightly longer than the statewide average. This is because the commute patterns in the Basin involve a substantial portion of the population commuting relatively far distances, which is documented in the Southern California Association of Governments (SCAG) 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), which shows that in existing and future plan conditions, more than 50 percent of all work trips are 10 miles or longer (SCAG, Performance Measures Appendix, page 13, 2016). Thus, work trips that would be less than 10 miles would assist in meeting the 2016 RTP/SCS goal of reducing overall VMT in the region.

on non-renewable sources of energy. These include the Federal Energy Independence and Security Act, the State Long Term Energy Efficiency Strategic Plan, SB 350 and AB 1007 (described above), which are designed to reduce reliance on non-renewable energy resources and reduce demand by providing federal tax credits for purchasing fuel-efficient items and improving the renewable fuel, appliance, and lighting standards. Thus, operation of the proposed Project would not use large amounts of energy or fuel in a wasteful, inefficient, or unnecessary manner, and impacts would be less than significant.

This is consistent with the findings of the GPU FEIR, which determined that implementation of existing regulatory requirements would ensure that energy demand associated with growth under the GPU would not be inefficient, wasteful, or unnecessary; and that energy impacts associated with implementation and operation of the GPU land uses would be less than significant.

IMPACT E-2: THE PROJECT WOULD NOT CONFLICT WITH OR OBSTRUCT A STATE OR LOCAL PLAN FOR RENEWABLE ENERGY OR ENERGY EFFICIENCY.

No Impact. As described previously, the proposed Project would be required to meet the CCR Title 24 energy efficiency standards in effect during permitting of the proposed Project. The City’s administration of the CCR Title 24 requirements includes review of design components and energy conservation measures that occurs during the permitting process, which ensures that all requirements are met. In addition, the proposed Project would not conflict with or obstruct opportunities to use renewable energy, such as solar energy. Redevelopment of the site would not result in obstruction of opportunities for use of renewable energy. The proposed Project incorporates the use of solar energy. Through the City’s development permitting process, the proposed Project would be required to comply with most current Title 24 Building Energy Efficiency Standards, which provide minimum efficiency standards related to various building features, including water and space heating and cooling equipment, building insulation and roofing, and lighting. In addition, Section 5.5, *Greenhouse Gas Emissions*, Mitigation Measure GHG-1 requires installation of solar panels or other source of renewable electricity generation onsite to the maximum roof area available. Mitigation Measure GHG-2 requires the proposed Project to meet CALGreen Tier 2 voluntary energy efficiency standards, which surpass the building code energy efficiency requirements, and Mitigation Measure GHG-5 requires the proposed Project to install Energy Star certified or of equivalent energy efficient appliances in all residential units. Thus, the proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and impacts would not occur.

The City’s General Plan also includes various goals and policies related to energy. The applicable goals and the proposed Project’s consistency are described in Table 5.3-4.

Table 5.3-4: Consistency with General Plan Energy Policies

General Plan Policy	Project Consistency
Conservation Element	
Policy 1.4 Development Standards. Support new development that meets or exceeds standards for energy-efficient building design and site planning.	Consistent. As detailed in Section 5.5, <i>Greenhouse Gas Emissions</i> , Mitigation Measure GHG-1 requires installation of solar panels or other source of renewable electricity generation onsite to the maximum roof area available. Mitigation Measure GHG-2 requires the proposed Project to meet or exceed CALGreen Tier 2 voluntary energy efficiency standards, which surpass the building code energy efficiency requirements, and Mitigation Measure GHG-5 requires the proposed Project to install Energy Star certified or of equivalent energy efficient appliances in all residential units.

General Plan Policy	Project Consistency
<p>Policy 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.</p>	<p>Consistent. As detailed in Section 5.5, Greenhouse Gas Emissions, Mitigation Measure GHG-2 requires Project EV charging to meet CALGreen Tier 2 standards, which would promote the use of zero emission vehicles.</p>
<p>Policy 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.</p>	<p>Consistent. As noted above, Mitigation Measure GHG-2 requires Project EV charging to meet CALGreen Tier 2 standards, which would promote the use of zero emission vehicles. Additionally, the proposed Project would provide bicycle parking facilities in accordance with Santa Ana Municipal Code Section 41.1307.1. The proposed Project would include a variety of connectivity points for vehicles, bicycles, transit, and pedestrians. The proposed Project has multiple bus lines that stop at the existing public transit stops along the northern, eastern, and southern boundaries of the Project site.</p>
<p>Policy 1.14 Transportation Demand Management. Require and incentivize projects to incorporate Transportation Demand Management (TDM) techniques.</p>	<p>Consistent. Air Quality Assessment Mitigation Measure AQ-3 requires a Transportation Demand Management program. Single-occupancy vehicle trips would be discouraged and alternative modes of transportation such as carpooling, taking transit, walking, and biking would be encouraged and facilitated. In addition to onsite employment opportunities, the Project site is within walking distance of major office developments.</p>
<p>Policy 3.3 Development Patterns. Promote energy efficient-development patterns by clustering mixed use developments and compatible uses adjacent to public transportation.</p>	<p>Consistent. The proposed Project would redevelop an underutilized shopping center with an urban mixed-use infill project that would include retail, housing, and hotel uses near OCTA transit routes, major freeways, and roadways.</p>
<p>Policy 3.4 Site Design. Encourage site planning and subdivision design that incorporates the use of renewable energy systems.</p>	<p>Consistent. MM GHG-1 requires the installation of photovoltaic solar panels (i.e., the proposed Project would use renewable energy systems).</p>
<p>Policy 3.7 Energy Conservation Design and Construction. Incorporate energy conservation features in the design of new construction and rehabilitation projects.</p>	<p>Consistent. The proposed Project would install energy conservation features that comply with most current Title 24 Building Energy Efficiency Standards, as implemented by the City. In addition, Mitigation Measure GHG-1 requires installation of solar panels or other source of renewable electricity generation onsite to the maximum roof area available. Mitigation Measure GHG-2 requires the proposed Project to meet CALGreen Tier 2 voluntary energy efficiency standards, which surpass the building code energy efficiency requirements, and Mitigation Measure GHG-5 requires the proposed Project to install Energy Star certified or of equivalent energy efficient appliances in all residential units.</p>
<p>Land Use Element</p>	
<p>Policy 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.</p>	<p>Consistent. As noted above, the proposed Project would include retail, open space, housing, senior community, and hotel uses at an urban infill location near transit, major freeways, and roadways. The inclusion of 3,750 residential dwelling units would be conducive to the increased use of transit.</p>
<p>Policy 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.</p>	<p>Consistent. As noted above, the proposed Project would include retail, housing, senior community, and hotel uses (i.e., mixed-use) at an urban infill location near transit, major freeways, roadways, and bike routes.</p>

General Plan Policy	Project Consistency
Policy 2.10 Smart Growth. Focus high density residential in mixed-use villages, designated planning focus areas, Downtown Santa Ana, and along major travel corridors.	Consistent. The proposed Project is a mixed-use infill development in a transit priority area and designated focus area within the City.
Policy 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.	Consistent. The proposed Project is a mixed-use infill development within an urbanized area of the City that implements sustainable strategies near transit, pedestrian and bicycle facilities. Also, Mitigation Measure GHG-1 requires the installation of photovoltaic solar panels to offset energy emissions; Mitigation Measure GHG-2 requires the proposed Project to meet or exceed CALGreen Tier 2 standards to further improve energy efficiency. Mitigation Measure GHG-3 requires the proposed Project to divert 75 percent of waste from landfills.
Policy 4.4 Natural Resource Capture. Encourage the use of natural processes to capture rainwater runoff, sustainable electric power, and passive climate control.	Consistent. Mitigation Measure GHG-1 requires the proposed Project to include renewable solar energy to offset the proposed Project’s energy demand. Mitigation Measure GHG-2 requires the proposed Project to meet or exceed CALGreen Tier 2 standards to further improve energy efficiency.
Policy 4.5 VMT Reduction. Concentrate development along high-quality transit corridors to reduce vehicle miles traveled (VMT) and transportation related carbon emissions.	Consistent. As noted above, the proposed Project is located within a high quality transit corridor and would include retail, housing, open space, senior community, and hotel uses (i.e., mixed-use) at an urban infill location near transit, major freeways, and roadways.
Urban Design Element	
Policy 1.6 Active Transportation Infrastructure. Support the creation of citywide public street and site amenities that accommodate and promote an active transportation-friendly environment.	Consistent. Although this is a citywide measure, the proposed Project is a mixed-use infill development that would include pedestrian and bicycle amenities, plazas, and paseos that would promote pedestrian and bicycle mobility and access.
Policy 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.	Consistent. The proposed Project would comply with City landscaping and shade tree requirements. The proposed Project includes landscaping throughout the site adjacent to buildings, walkways, and roadways; and throughout open space areas.
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.	Consistent. The proposed Project would comply with City landscaping and shade tree requirements and include drought tolerant landscaping and efficient irrigation. The proposed Project would increase the amount of pervious surfaces on the site, and provide for energy efficient buildings and Project designs, as detailed previously.

This is consistent with the findings of the GPU FEIR, which determined that implementation of the City’s GPU would not interfere with any plan for renewable energy or energy efficiency, and that no impacts would occur.

5.3.7 CUMULATIVE IMPACTS

The geographic context for analysis of cumulative impacts regarding energy includes past, present, and future development within Southern California because energy supplies (including electricity, natural gas, and petroleum) are generated and distributed throughout the Southern California region.

All development projects throughout the region would be required to comply with the energy efficiency standards in the Title 24 requirements. Additionally, some of the developments could provide for additional

reductions in energy consumption by use of solar panels, sky lights, or other LEED type energy efficiency infrastructure. With implementation of the existing energy conservation regulations, cumulative electricity and natural gas consumption would not be cumulatively wasteful, inefficient, or unnecessary.

Petroleum consumption associated with the proposed mixed uses would be primarily attributable to transportation, especially vehicular use. However, state fuel efficiency standards and alternative fuels policies (per AB 1007 Pavely) would contribute to a reduction in fuel use, and the Federal Energy Independence and Security Act and the State Long Term Energy Efficiency Strategic Plan would reduce reliance on non-renewable energy resources. For these reasons, the consumption of petroleum would not occur in a wasteful, inefficient, or unnecessary manner and would be less than cumulatively considerable.

5.3.8 EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS, OR POLICIES

The following standard regulation would reduce potential impacts related to energy:

- California Energy Code (Code of Regulations, Title 24 Part 6).

5.3.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements, Impacts E-1 and E-2 would be less than significant.

5.3.10 MITIGATION MEASURES

GPU FEIR Mitigation Measures

The GPU FEIR determined that impacts related to energy would be less than significant and no mitigation measures were required.

Proposed Specific Plan Project Mitigation Measures

Although impacts related to energy would be less than significant, the following mitigation measures from Section 5.1, *Air Quality* and Section 5.5, *Greenhouse Gas Emissions*, would further reduce Project effects related to energy.

Mitigation Measure AQ-3: Vehicle Trip Reduction. As listed previously in Section 5.1, *Air Quality*.

Mitigation Measure AQ-4: Prohibition of Fireplaces. As listed previously in Section 5.1, *Air Quality*.

Mitigation Measure GHG-1: Solar Panels. As listed in Section 5.5, *Greenhouse Gas Emissions*.

Mitigation Measure GHG-2: LEED, Charging Stations, and Bus Stops. As listed in Section 5.5, *Greenhouse Gas Emissions*.

Mitigation Measure GHG-5: Energy Efficient Appliances. As listed in Section 5.5, *Greenhouse Gas Emissions*.

5.3.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to energy would be less than significant.

REFERENCES

- California Air Pollution Control Officers Association Quantifying Greenhouse Gas Mitigation Measures, 2010. Accessed at: <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>.
- California Energy Commission Title 24 Building Energy Standards (CEC 2023). Accessed: <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency>
- California Gas and Electric Utilities 2022 California Gas Report (CGEU 2022). Accessed: <https://www.socalgas.com/regulatory/cgr.shtml>.
- City of Santa Ana General Plan Update. April 2022. Accessed: <https://www.santa-ana.org/general-plan-documents/>
- City of Santa Ana General Plan Update Final Recirculated Draft Program Environmental Impact Report - October 2021. Accessed: <https://www.santa-ana.org/general-plan-environmental-documents/>
- Energy Assessment. May 2023. Prepared by Kimley-Horn (Appendix F)
- Edison International 2022 Annual Report (SCE 2022). Accessed: <https://www.edison.com/investors/financial-reports-information/annual-reports>
- Southern California Edison. Accessed: <http://sce.com/wps/portal/home/about-us/reliability>.

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5.4 Geology and Soils

5.4.1 INTRODUCTION

This section addresses potential environmental effects of the proposed Project related to geology, soils, seismicity, and paleontological resources. The impacts examined include risks related to geologic hazards such as earthquakes, landslides, liquefaction, expansive soils; impacts on the environment related to soil erosion and sedimentation; and impacts related to paleontological resources. Information within this section is based on the following:

- *City of Santa Ana General Plan Update*
- *City of Santa Ana General Plan FEIR*
- *City of Santa Ana Municipal Code*
- *Preliminary Geotechnical Investigation Report (Geotechnical Report) (Appendix G)*
- *Paleontological Resources Assessment Report (Appendix H).*

5.4.2 REGULATORY SETTING

Earthquake Hazards Reduction Act

The Earthquake Hazards Reduction Act was enacted in 1997 to “reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program.” To accomplish this, the Act established the National Earthquake Hazards Reduction Program that provides characterization, and prediction of hazards and vulnerabilities; improvement of building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improvement of mitigation capacity; and accelerated application of research results. This Act designated the Federal Emergency Management Agency (FEMA) as the lead agency of the program and assigns it several planning, coordinating, and reporting responsibilities. Programs under this Act provide building code requirements such as emergency evacuation responsibilities and seismic code standards such as those to which development under the proposed Project would be required to adhere to.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface fault rupture to structures used for human occupancy. The main purpose of the Act is to prevent the construction of buildings for human occupancy on top of the traces of active faults. It was passed into law following the February 1971 magnitude 6.5 San Fernando (Sylmar) Earthquake that resulted in over 500 million dollars in property damage and 65 deaths. Although the Act addresses the hazards associated with surface fault rupture, it does not address other earthquake-related hazards, such as seismically induced ground shaking, liquefaction, or landslides.

This Act requires the State Geologist to establish regulatory zones, now referred to as Earthquake Fault Zones, around the mapped surface traces of active faults, and to publish appropriate maps that depict these zones. Earthquake Fault Zone maps are publicly available and distributed to all affected cities, counties, and state agencies for their use in planning and controlling new or renewed construction. The Act requires local agencies to regulate development within Earthquake Fault Zones. Before a development project can be permitted within an Earthquake Fault Zone, a geologic investigation is required to demonstrate that proposed buildings would not be constructed across active faults. A site-specific evaluation and written report

must be prepared by a licensed geologist. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back a minimum of 50 feet from the fault.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act, which was passed by the California legislature in 1990, addresses earthquake hazards related to liquefaction and seismically induced landslides. Under the Act, seismic hazard zones are mapped by the State Geologist in order to assist local governments in land use planning. The Act states “it is necessary to identify and map seismic hazard zones in order for cities and counties to adequately prepare the safety element of their general plans and to encourage land use management policies and regulations to reduce and mitigate those hazards to protect public health and safety.” Section 2697(a) of the Act states that “cities and counties shall require, prior to the approval of a project located in a seismic hazard zone, a geotechnical report defining and delineating any seismic hazard... Each city and county shall submit one copy of each approved geotechnical report, including the mitigation measures, if any, that are to be taken, to the State Geologist within 30 days of its approval of the report.”

California Building Code

The California Building Code (CBC) is included in Title 24 of the California Code of Regulations. The CBC incorporates the International Building Code, a model building code adopted across the United States. Current state law requires every city, county, and other local public agency enforcing building regulations to adopt the provisions of the CBC within 180 days of its publication. The publication date of the CBC is established by the California Building Standards Commission. The current CBC was adopted by the City and is included in Title 8 of the City’s Municipal Code. These codes provide standards to protect property and public safety. They regulate the design and construction of excavations, foundations, building frames, retaining walls, and other building elements, and thereby mitigate the effects of seismic shaking and adverse soil conditions. The codes also regulate grading activities, including drainage and erosion control.

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 and 2012-0006-DWQ). The last Construction General Permit amendment became effective on July 17, 2012. The Construction General Permit regulates construction site storm water management. 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.

To obtain coverage under this permit, project operators must electronically file Permit Registration Documents, which include a Notice of Intent, a Storm Water Pollution Prevention Plan (SWPPP), and other compliance-related documents, including a risk-level assessment for construction sites, an active storm water effluent monitoring and reporting program during construction, rain event action plans, and numeric action levels (NALs) for pH and turbidity, as well as requirements for qualified professionals to prepare and implement the plan. The Construction General Permit requires the SWPPP to identify Best Management Practices (BMPs) that will be implemented to reduce soil erosion. Types of BMPs include preservation of vegetation and sediment control (e.g., fiber rolls).

California Public Resources Code Section 5097.5 and Section 30244

California Public Resources Code Sections 5097.5 and 30244 prohibit the removal of any paleontological site or feature from public lands without permission of the jurisdictional agency, define the removal of paleontological sites or features as a misdemeanor, and require reasonable mitigation of adverse impacts to paleontological resources.

City of Santa Ana General Plan

The existing General Plan Historic Preservation Element and Safety Element includes the following policies related to geology and soils:

Historic Preservation Element

- 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.

Safety Element

- 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.

City of Santa Ana Municipal Code

Municipal Code Chapter 8, Article 2, Division 1; California Building Code: The CBC has been amended and adopted as Chapter 8, Article 2, Division 1 of the City's Municipal Code (Building Code). This regulates all building and construction projects within the City limits and implements a minimum standard for building design and construction. These minimum standards include specific requirements for seismic safety, excavation, foundations, retaining walls and site demolition. It also regulates grading activities including drainage and erosion control.

Section 18-156; Control of Urban Runoff: This code section states that all new development and significant redevelopment within the City shall be undertaken in accordance with the County Drainage Area Management Plan (DAMP), 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 on 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.

5.4.3 ENVIRONMENTAL SETTING

Regional Setting

The Project region is located within the Los Angeles Basin which is part of the Peninsular Range Geomorphic Province of California. The Peninsular Ranges are characterized by a series of northwest trending mountain ranges separated by valleys. Range geology consists of granitic rock intruding the older metamorphic rocks. Valley geology is characterized by shallow to deep alluvial basins consisting of gravel, sand, silt, and clay (Appendix G).

The Project region is located at the southern margin of the Los Angeles Basin, which ends abruptly with the Newport-Inglewood uplift. The uplift is characterized by coastal mesas of late Miocene to early Pleistocene marine sediments and late Pleistocene marine terrace deposits.

Faults and Ground Shaking

In 1972, the Alquist-Priolo Special Studies Zones Act was signed into law. In 1994, it was renamed the Alquist-Priolo Earthquake Fault Zoning Act (A-P Act). The primary purpose of the A-P Act is to mitigate the hazard of fault rupture by prohibiting the location of structures for human occupancy across the trace of an active fault. The A-P Act requires the State Geologist (Chief of the California Geology Survey) to delineate “Earthquake Fault Zones” along with faults that are “sufficiently active” and “well-defined.” The boundary of an “Earthquake Fault Zone” is generally about 500 feet from major active faults and 200 to 300 feet from well-defined minor faults. The A-P Act dictates that cities and counties withhold development permits for sites within an Alquist-Priolo Earthquake Fault Zone until geologic investigations demonstrate that the site zones are not threatened by surface displacements from future faulting. Seismic activity has been known to cause surface rupture, or ground displacement, along a fault or within the general vicinity of a fault zone.

As described by the GPU FEIR, the City is located within the Peninsular Ranges Geomorphic Province that is traversed by a group of subparallel and fault zones trending roughly northwest. Major active fault systems—San Andreas, San Jacinto, Whittier-Elsinore, and Newport-Inglewood fault zones—form a regional tectonic framework consisting primarily of right-lateral, strike-slip movement. Santa Ana is situated between two major active fault zones—the Whittier-Elsinore Fault Zone to the northeast and the Newport-Inglewood Fault to the southwest. Other potentially active faults near Santa Ana include the Elysian Park blind thrust; Chino-Central Avenue, San Joaquin Hills blind thrust, and San Jose, Cucamonga, Sierra Madre, and Palos Verdes faults. The GPU FEIR describes that Newport-Inglewood Fault is the dominant active fault that could significantly impact the City.

The Project site is not located within an Alquist-Priolo Fault Zone and no active faults are known to cross the site. The closest known active faults are associated with the San Joaquin Hills Fault, located approximately 1.3 miles northeast of the site and the Newport-Inglewood Fault Zone, approximately 4.1 miles southwest of the site (Appendix G).

However, all of Southern California is seismically active. The amount of motion expected at a building site can vary from none to forceful depending upon the distance to the fault, the magnitude of the earthquake, and the local geology. Greater movement can be expected at sites located on poorly consolidated material such as alluvium located near the source of the earthquake epicenter or in response to an earthquake of great magnitude.

Onsite Soils

Based on geologic maps, the Project site is situated on Holocene alluvial soils. The near surface soils are characterized by young axial channel deposits (Appendix G). The Geotechnical Report describes that the site is generally comprised of three distinct soil zones to the maximum depth explored to 115 feet below ground surface (bgs) that include:

- Soil Zone 1 – From a depth of 0 to 30 feet, which consists predominantly of medium stiff to stiff lean clay and fat clay with medium high plasticity;
- Soil Zone 2 – From a depth of 30 to 80 feet, which consists of a mixed soil condition with interbedded silty sand, poorly-graded sands and lean clays;
- Soil Zone 3 – From a depth of 80 to 100 feet, which consists of very dense poorly graded sands.

Groundwater

The Geotechnical Report (Appendix G) describes that historic highest groundwater at the site has been mapped at a depth of about 5 feet bgs, and that groundwater during the geotechnical site investigation was encountered at a depth of between 12 feet and 16 feet bgs. However, that groundwater levels measured during the geotechnical investigation is a “snapshot” of the groundwater level and does not account for potential fluctuations in groundwater level due to seasonal and tidal variations.

Liquefaction and Settlement

Liquefaction occurs when vibrations or water pressure within a mass of soil cause the soil particles to lose contact with one another. As a result, the soil behaves like a liquid, has an inability to support weight, and can flow down very gentle slopes. This condition is usually temporary and is most often caused by an earthquake vibrating water-saturated fill or unconsolidated soil. Soils that are most susceptible to liquefaction are clean, loose, saturated, and uniformly graded fine-grained sands that lie below the groundwater table within approximately 50 feet below ground surface. Clayey (cohesive) soils or soils which possess clay particles in excess of 20 percent are generally not considered to be susceptible to liquefaction, nor are those soils which are above the historic static groundwater table. Lateral spreading refers to spreading of soils in a rapid fluid-like flow movement similar to water.

As shown in GPU FEIR Figure 5.6-2, *Liquefaction Zones*, a majority of the City is mapped by the California Geological Survey as being potentially susceptible to liquefaction. The Geotechnical Report identifies that the Project site has a low liquefaction potential due to the underlying soil composition. Onsite soils include clayey soils to a depth of approximately 30 feet below the existing ground surface. Underlying soils are mixed soil with interbedded dense to very dense silty sand, poorly-graded sands, and lean clays. Due to the density of cohesive nature of the soils in the upper 50 feet, liquefaction potential is considered low even though the depth of groundwater is in the range of 12 to 16 feet bgs with a historic high of 5 feet bgs (Appendix G).

Settlement is the vertical compression of soil due to load-bearing stress. The GPU FEIR describes that potential hazard posed by seismic settlement and/or collapse in the City is considered moderate based on the compressibility of the underlying alluvial soils and the presence of shallow groundwater. Strong ground shaking can cause settlement of alluvial soils and artificial fills if they are not adequately compacted. Based on the onsite soils and groundwater conditions, the Geotechnical Report determined that static and seismic settlement is a potential concern of the Project site. The seismic settlement potential is estimated to be at least 2 inches (Appendix G).

Lateral Spreading

Lateral spreading is a type of liquefaction induced ground failure associated with the lateral displacement of surficial blocks of sediment resulting from liquefaction in a subsurface layer. Once liquefaction transforms the subsurface layer into a fluid mass, gravity plus the earthquake inertial forces may cause the mass to move downslope towards a free face (such as a river channel or an embankment). Lateral spreading may cause large horizontal displacements and such movement typically damages pipelines, utilities, bridges, and structures. As described previously, the Project site contains relatively dense clayey layers that are not susceptible to liquefaction (Appendix G).

Subsidence

Ground subsidence is the gradual settling or sinking of the ground surface with little or no horizontal movement. Subsidence typically occurs in areas with subterranean oil, gas, or groundwater, and is most commonly associated with overdraft of groundwater. Effects of subsidence include fissures, sinkholes, depressions, and disruption of surface drainage. The GPU FEIR describes that there is no pattern of lowering

of the ground surface in Santa Ana and the risk of subsidence due to overdraft is generally low, with areas along the margins of the Santa Ana River and Santiago Creek most susceptible. Additionally, as described in the General Plan Seismic Safety Element, the potential for area and focal ground subsidence due to earthquakes is relatively low in Santa Ana. The Project site is not located within or near a potential subsidence area, as shown in Exhibit 4, *Potential Subsidence Areas*, in the General Plan Seismic Safety Element.

Landslides

Landslides and other slope failures are secondary seismic effects that are common during or soon after earthquakes. Areas that are most susceptible to earthquake induced landslides are steep slopes underlain by loose, weak soils, and areas on or adjacent to existing landslide deposits.

The Geotechnical Report describes that the existing elevation of the Project site is approximately 34 feet above mean sea level (msl) and that the site is not located within a mapped area considered potentially susceptible to seismically induced slope instability (Appendix G). In addition, the Project site is not adjacent to any hills or slopes that could be subject to a landslide.

Expansive Soils

Expansive soils are soils containing water-absorbing minerals that expand as they take in water. These soils can damage buildings due to the force they exert as they expand. Expansive soils contain certain types of clay minerals that shrink or swell as the moisture content changes; the shrinking or swelling can shift, crack, or break structures built on such soils. Arid or semiarid areas with seasonal changes of soil moisture experience a much higher frequency of problems from expansive soils than areas with higher rainfall and more constant soil moisture. The proposed Project is in a semiarid region with marked seasonal changes in precipitation; most rain falls in winter, and there is a long dry season in summer and autumn. Therefore, the City's climate is such that a relatively high incidence of soil expansion is expected where soils contain the requisite clay minerals.

The GPU FEIR describes that due to the presence of alluvial materials in the City, there is some potential for expansive soils throughout Santa Ana and that expansive soils testing prior to grading is required as part of a soil engineering report, per the CBC and the City of Santa Ana development and permitting requirements.

Expansion index testing was conducted on soil samples collected from the Project site, which determined that moderately to highly expansive soils are present onsite (Appendix G).

Paleontological Resources

Paleontological resources include any fossilized remains, traces, or imprints of organisms preserved in or on the earth's crust that are of paleontological interest and that provide information about the history of life on earth, except that the term does not include any materials associated with an archaeological resource or any cultural item defined as Native American human remains. Significant paleontological resources are defined as fossils or assemblages of fossils that are unique, unusual, rare, uncommon, or important to define a particular time frame or geologic strata, or that add to an existing body of knowledge in specific areas, in local formations, or regionally.

As described in the GPU FEIR, the City of Santa Ana is underlain by Holocene and Pleistocene alluvial deposits and early Pleistocene marine deposits. Below these deposits lie Miocene and late Cretaceous sedimentary rocks. Pleistocene sediments have a rich fossil history in Southern California. The most common Pleistocene terrestrial mammal fossils include the bones of mammoth, horse, bison, camel, and small mammals, but other taxa, including lion, cheetah, wolf, antelope, peccary, mastodon, capybara, and giant ground sloth, have been reported, as well as birds, amphibians, and reptiles such as frogs, salamanders, snakes, and

turtles. In addition to illuminating the striking differences between southern California in the Pleistocene and today, this abundant fossil record has been vital in studies of extinction, ecology, and climate change. Throughout Orange County, extinct Pleistocene animals are well known from alluvial sediments.

The Natural History Museum of Los Angeles County database search completed for the proposed Project identified records of six recorded fossil localities in the general Project vicinity; however, none of these were documented in the Project site. The localities in the vicinity are associated with units mapped as uplifted older (Pleistocene) marine terraces (Qop).

The Project site is underlain by Holocene-aged axial channel deposits (Qya) dating from the Holocene to perhaps the Late Pleistocene era. These soils are assigned a low paleontological resource sensitivity due to their relatively recent age. The Geotechnical Report details that only alluvium was encountered to a depth of 70 feet. However, a sedimentological shift was noted between 27 to 32 feet bgs. It is not known if the sedimentological shift indicates a presence of fossil-bearing older alluvium. Based on these findings, the Paleontological Resources Assessment determined that there is a low potential for paleontological resources near the ground surface, and that potential increases with depth.

5.4.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

GEO-1 Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

- GEO-1i 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 4),
- GEO-1ii Strong seismic ground shaking,
- GEO-1iii Seismic-related ground failure, including liquefaction;
- GEO-1iv Landslides;
- GEO-2 Result in substantial soil erosion or the loss of topsoil;
- GEO-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;
- GEO-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;
- GEO-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; or
- GEO-6 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

5.4.5 METHODOLOGY

A Geotechnical Report was prepared for the Project site (Appendix G), which included field exploration, exploratory soil borings, acquisition of representative soil samples, laboratory testing, engineering analysis, and pertinent geological literature review. The laboratory testing determined the characteristics of the geology and soils that underlie the site. These subsurface conditions were then analyzed to identify potential significant impacts resulting from Project construction and operation in relation to geology and soils.

In determining whether a geotechnical related impact would result from the proposed Project, the analysis includes consideration of state law, including the California Building Code that is integrated into the City's Municipal Code, and implemented/verified during Project permitting approvals. In general, existing state law, building codes, and municipal codes that are implemented by the approving agency provide for an adequate level of safety or reduction of potential effects such that projects developed and operated to code reduce potential of impacts.

In determining whether a paleontological related impact would result from the proposed Project, the analysis includes consideration of the types of soils that exist on the Project site, the paleontological sensitivity of those soils, the past disturbance on the site, and the proposed excavation. Existing conditions and sensitivity were also determined through a fossil locality search conducted at the Natural History Museum of Los Angeles County on August 14, 2022. The purpose of the locality search was to identify previously recorded or otherwise known fossil localities in or adjacent to the Project area. The analysis combines these factors to identify the potential of Project construction to impact any unknown paleontological resources on the site.

5.4.6 ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR addressed impacts related to geology and soils in Chapter 5.6. The GPU FEIR determined that the location and underlying geology of the City make it likely to experience seismic hazards, including strong seismic ground shaking, and secondary hazards, such as liquefaction. No active surface faults are mapped and zoned under the Alquist-Priolo Earthquake Fault Zoning Act in the City. 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. With compliance to CBC regulations, impacts related to seismic hazards and geologic conditions including earthquakes, liquefaction, lateral spreading, subsidence, and expansive soils would be less than significant.

No significant impacts would occur as a result of slope stability hazards or installation of septic tanks (not proposed). The City of Santa Ana is mostly flat; therefore, landslides and debris flow would not affect the area. Additionally, the City prohibits the installation of septic tanks, and all future development would require connection to the City's sewer system.

Unstable geologic unit or soils conditions, including soil erosion, could result from development of the GPU. Mandatory compliance with existing regulations, including the preparation and submittal of a SWPPP and a soil engineering evaluation, would reduce soil erosion impacts to a less than significant level.

The GPU FEIR determined that grading and construction activities of undeveloped areas or redevelopment that require intensive soil excavation may potentially disturb paleontological resources. Therefore, the GPU FEIR included Mitigation Measures GEO-1 through GEO-3, which prescribe requirements for monitoring based on the sensitivity of sites for paleontological resources. Under GEO-1, areas that range from high to low sensitivity are required to prepare a Paleontological Resources Monitoring and Mitigation Plan. With adherence to Mitigation Measures GEO-1 through GEO-3, impacts to paleontological resources would be less than significant.

Proposed Specific Plan Project

IMPACT GEO-1i: THE PROJECT WOULD NOT 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 EARTHQUAKE FAULT.

No Impact. As described previously, the Project site is not located within an Alquist-Priolo Earthquake Fault Zone and no active faults are known/recorded to cross the site. The closest known active faults are associated with the San Joaquin Hills Fault, located approximately 1.3 miles northeast of the site; and the Newport-Inglewood Fault Zone, approximately 4.1 miles southwest of the site (Appendix G). The San Joaquin Hills fault does not rupture at the ground surface. Because no known faults exist on the site, the proposed Project would not expose people or structures to potential substantial adverse effects from rupture of a known earthquake fault that is delineated on an Alquist-Priolo Earthquake Fault Zoning Map or other evidence of a fault, and impacts would not occur. Therefore, impacts related to Project buildout of the site would be consistent with the impact conclusions set forth in the GPU FEIR, which determined that impacts related to surface rupture of a fault would be less than significant.

IMPACT GEO-1ii: THE PROJECT WOULD NOT DIRECTLY OR INDIRECTLY CAUSE POTENTIAL SUBSTANTIAL ADVERSE EFFECTS, INCLUDING THE RISK OF LOSS, INJURY, OR DEATH INVOLVING STRONG SEISMIC GROUND SHAKING.

Less than Significant Impact. The proposed Project would add residents, employees, and development within the Project site. The proposed Project site is within a seismically active region, with numerous faults capable of producing significant ground motions. The closest known active faults are associated with the San Joaquin Hills Fault, located approximately 1.3 miles northeast of the site; and the Newport-Inglewood Fault Zone, approximately 4.1 miles southwest of the site (Appendix G). Therefore, Project implementation could subject people and structures to hazards from ground shaking. However, seismic shaking is a risk throughout Southern California, and the Project site is not at greater risk of seismic activity or impacts as compared to other areas within the region.

The CBC includes provisions to reduce impacts caused by major structural failures or loss of life resulting from earthquakes or other geologic hazards. For example, Chapter 16 of the CBC contains requirements for design and construction of structures to resist loads, including earthquake loads. The CBC provides procedures for earthquake resistant structural design that include considerations for onsite soil conditions, occupancy, and the configuration of the structure including the structural system and height.

As described previously, the City of Santa Ana has adopted the CBC as part of the Municipal Code Chapter 8, Article 2, Division 1, which regulates all building and construction projects within the City and implements a minimum standard for building design and construction that includes specific requirements for seismic safety, excavation, foundations, retaining walls and site demolition. Structures built in the City are required to be built in compliance with the CBC. The proposed Project would be required to adhere to the provisions of the CBC as part of the building plan check and development review process. Compliance with the requirements of the CBC for structural safety would reduce hazards from strong seismic ground shaking. Because the proposed Project would be required to be constructed in compliance with the CBC and the City's Municipal Code, which would be verified through the City's plan check and permitting process and is included as PPP GEO-1, the proposed Project would result in a less than significant impact related to strong seismic ground shaking. Therefore, impacts related to Project buildout of the site would be consistent with the impact

conclusions set forth in the GPU FEIR, which determined that impacts related to ground shaking would be less than significant.

IMPACT GEO-1iii: THE PROJECT WOULD NOT DIRECTLY OR INDIRECTLY CAUSE POTENTIAL SUBSTANTIAL ADVERSE EFFECTS, INCLUDING THE RISK OF LOSS, INJURY, OR DEATH INVOLVING SEISMIC-RELATED GROUND FAILURE, INCLUDING LIQUEFACTION.

Less than Significant Impact. As described by the Geotechnical Report (Appendix G), the Project site consists of subsurface soils that consist of clayey soils that exist to a depth of approximately 30 feet bgs. Underlying soils include dense to very dense silty sand, poorly-graded sands, and lean clays. The highest historic groundwater on the Project site was encountered at approximately 5 feet bgs. Groundwater was encountered within onsite borings at depths between 12 feet and 16 feet bgs. However, due to the nature of the soils in the upper 50 feet, the Geotechnical Report determined that the liquefaction potential is considered low.

As described previously, structures built in the City are required to be built in compliance with the CBC, as included in the City's Municipal Code as Chapter 8, Article 2, Division 1 (and herein as PPP GEO-1), which regulates all building and construction projects within the City and implements a minimum standard for building design and construction that includes specific requirements for seismic safety, excavation, foundations, retaining walls, and site demolition. Compliance with the CBC (included as PPP GEO-1) would require proper construction of building footings and foundations so that it would withstand the effects of potential ground movement, including liquefaction and settlement. The CBC also includes provisions to reduce impacts caused by potential major structural failures or loss of life resulting from geologic hazards. For example, the CBC requires that a California Certified Engineering Geologist or California-licensed civil engineer provide site-specific engineering data to demonstrate the satisfactory performance of proposed structures. The City requires the Project specific engineering design recommendations be incorporated into grading plans and building specifications as a condition of construction permit approval. Therefore, the development of the proposed Project would be required to conform to the seismic design parameters of the CBC, as included as PPP GEO-1, which are reviewed by the City for appropriate inclusion as part of the building plan check and development review process. Compliance with the requirements of the CBC and City's Municipal Code for structural safety (included as PPP GEO-1) would reduce hazards from seismic-related ground failure, including liquefaction and settlement to a less than significant level. Therefore, impacts related to Project buildout of the site would be consistent with the impact conclusions set forth in the GPU FEIR, which determined that impacts related to seismic-related ground failure would be less than significant.

IMPACT GEO-1iv: THE PROJECT WOULD NOT DIRECTLY OR INDIRECTLY CAUSE POTENTIAL SUBSTANTIAL ADVERSE EFFECTS, INCLUDING THE RISK OF LOSS, INJURY, OR DEATH INVOLVING LANDSLIDES.

No Impact. The proposed Project site is located in a seismically active region subject to strong ground shaking. However, as described previously, the Geotechnical Report describes that the Project site is generally level and no hills or slopes are adjacent to the site. In addition, the site is not within a seismically induced landslide hazard zone area and is not considered potentially susceptible to seismically-induced slope instability. Thus, the Project site is not located within or adjacent to an earthquake-induced landslide area, and the proposed Project would not expose people or structures to substantial adverse effects involving landslides, and impacts related to landslides would not occur. Therefore, impacts related to Project buildout of the site would be consistent with the impact conclusions set forth in the GPU FEIR, which determined that impacts related to landslides would be less than significant.

IMPACT GEO-2: THE PROJECT WOULD NOT RESULT IN SUBSTANTIAL SOIL EROSION OR THE LOSS OF TOPSOIL.

Less than Significant Impact. Construction of the proposed Project has the potential to contribute to soil erosion and the loss of topsoil. Grading and excavation activities that would be required for the proposed Project would expose and loosen topsoil, which could be eroded by wind or water.

The City's Municipal Code Chapter 18-156, Control of Urban Runoff implements the requirements of the Orange County Municipal NPDES Storm Water Permit (Order No. R8-2016-0001). All projects in the City are required to conform to the permit requirements, which includes installation of BMPs in compliance with the NPDES permit, which establishes minimum stormwater management requirements and controls that are required to be implemented for the proposed Project. To reduce the potential for soil erosion and the loss of topsoil, a Stormwater Pollution Prevention Plan (SWPPP) is required by the Regional Water Quality Control Board (RWQCB) regulations to be developed by a QSD (Qualified SWPPP Developer). The SWPPP is required to address site-specific conditions related to specific grading and construction activities. The SWPPP is required to identify potential sources of erosion and sedimentation loss of topsoil during construction, identify erosion control BMPs to reduce or eliminate the erosion and loss of topsoil, such as use of silt fencing, fiber rolls, or gravel bags, stabilized construction entrance/exit, hydroseeding. With compliance with the City's Municipal Code, RWQCB requirements, and the BMPs in the SWPPP that is required to be prepared to implement the proposed Project, construction impacts related to erosion and loss of topsoil would be less than significant.

In addition, the proposed Project includes installation of landscaping, such that during operation of the proposed Project substantial areas of loose topsoil that could erode would not exist. In addition, as described in Section 5.7, *Hydrology and Water Quality*, the onsite drainage features that would be installed by the proposed Project have been designed to slow, filter, and slowly discharge stormwater into the offsite drainage system, which would also reduce the potential for stormwater to erode topsoil during Project operations. Furthermore, implementation of the proposed Project requires City approval of a site-specific Water Quality Management Plan (WQMP), which would ensure that the City's Municipal Code, RWQCB requirements, and appropriate operational BMPs would be implemented to minimize or eliminate the potential for soil erosion or loss of topsoil to occur. As a result, potential impacts related to substantial soil erosion or loss of topsoil would be less than significant. Therefore, impacts related to Project buildout of the site would be consistent with the impact conclusions set forth in the GPU FEIR, which determined that impacts related to erosion or the loss of topsoil would be less than significant.

IMPACT GEO-3: THE PROJECT WOULD NOT BE LOCATED ON A GEOLOGIC UNIT OR SOIL THAT IS UNSTABLE, OR THAT WOULD BECOME UNSTABLE AS A RESULT OF THE PROJECT, AND POTENTIALLY RESULT IN ON- OR OFF-SITE LANDSLIDE, LATERAL SPREADING, SUBSIDENCE, LIQUEFACTION OR COLLAPSE.

Less than Significant Impact with Mitigation Incorporated. As described previously, the elevation of the site is approximately 34 feet above msl and the site is not located on or adjacent to a hillside or slope. Based on the relatively flat topography of the site, lack of a free face nearby and low liquefaction potential, the Geotechnical Report determined that the potential for lateral spreading on the site is low (Appendix G). Thus, impacts related to lateral spreading would be less than significant. Also, as described previously, impacts related to landslides would not occur.

However, as detailed in the Geotechnical Report (Appendix G), groundwater has been encountered at the site at between 5 and 16 feet bgs and excavations during Project construction are likely to encounter groundwater. The Geotechnical Report identified that excavations within potentially collapsible wet soils may need to be stabilized; and stabilization may consist of placement of a granular working mat consisting

of geogrid and coarse gravel or subexcavation and replacement with dried soil. All Project excavations would comply with the current California and Federal Occupational Safety and Health Administration (CALOSHA) requirements (29 CFR-Part 1926, Subpart P), as applicable and included in Project permitting. In addition, Mitigation Measure GEO-1 has been included to require that the proposed Project comply with a final design-level geotechnical report that must be completed in compliance with the current CBC requirements, and prepared to the satisfaction of the City's Building and Safety Division. Also, Mitigation Measure GEO-2 is included to ensure that geotechnical recommendations regarding groundwater induced unstable soils are implemented pursuant to existing CBC construction measures.

The Geotechnical Report identified that seismically-induced settlement onsite could be 2 inches or less; and differential seismic settlement is estimated to be at least 2 inches (Appendix G). The Geotechnical Report recommends that the Project implement CBC seismic structural design criteria that are specific to the onsite soils, including excavation and recompaction of soils, and development of foundation systems to reduce potential settlement. The City requires the Project-specific engineering design recommendations be incorporated into grading plans and building specifications as a condition of construction permit approval. These recommendations have been incorporated into Mitigation Measures GEO-1 and GEO-2.

Furthermore, the CBC, as currently adopted in the City's Municipal Code Chapter 8, Article 2, Division 1, requires that a California Certified Engineering Geologist or California-licensed civil engineer provide site-specific engineering data for the proposed structures, which are reviewed by the City for appropriate inclusion as part of the building plan check and development review process. Compliance with the requirements of the CBC and City's Municipal Code for structural safety is included as PPP GEO-1 and would also reduce potential impacts to a less than significant level. Therefore, due to the need for mitigation to ensure implementation of existing CBC measures, impacts related to Project buildout of the site would be slightly greater than the impact conclusions set forth in the GPU FEIR, which determined that impacts related to unstable soils would be less than significant with implementation of existing regulations.

IMPACT GEO-4: THE PROJECT WOULD BE LOCATED ON EXPANSIVE SOIL, AS DEFINED IN TABLE 18-1-B OF THE UNIFORM BUILDING CODE (1994) BUT WOULD NOT CREATE SUBSTANTIAL RISKS TO LIFE OR PROPERTY.

Less than Significant Impact with Mitigation Incorporated. The Project site contains lean and fat clays, and silty sand and poorly-graded sands with interbeds of clays, which have been tested and determined to have a medium to high potential for expansion due to the clay content (Appendix G). The clayey soils are present onsite from the ground surface to approximately 25 to 30 feet bgs. Therefore, the foundations of the buildings would be required to be designed to resist the expansion pressures. The Geotechnical Report describes that excavation and recompaction of soils, and design of foundation systems would reduce potential effects of expansive soils to a less than significant level.

Prior to approval of construction, an engineering level design geotechnical report is required to be prepared and submitted to the City that details the project designs that have been included to address potential geotechnical and soil conditions pursuant to the CBC requirements that are included in the City's Municipal Code Chapter 8, Article 2, Division 1, and implemented by Mitigation Measures GEO-1 and GEO-2. Compliance with the CBC, through design level geotechnical specifications that would be reviewed and approved by the City Building and Safety Division would ensure that potential impacts related to expansive soils would be less than significant. Therefore, due to the need for mitigation to ensure implementation of existing CBC measures, impacts related to Project buildout of the site would be slightly greater than the impact conclusions set forth in the GPU FEIR, which determined that impacts related to expansive soil would be less than significant with implementation of existing regulations.

IMPACT GEO-5: THE PROJECT WOULD NOT RESULT IN SOILS INCAPABLE OF ADEQUATELY SUPPORTING THE USE OF SEPTIC TANKS OR ALTERNATIVE WASTEWATER DISPOSAL SYSTEMS WHERE SEWERS ARE NOT AVAILABLE FOR DISPOSAL OF WASTEWATER.

No Impact. The Project site is currently connected to the City's sewer system. As detailed in Chapter 3.0, *Project Description*, the Project would install a new onsite sewer system that would connect to the existing 78-inch sewer in Sunflower Avenue. The proposed Project would not use septic tanks or alternative wastewater disposal systems. As a result, no impacts related to septic tanks or alternative wastewater disposal systems would occur from implementation of the proposed Project. Therefore, impacts related to Project buildout of the site would be less than the impact conclusions set forth in the GPU FEIR, which determined that impacts related to septic tanks would be less than significant.

IMPACT GEO-6: THE PROJECT WOULD NOT DIRECTLY OR INDIRECTLY DESTROY A UNIQUE PALEONTOLOGICAL RESOURCE OR SITE OR UNIQUE GEOLOGIC FEATURE.

Less than Significant Impact with Mitigation Incorporated. As described in Appendix H, the Project site is underlain by Holocene-aged axial channel deposits, and due to the young age of the onsite soils, it is unlikely that excavation at the surface would impact fossil resources. However, Pleistocene age alluvium may exist below the younger axial channel deposits which could yield fossils. Throughout Orange County, extinct Pleistocene animals are well known from alluvial sediments. Thus, excavation and grading during construction of the proposed Project has the potential to impact paleontological resources. As such, impacts to paleontological resources within the Project site are potentially significant. Therefore, GPU FEIR Mitigation Measures GEO-2 and GEO-3 would be required to confirm onsite sediments and provide measures in the case that a fossil is discovered onsite. In addition, Mitigation Measures PALEO-1 through PALEO-3 have been included to retain a qualified paleontologist prior to the start of excavation, provide paleontological resources sensitivity training, and monitor the site for excavations below 20 feet bgs. Mitigation Measure PALEO-4 has been included to identify and catalog any significant fossils and Mitigation Measure PALEO-5 has been included to prepare a Paleontological Resources Monitoring Report that summarizes the findings. Thus, with implementation of GPU FEIR and Project-specific mitigation measures, impacts related to paleontological resources would be less than significant. Therefore, impacts related to Project buildout of the site would be consistent with the impact conclusions set forth in the GPU FEIR, which determined that impacts related to paleontological resources would be less than significant with the implementation of mitigation.

5.4.7 CUMULATIVE IMPACTS

The potential cumulative exposure of people or structures to unstable geologic units and/or expansive soils that have the potential to result in onsite or offsite landslides, lateral spreading, subsidence, liquefaction, movement, or collapse tend to be localized in nature, as each site-specific development has unique geologic considerations. For geology and soils, the cumulative study area consists of the area that could be affected by proposed Project activities and the areas affected by other projects whose activities could directly or indirectly affect the geology and soils of the project site. The cumulative impacts are evaluated in light of development projections in the recent City General Plan update and GPU FEIR.

Site-specific development projects within Santa Ana and adjacent areas within the City of Costa Mesa are subject to uniform site-development policies and construction standards imposed by the Cities that are based on the state requirements in the CBC and site-specific geotechnical studies prepared to define site-specific conditions that might pose a risk to safety, such as those described previously for the proposed Project. While increases in the number of people and structures subject to unstable geologic units and soils would increase

in the proposed Project and with cumulative development, given the application of CBC requirements by the City through the construction permitting process, the cumulative effects would be less than significant.

Paleontological Resources: Paleontological Resources: The geographic area of potential cumulative impacts related to paleontological resources includes areas that are underlain by similar geologic units from the same time period, which includes the Orange County region. A cumulative impact could occur if development projects incrementally result in the loss of the same types of unique paleontological resources. As detailed in the City's GPU FEIR, the City, including the Project site, vary in paleontological sensitivity from low to high sensitivity increasing with depth. However, with incorporation of the GPU FEIR Mitigation Measures GEO-1 through GEO-3 and Project specific Mitigation Measures PALEO-1 through PALEO-5, which require paleontological monitoring and provides procedures for fossil recovery which would preserve the quality and integrity of these resources, avoid them when possible, and salvage and preserve them if avoidance is not possible. These measures would reduce the potential for the proposed Project to result in cumulatively considerable impacts to a less than significant level. Therefore, impacts would be less than cumulatively significant.

5.4.8 EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS, OR POLICIES

PPP GEO-1: CBC Compliance. The proposed Project is required to comply with the California Building Standards Code (CBC) as included in the City's Municipal Code as Chapter 8, Article 2, Division 1, to preclude significant adverse effects associated with seismic and soils hazards. As part of CBC compliance, CBC related and geologist and/or civil engineer specifications for the proposed Project shall be incorporated into grading plans and building specifications as a condition of construction permit approval.

5.4.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements, Impacts GEO-1 through GEO 2 would be less than significant.

Without mitigation, the following impacts would be potentially significant:

- Impact GEO-3: Geologic unstable units or soils that could result in lateral spreading, subsidence, liquefaction, or collapse.
- Impact GEO-4: Expansive soils could result in impacts related to risks to life or property.
- Impact GEO-6: Direct or indirect impacts and cumulative impacts to paleontological resources.

5.4.10 MITIGATION MEASURES

GPU FEIR Mitigation Measures

GEO-1 High Sensitivity. Projects involving ground disturbances in previously undisturbed areas mapped as having "high" paleontological sensitivity shall be monitored by a qualified paleontological monitor on a full-time basis, under the supervision of the Qualified Paleontologist. Monitoring shall include inspection of exposed sedimentary units during active excavations within sensitive geologic sediments. The monitor shall have authority to temporarily divert activity away from exposed fossils to evaluate the significance of the find and, if the fossils are determined to be significant, professionally, and efficiently recover the fossil specimens and collect associated data. The paleontological monitor shall use field data forms to record pertinent location and geologic data, measure stratigraphic sections (if applicable), and collect appropriate sediment samples from any fossil localities.

Proposed Project Applicability: Mitigation Measure GEO-1 is not applicable to the proposed Project, as the site is not located within an area of high sensitivity.

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 (see Figure 5.6-3), 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.

Proposed Project Applicability: Mitigation Measure GEO-2 is applicable to the proposed and will be included in the Mitigation Monitoring and Reporting Program (MMRP) for the proposed Project.

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 (NHMLA). The repository shall be identified, and a curatorial arrangement shall be signed, prior to collection of the fossils.

Proposed Project Applicability: Mitigation Measure GEO-3 is applicable to the proposed Project and will be included in the MMRP for the proposed Project.

Proposed Specific Plan Project Mitigation Measures

MM GEO-1: Incorporation of and Compliance with a Design Level Geotechnical Report. A final design level geotechnical report that complies with all applicable state and local code requirements shall be prepared for each Project structure by a California licensed qualified geotechnical engineer consistent with the California Building Code and City of Santa Ana requirements applicable at the time of grading/construction and shall include recommendations related to site grading and earthwork, fill materials, compaction, foundations, and other structural elements. The report recommendations shall be included in construction specifications and permits; and confirmed through onsite inspections.

MM GEO-2: Implementation of Geotechnical Recommendations for Groundwater and Expansive Soils. Project plans, grading specifications, and construction permitting shall incorporate site specific earthwork and ground improvement requirements related to groundwater saturated soils and expansive soils consistent with the California Building Code and City of Santa Ana requirements applicable at the time of grading/construction as stated in a design level geotechnical report and approved by the City’s Building and Safety Division. This shall include recommendations related to discovery of groundwater, wet soils, or unstable soils during grading, stabilization, dewatering, fill materials, and foundations.

MM PALEO-1: Retention of a Qualified Paleontologist. Project plans, grading specifications, and construction permitting shall ensure that prior to the start of excavation, the client shall retain a Qualified Paleontologist who meets the professional criteria established by the Society of Vertebrate Paleontology (SVP 2010) to oversee the implementation of all paleontological resources mitigation requirements for the proposed Project.

MM PALEO-2: Paleontological Resources Sensitivity Training. Project plans, grading specifications, and construction permitting shall ensure that prior to the start of excavations, the Qualified Paleontologist, or their designee, shall conduct paleontological resources awareness training for onsite personnel. The training session shall focus on how to identify paleontological resources that may be encountered during excavations and the procedures to be followed in the event of their discovery. The City shall ensure onsite personnel are made available for and attend the training and retain documentation demonstrating attendance.

MM PALEO-3: Paleontological Monitoring. Project plans, grading specifications, and construction permitting shall detail that paleontological resources monitoring shall be required for excavations below 20 feet below ground surface (bgs). Paleontological monitoring shall be conducted by a monitor who meets the professional criteria established by the Society of Vertebrate Paleontology working under the direct supervision of the Qualified Paleontologist. Monitoring can be reduced, or ceased entirely, if determined adequate by the Qualified Paleontologist.

Recommendations for reduction or cessation of monitoring will be based on a more accurate understanding of the lithologic character and age of the sediments exposed during excavation. If deeper excavations continue to encounter younger, Holocene alluvium, monitoring shall be reduced from full-time to part-time monitoring or weekly inspections. If the Qualified Paleontologist determines, based on the lithologic character of the sediments, that there is very little likelihood of impacting Pleistocene marine sediments, paleontological monitoring shall cease entirely.

The paleontological monitor shall collect any identifiable fossils encountered during the excavations. If onsite personnel discover potential fossils during excavations when a paleontological monitor is not present, they shall cease excavation within 50 feet of the discovery and contact the Qualified Paleontologist. Construction activities may resume after the discovery is assessed by the Qualified Paleontologist and appropriate treatment measures have been implemented.

MM PALEO-4: Paleontological Resources Treatment and Disposition. Project plans, grading specifications, and construction permitting shall require that significant fossils be prepared to the point of identification and cataloged. Significant fossils shall be curated at a public, non-profit institution with a research interest in the material and with retrievable storage, such as the Natural History Museum of Los Angeles County, if such an institution agrees to accept the fossils. If no institution accepts the fossil collection, then the fossils may be donated to a local museum, historical society, school, or other institution for educational purposes. Accompanying notes, reports, maps, and photographs shall also be filed with the final repository.

MM PALEO-5: Paleontological Resources Monitoring Report. Project plans, grading specifications, and construction permitting shall ensure that upon completion of the excavation phase of the Project, the Qualified Paleontologist shall prepare a report summarizing the results of the monitoring efforts. The report shall be submitted to the City to signify the satisfactory completion of required paleontological mitigation measures. If significant fossils are discovered, the report shall also be submitted to the appropriate repositories.

5.4.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Compliance with existing regulatory programs and implementation of GPU FEIR Mitigation Measures GEO-1, GEO-2, GEO-3, and PALEO-1 through PALEO-5 would reduce potential impacts associated with potential geotechnical hazards and unique paleontological resource impacts to a level that is less than

significant. Therefore, no significant unavoidable adverse impacts related to geology and soils and paleontological resources would occur.

REFERENCES

- City of Santa Ana General Plan Update. April 2022. Accessed: <https://www.santa-ana.org/general-plan-documents/>
- City of Santa Ana General Plan Update Final Recirculated Draft Program Environmental Impact Report - October 2021. Accessed: <https://www.santa-ana.org/general-plan-environmental-documents/>
- Preliminary Investigation Report Related Bristol Project. August 2022. Prepared by Group Delta Consultants, Inc. (Appendix G)
- Related Bristol, Santa Ana, California Paleontological Resources Assessment Report. January 2023. Prepared by ESA. (Appendix H)
- State Water Resources Control Board Construction Storm Water Program. Accessed: http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml

5.5 Greenhouse Gas Emissions

5.5.1 INTRODUCTION

This section evaluates the potential for implementation of the proposed Project to cumulatively contribute to greenhouse gas (GHG) emissions impacts. No single project is large enough to result in a measurable increase in global concentrations of GHG emissions; therefore, impacts of the proposed Project are considered on a cumulative basis. This evaluation is based on the methodology recommended by the South Coast Air Quality Management District (SCAQMD). This section also addresses the proposed Project's consistency with applicable plans, policies, and public agency regulations adopted for the purpose of reducing the emissions of GHGs. The analysis within this section is based on the following:

- *City of Santa Ana General Plan Update*
- *City of Santa Ana General Plan Update FEIR*
- *City of Santa Ana Municipal Code*
- *Greenhouse Gas Emissions Assessment, Appendix I*

5.5.2 REGULATORY SETTING

Federal GHG Endangerment Ruling

In *Massachusetts v. Environmental Protection Agency* 549 U.S. 497 (2007), decided on April 2, 2007, the United States Supreme Court (Supreme Court) found that four GHGs, including CO₂, are air pollutants subject to regulation under Section 202(a)(1) of the Clean Air Act (CAA). The Supreme Court held that the USEPA Administrator must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the USEPA Administrator signed two distinct findings regarding GHGs under section 202(a) of the CAA:

- **Endangerment Finding:** The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs— CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆—in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed in the section “Clean Vehicles” below. After a lengthy legal challenge, the Supreme Court declined to review an Appeals Court ruling that upheld the USEPA Administrator's findings.

Federal Clean Vehicle Requirements

Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the U.S. On April 1, 2010, the EPA, and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the U.S.

The first phase of the national program applied to passenger cars, light-duty trucks, and medium-duty (MD) passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of CO₂ per mile, equivalent to 35.5 miles per gallon (mpg) to cut CO₂ emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold. The USEPA and the NHTSA issued second-phase national standards for light-duty vehicles for model years 2017 through 2025 to achieve an equivalent to 54.5 mpg.

California Assembly Bill 1493 – Pavley

In 2002, the California legislature adopted regulations to reduce GHG emissions in the transportation sector. In September 2004, pursuant to AB 1493, the California Air Resources Board (CARB or Board) approved regulations to reduce GHG emissions from new motor vehicles beginning with the 2009 model year. In September 2009, CARB adopted amendments to the Pavley regulations to reduce GHG from 2009 to 2016. CARB, the U.S. Environmental Protection Agency (USEPA), and the U.S. Department of Transportation's National Highway Traffic and Safety Administration have coordinated efforts to develop fuel economy and GHG standards for model 2017-2025 vehicles. The GHG standards are incorporated into the "Low Emission Vehicle" Regulations.

California Executive Order S-3-05 – Statewide Emission Reduction Targets

Executive Order S-3-05 was established by Governor Arnold Schwarzenegger in June 2005. Executive Order S-3-05 establishes statewide emission reduction targets through the year 2050:

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

Assembly Bill 1279

Assembly Bill (AB) 1279 requires the state to achieve net zero GHG as soon as possible, but no later than 2045, and achieve and maintain net negative greenhouse gas emissions thereafter. The bill also requires California to reduce statewide GHG emissions by 85 percent compared to 1990 levels and directs the California Air Resources Board to work with relevant state agencies to achieve these goals.

California Assembly Bill 32 (AB 32), Global Warming Solutions Act of 2006 (Chapter 488, Statutes of 2006)

In 2006, the Legislature passed the California Global Warming Solutions Act of 2006 [Assembly Bill 32 (AB 32)], which created a comprehensive, multi-year program to reduce GHG emissions in California. AB 32 required CARB to develop a Scoping Plan that describes the approach California will take to reduce GHGs to achieve the goal of reducing emissions to 1990 levels by 2020. The Scoping Plan was first approved by the Board in 2008 and must be updated at least every five years. Since 2008, there have been two updates to the Scoping Plan. Each of the Scoping Plans have included a suite of policies to help the state achieve its GHG targets, in large part leveraging existing programs whose primary goal is to reduce harmful air pollution. The 2017 Scoping Plan identifies how the state can reach the 2030 climate target to reduce GHG emissions by 40 percent from 1990 levels, and substantially advance toward the 2050 climate goal to reduce GHG emissions by 80 percent below 1990 levels.

The AB 32 Scoping Plan also anticipates that local government actions will result in reduced GHG emissions because local governments have the primary authority to plan, zone, approve, and permit development to accommodate population growth and the changing needs of their jurisdictions. The Scoping Plan also relies on the requirements of Senate Bill 375 (discussed below) to align local land use and transportation planning for achieving GHG reductions.

The Scoping Plan must be updated every five years to evaluate AB 32 policies and ensure that California is on track to achieve the GHG reduction goals. On December 15, 2022, CARB adopted the 2022 Scoping Plan. The 2022 Scoping Plan builds on the previous Scoping Plans as well as the requirements set forth by AB 1279, which directs the state to become carbon neutral no later than 2045. To achieve this statutory objective, the 2022 Scoping Plan lays out how California can reduce GHG emissions by 85 percent below 1990 levels and achieve carbon neutrality by 2045. The Scoping Plan scenario to do this is to “deploy a broad portfolio of existing and emerging fossil fuel alternatives and clean technologies, and align with statutes, Executive Orders, Board direction, and direction from the governor.” The 2022 Scoping Plan sets one of the most aggressive approaches to reach carbon neutrality in the world.

Senate Bill 375

In August 2008, the legislature passed, and on September 30, 2008, then Governor Schwarzenegger signed, SB 375 (Steinberg), which addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. Regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035, as determined by CARB, are required to consider the emission reductions associated with vehicle emission standards (see SB 1493), the composition of fuels (see Executive Order S-1-07), and other CARB-approved measures to reduce GHG emissions. Regional metropolitan planning organizations (MPOs) will be responsible for preparing a Sustainable Communities Strategy (SCS) within their Regional Transportation Plan (RTP). The goal of the SCS is to establish a development plan for the region, which, after considering transportation measures and policies, will achieve, if feasible, the GHG reduction targets. If an SCS is unable to achieve the GHG reduction target, an MPO must prepare an Alternative Planning Strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies. SB 375 provides incentives for streamlining CEQA requirements by substantially reducing the requirements for “transit priority projects,” as specified in SB 375, and eliminating the analysis of the impacts of certain residential projects on global warming and the growth-inducing impacts of those projects when the projects are consistent with the SCS or Alternative Planning Strategy. On September 23, 2010, CARB adopted the SB 375 targets for the regional MPOs.

Executive Order B-30-15 – 2030 Statewide Emission Reduction Target

Executive Order B-30-15 was signed by then Governor Jerry Brown on April 29, 2015, establishing an interim statewide GHG reduction target of 40 percent below 1990 levels by 2030, which is necessary to guide regulatory policy and investments in California in the midterm, and put California on the most cost-effective path for long-term emission reductions. Under this Executive Order, all state agencies with jurisdiction over sources of GHG emissions are required to continue to develop and implement emissions reduction programs to reach the state’s 2050 target and attain a level of emissions necessary to avoid dangerous climate change. According to the Governor’s Office, this Executive Order is in line with the scientifically established levels needed in the United States to limit global warming below 2°C - the warming threshold at which scientists say there will likely be major climate disruptions such as super droughts and rising sea levels.

Senate Bill 32 (Chapter 249, Statutes of 2016)

Senate Bill 32 was signed on September 8, 2016 by then Governor Jerry Brown. SB 32 requires the state to reduce statewide GHG emissions to 40 percent below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15. The new legislation builds upon the AB 32 goal of 1990 levels by 2020 and provides an intermediate goal to achieving S-3-05, which sets a statewide GHG reduction target of 80 percent below 1990 levels by 2050. A related bill that was also approved in 2016, AB 197

(Chapter 250, Statutes of 2016) creates a legislative committee to oversee regulators to ensure that CARB is not only responsive to the Governor, but also the Legislature.

AB 398 – Extension of Cap-and-Trade Program to 2030 (Chapter 617, Statutes of 2017)

AB 398 was signed by then Governor Brown on July 25, 2017, and became effective immediately as urgency legislation. AB 398, among other things, extended the cap-and-trade program through 2030.

Senate Bill 97 (Chapter 185, Statutes of 2007)

SB 97 (Health and Safety Code Section 21083.5) was adopted in 2007 and required the Office of Planning and Research to prepare amendments to the CEQA Guidelines for the mitigation of GHG impacts. The amendments became effective on March 18, 2010. The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. A new section, CEQA Guidelines Section 15064.4, was added to assist agencies in determining the significance of GHG emissions. The CEQA Section gives discretion to the lead agency whether to: (1) use a model of methodology to quantify GHG emissions resulting from a project, and which model or methodology to use; or (2) rely on a qualitative analysis or performance-based standards. CEQA does not provide guidance to determine whether the project's estimated GHG emissions are significant or cumulatively considerable.

Also amended were CEQA Guidelines Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts respectively. However, GHG mitigation measures are referenced in general terms, and no specific measures are identified. Additionally, the revision to the cumulative impact discussion requirement (Section 15130) simply directs agencies to analyze GHG emissions in an EIR when a project's incremental contribution of emissions may be cumulatively considerable, however it does not answer the question of when emissions are cumulatively considerable.

Section 15183.5 permits programmatic GHG analysis and later project-specific tiering, as well as the preparation of Greenhouse Gas Reduction Plans. Compliance with such plans can support a determination that a project's cumulative effect is not cumulatively considerable, according to proposed Section 15183.5(b).

CARB Advanced Clean Truck Regulation

CARB adopted the Advanced Clean Truck Regulation in June 2020 requiring truck manufacturers to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024. By 2045, every new truck sold in California is required to be zero-emission. This rule directly addresses disproportionate risks and health and pollution burdens and puts California on the path for an all zero-emission short-haul drayage fleet in ports and railyards by 2035, and zero-emission "last-mile" delivery trucks and vans by 2040. The Advanced Clean Truck Regulation accelerates the transition of zero-emission medium-and heavy-duty vehicles from Class 2b to Class 8. The regulation has two components including a manufacturer sales requirement, and a reporting requirement:

- **Zero-Emission Truck Sales:** Manufacturers who certify Class 2b through 8 chassis or complete vehicles with combustion engines are required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales need to be 55 percent of Class 2b – 3 truck sales, 75 percent of Class 4 – 8 straight truck sales, and 40 percent of truck tractor sales.

Company and Fleet Reporting: Large employers including retailers, manufacturers, brokers and others would be required to report information about shipments and shuttle services. Fleet owners, with 50 or more trucks, would be required to report about their existing fleet operations. This information

would help identify future strategies to ensure that fleets purchase available zero-emission trucks and place them in service where suitable to meet their needs.

CARB Advanced Clean Fleets Regulation

CARB adopted the Advanced Clean Fleets Regulation in April 2023 which requires fleet owners operating vehicles for private services such as last-mile delivery and federal fleets, along with state and local government fleets to begin their transition to zero-emission vehicles in 2024. In addition, drayage trucks are required to be zero-emissions by 2035, work trucks and day cab tractors must be zero-emission by 2039, and sleeper cab tractors and specialty vehicles must be zero-emission by 2042. The Advanced Clean Fleets rule includes an end to combustion truck sales in 2036.

Title 24 Energy Efficiency Standards and California Green Building Standards

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code (CALGreen) is updated every three years. The most recent update was the 2022 California Green Building Code Standards which became effective on January 1, 2023.

The 2022 CALGreen standards that reduce GHG emissions and are applicable to the proposed Project include, but are not limited to, the following:

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5 percent of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).
- EV charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106. 5.3.3 (5.106.5.3). Additionally, Table 5.106.5.4.1 specifies requirements for the installation of raceway conduit and panel power requirements for medium- and heavy-duty electric vehicle supply equipment for warehouses, grocery stores, and retail stores.
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight, and glare ratings per Table 5.106.8 (5.106.8).
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).
- Excavated soil and land clearing debris. 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).

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

The CALGreen Building Standards Code has been adopted by the City of Santa Ana by reference in Municipal Code Section 8-3000.

City of Santa Ana General Plan

The City of Santa Ana General Plan Update Conservation Element and Mobility Element include goals, policies, and objectives that support the reduction of GHGs. The existing General Plan Update goals, policies, and objectives relevant to the proposed Project include:

Mobility Element

- 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.

- POLICY M-1.8** Consider air and water quality, noise reduction, neighborhood character, and street-level aesthetics when making improvements to travelways.
- POLICY M-5.5** Encourage the use of alternative fuel vehicles and mobility technologies through the installation of supporting infrastructure.

Conservation Element

- GOAL CN-1:** Protect air resources, improve regional and local air quality, and minimize the impacts of climate change.
- 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.
- POLICY CN-1.18** 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.
- 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.
- 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** Promote energy-efficient development patterns by clustering mixed use developments and compatible uses adjacent to public transportation.
- POLICY CN-3.4** Encourage site planning and subdivision design that incorporates the use of renewable energy systems.
- 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.

City of Santa Ana Climate Action Plan

The City of Santa Ana adopted a CAP in December 2015 with the goal of reducing carbon emissions and energy use for the community. The CAP includes GHG emissions targets that are consistent with the reduction targets of the state of California and presents a number of strategies for the City to meet the targets. These reduction measures address emissions in five sectors: transportation and land use, energy, solid waste, water, and wastewater. The CAP measures that are relevant to the proposed Project include the following:

Transportation and Land Use Measures

- Development of Local Retail Service Nodes. Development that provides a mix of housing, commercial space, services, and job opportunities close to public transportation reduces dependency on cars and time spent in traffic and more closely links residents to jobs and services.

- Local Residential Nodes near Retail and Employment. Locate new residential development within retail and employment corridors to create a more optimal mix of land uses, which will be conducive to the increase use of transit.
- Local Residential Nodes near Residential and Retail Areas. Develop higher levels of mixed-use development, including employment, retail, and housing, to lower vehicle miles traveled (VMT) compared with areas where only one of these uses predominates.
- End-of-Trip Facilities in New Projects. End-of-trip facilities can include bike lockers, showers, and changing rooms, which can be used by cyclists and encourage cycling use.
- Design Guidelines for External Bike/Pedestrian/Transit Connectivity. The City plans to create guidelines that will mandate minimum levels of connectivity between various locations and the external transportation network.
- Community-wide Bike Sharing Stations. Development of bike-sharing stations at several locations throughout the City, including the Santa Ana Regional Transportation Center, major bus stop locations, City Hall, etc. These bicycles will help to extend trips possible through transit or directly substitute automobile trips.

Community Measures

- Property Assessed Clean Energy (PACE) Financing for Commercial and Residential Properties. PACE financing is available for energy and water saving measures as well as renewable energy generation. Energy efficiency projects financed through the program include air conditioning and heating systems, lighting upgrades, cool roofing materials, and solar installations.
- Southern California Edison (SCE) Small and Medium Business Direct Install. Energy efficiency contractors help small business identify ways to save electricity.
- Title 24 Energy Efficiency Standards. Minimum energy efficiency for new construction in California effective January 1, 2020.

Solid Waste, Water, and Wastewater Measures

- AB 341. Requires businesses that generate 4 cubic yards or more of commercial solid waste per week and multi-family residential dwellings of five units or more to recycle.
- Rainwater Harvesting. Collecting and re-using rainwater can minimize the amount of water flowing into storm drains, sewer systems, and local waterways and can reduce potable water consumption and electricity consumption from distribution.

The CAP describes that many of the commercial and employment corridors throughout the City have limited or no residential development. The CAP strategy envisions that the City would locate new residential development within these retail and employment corridors to create a more optimal mix of land uses. This mix of land uses could potentially divert some work, shopping, and eating trips from automobile use to bicycle and pedestrian travel; and it would result in reducing vehicle miles traveled. This higher level of mixed-use is also more conducive to the increased use of transit. Additionally, the CAP describes that the City will encourage new residential projects to locate within these commercial and employment corridors.

The CAP also describes development of bike sharing stations at several locations throughout the City including the Santa Ana Regional Transportation Center, major bus stop locations, City Hall, and other locations. These easily accessible bicycles can extend the trips possible through transit, or directly substitute for automobile trips on their own.

5.5.3 ENVIRONMENTAL SETTING

Gases that trap heat in the atmosphere are called GHGs. The major concern with GHGs is that increases in their concentrations are causing global climate change. Global climate change is a change in the average weather on Earth that can be measured by wind patterns, storms, precipitation, and temperature. Although there is disagreement as to the rate of global climate change and the extent of the impacts attributable to human activities, most in the scientific community agree that there is a direct link between increased emissions of GHGs and long-term global temperature increases.

The principal GHGs are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), perfluorocarbons (PFCs), and hydrofluorocarbons (HFCs). Because different GHGs have different warming potential, and CO₂ is the most common reference gas for climate change, GHG emissions are often quantified and reported as CO₂ equivalents (CO₂e). For example, SF₆ is a GHG commonly used in the utility industry as an insulating gas in circuit breakers and other electronic equipment. SF₆, while comprising a small fraction of the total GHGs emitted annually world-wide, is a much more potent GHG, with 22,800 times the global warming potential as CO₂. Therefore, an emission of one metric ton (MT) of SF₆ could be reported as an emission of 22,800 MT of CO₂e. Large emission sources are reported in million metric tons (MMT) of CO₂e. The principal GHGs are described below, along with their global warming potential.

Carbon dioxide: Carbon dioxide (CO₂) is an odorless, colorless, natural GHG. Carbon dioxide's global warming potential is 1. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic (manmade) sources are from burning coal, oil, natural gas, and wood.

Methane: Methane (CH₄) is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years, and its global warming potential is 28. Methane is extracted from geological deposits (natural gas fields). Other sources are landfills, fermentation of manure, and decay of organic matter.

Nitrous oxide: Nitrous oxide (N₂O) (laughing gas) is a colorless GHG that has a lifetime of 121 years, and its global warming potential is 265. Sources include microbial processes in soil and water, fuel combustion, and industrial processes.

Sulfur hexafluoride: Sulfur hexafluoride (SF₆) is an inorganic, odorless, colorless, and nontoxic, nonflammable gas that has a lifetime of 3,200 years and a high global warming potential of 23,500. This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas.

Perfluorocarbons: Perfluorocarbons (PFCs) have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Their global warming potential ranges from 7,000 to 11,000. Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.

Hydrofluorocarbons: Hydrofluorocarbons (HFCs) are a group of GHGs containing carbon, chlorine, and at least one hydrogen atom. Their global warming potential ranges from 100 to 12,000. Hydrofluorocarbons are synthetic manmade chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.

Some of the potential effects in California of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more forest fires, and more drought years (CARB, 2009). Globally, climate change has the potential to impact numerous environmental resources through potential, though uncertain, impacts related to future air temperatures and precipitation patterns. The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects:

- Higher maximum temperatures and more hot days over nearly all land areas;
- Higher minimum temperatures, fewer cold days and frost days over nearly all land areas;
- Reduced diurnal temperature range over most land areas;
- Increase of heat index over land areas; and
- More intense precipitation events.

Also, there are many secondary effects that are projected to result from global warming, including global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. While the possible outcomes and the feedback mechanisms involved are not fully understood and much research remains to be done, the potential for substantial environmental, social, and economic consequences over the long term may be great.

GHGs are produced by both direct and indirect emissions sources. Direct emissions include consumption of natural gas, heating and cooling of buildings, landscaping activities and other equipment used directly by land uses. Indirect emissions include the consumption of fossil fuels for vehicle trips, electricity generation, water usage, and solid waste disposal.

Existing California GHG Conditions

California has significantly slowed the rate of growth of GHG emissions due to the implementation of energy efficiency programs as well as adoption of strict emission controls; but is still a substantial contributor to the U.S. emissions inventory total. CARB compiles GHG inventories for the state. Based upon the 2022 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2020 GHG emissions period, California emitted an average 369.2 million metric tons of CO₂e (MMTCO₂e) per year.

Existing City of Santa Ana GHG Conditions

The GPU FEIR describes that operation of existing land uses within the City and the related vehicle trips generate GHG emissions from tail pipe emissions, emissions from natural gas used for energy, heating, and cooking; electricity usage; area sources such as landscaping equipment and consumer cleaning products; water demand; waste generation; and solid waste generation. As shown on Table 5.5-1, the GPU FEIR identified that in 2020, the City generated approximately 2,212,612 MTCO₂e/year, which results in 4.8 MTCO₂e/year per service population (SP). Of this, 66 percent was generated by transportation sources (vehicle emissions).

Table 5.5-1: Year 2020 City of Santa Ana Greenhouse Gas Emissions

Sector	MTCO ₂ e/year	Percent of Total
Transportation	1,463,006	66%
Energy – Residential	208,050	9%
Energy – Nonresidential	432,202	20%
Solid Waste	56,603	3%
Water/Wastewater	34,084	2%
Other – Off-Road Equipment	18,678	1%
Total	2,212,622	100%
MTCO₂e/Year/SP	4.8	-

Source: GPU FEIR Table 5.7-5.

Existing Project Site Conditions

The Project site is developed with 16 commercial buildings that generate GHG emissions from natural gas used for heating and hot water, electricity usage, related vehicle trips, use of landscaping equipment, use of consumer cleaning products, water demand, wastewater generation, and solid waste generation. The

estimated GHG emissions from the existing development within each Phase area of the Project site are summarized in Table 5.5-2.

Table 5.5-2: Existing Project Site Generated Greenhouse Gas Emissions

Project Site Area	MTCO _{2e} Per Year
Phase 1 Area	8,472
Phase 2 Area	1,268
Phase 3 Area	6,398
Total	16,138

Source: Greenhouse Gas Emissions Assessment, Appendix I

5.5.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of the CEQA Guidelines indicates that a project could have a significant effect if it were to:

- GHG-1 Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- GHG-2 Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

CEQA Guidelines Section 15064.4 provides discretion to the lead agency whether to: (1) use a model of methodology to quantify GHG emissions resulting from a project, and which model or methodology to use; or (2) rely on a qualitative analysis or performance-based standards. In addition, CEQA does not provide guidance to determine whether the project’s estimated GHG emissions are significant, but recommends that lead agencies consider several factors that may be used in the determination of significance of project related GHG emissions, including:

- The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting.
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

CEQA Guidelines Section 15130(f) describes that the effects of GHG emissions are by their very nature cumulative and should be analyzed in the context of CEQA’s requirements for cumulative impact analysis. Additionally, CEQA Guidelines Section 15064(h)3 states that 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 requirements to avoid or lesson the cumulative problem.

The SCAQMD formed a working group to identify greenhouse gas emissions thresholds for land use projects that could be used by local lead agencies in the Basin in 2008. The working group developed several different options that are contained in the SCAQMD Draft Guidance Document – Interim CEQA Greenhouse Gas Significance Threshold, that could be applied by lead agencies, which includes the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.

- Tier 2 consists of determining whether the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.
- Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to the project's operational emissions. If a project's emissions are below one of the following screening thresholds, then the project is less than significant:
 - All land use types: 3,000 MTCO_{2e} per year
 - Based on land use type:
 - Residential: 3,500 MTCO_{2e} per year
 - Commercial: 1,400 MTCO_{2e} per year
 - Mixed use: 3,000 MTCO_{2e} per year
 - Industrial use: 10,000 MTCO_{2e} per year when SCAQMD is the lead agency

SCAQMD used the Executive Order S-3-05-year 2050 goal as the basis for the Tier 3 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap CO₂ concentrations at 450 ppm, thus stabilizing global climate.

The City of Santa Ana has not adopted a numeric threshold of significance for GHG emissions. In the absence of an adopted quantitative threshold, the City of Santa Ana, as the Lead Agency, has determined that the proposed Project would not have a significant effect on the environment if the proposed Project is found to be consistent with the applicable regulatory plans and policies to reduce GHG emissions. The proposed Project's GHG emissions are evaluated consistent with CEQA Guidelines Sections 15183.5, 15064.4(a)(2), and 15064.4(b) by considering whether the proposed Project complies with the CARB Scoping Plan and the City's Climate Action Plan. The CARB Scoping Plan provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs.

5.5.5 METHODOLOGY

The California Emissions Estimator Model (CalEEMod) v2022.1 is the most recent version and has been used to determine construction and operational GHG emissions from the proposed Project. The purpose of this model is to calculate construction-source and operational-source GHG emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures, if applied. Construction emissions are quantified and per SCAQMD methodology, the total GHG emissions for construction activities are divided by 30-years, and then added to the annual operational phase of GHG emissions.

In addition, CEQA requires the lead agency to consider the extent to which the proposed Project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Therefore, this section addresses whether the proposed Project complies with various programs and measures designed to reduce GHG emissions. There is no statewide program or regional program or plan that has been adopted with which all new development must comply; thus, this analysis has identified the most relevant to the City of Santa Ana and the proposed Project.

5.5.6 ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR identified that if project GHG emissions are below the 3,000 MTCO_{2e} bright-line screening threshold, GHG emissions impacts would be considered less than significant. The GPU FEIR 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 3,000 MTCO_{2e} SCAQMD bright-line screening threshold. The GPU FEIR determined that the GPU would decrease emissions per service population to 3.5 MTCO_{2e}/SP in horizon year 2045 from 4.8 MTCO_{2e}/SP for the existing baseline year. The GPU FEIR identified the primary reason for the decrease in overall community-wide GHG emissions, despite an increase in population and employment in the city, is a result of regulations adopted to reduce GHG emissions and turnover of California's on-road vehicle fleets.

The GPU FEIR also analyzes the potential for conflict with the GHG reduction goals established under SB 32 and Executive Order S-03-05, which require a reduction in statewide GHG emissions from existing conditions to achieve a 40 percent reduction in GHG emissions by 2030 and an 80 percent reduction in GHG emissions by 2050, respectively. For a project with a buildout year of 2045, this would be a 70 percent reduction compared to 2020 levels.

The GPU FEIR addressed GHG impacts on pages 5.7-31 through 5.7-40 and determined that implementation of Mitigation Measure GHG-1, which requires the City to update its Climate Action Plan (CAP) every five years, would ensure that the City is tracking and monitoring the City's GHG emissions in order to chart a trajectory to achieve the long-term, year 2050, GHG reduction goal set by Executive Order S-03-05. However, the FEIR determined that at this time, there is no plan past 2030 that achieves the long-term GHG reduction goal established under Executive Order S-03-05. As identified by the California Council on Science and Technology, the state cannot meet the 2050 goal without major advancements in technology. Advancements in technology in the future could provide additional reductions and allow the state and City to meet the 2050 goal, but in the meantime, the GPU FEIR determined that impacts would be significant and unavoidable. The GPU FEIR included a mitigation measure to require the City to update the Climate Action Plan every 5 years. However, this is not a project-specific mitigation measure, and not directly related to development projects. The GPU FEIR also determined that the GPU would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Proposed Specific Plan Project

IMPACT GHG-1: THE PROJECT WOULD NOT GENERATE GHG EMISSIONS, EITHER DIRECTLY OR INDIRECTLY, THAT MAY HAVE A SIGNIFICANT IMPACT ON THE ENVIRONMENT.

Less than Significant Impact with Mitigation Incorporated.

Construction

As described in Section 3.0, *Project Description*, construction of the proposed Project is anticipated to occur in three phases over approximately 10 years. The construction-related activities involve the following: demolition, site preparation, excavation, grading, paving, construction of structures and infrastructure, and architectural coatings. These construction activities would result in the emission of GHGs from equipment exhaust, construction-related vehicular activity and construction worker automobile trips. Total estimated construction related GHG emissions from construction of the proposed Project were amortized over 30 years per SCAQMD methodology.

As shown on Table 5.5-3, construction of Phase 1 of the proposed Project would result in the generation of approximately 36,506 MTCO_{2e}. Construction of Phase 2 would generate approximately 10,091 MTCO_{2e}; and construction of Phase 3 would generate approximately 34,142 MTCO_{2e}. The amortized Project Phase 1 construction emissions would be 1,217 MTCO_{2e} per year while the amortized Project Phase 2 and Phase 3 construction emissions would be 336 MTCO_{2e} and 1,138 MTCO_{2e} per year, respectively. Total construction emissions and total amortized emissions for Project Buildout would be 80,740 MTCO_{2e} and 2,691 MTCO_{2e} per year, respectively. However, as detailed in Section 5.1, *Air Quality*, and listed below, the proposed Project would implement Mitigation Measure AQ-1, which requires the use of advanced engine tiers (i.e., equipment engines meeting CARB Tier 4 Final emissions standards), which would reduce total construction emissions to 67,425 MTCO_{2e} (2,248 MTCO_{2e} per year).

Table 5.5-3: Summary of Construction Related Greenhouse Gas Emissions

Construction Activities	MTCO _{2e}	
	Unmitigated	Mitigated
Phase 1 Construction		
Construction Year (2026)	11,888	9,667
Construction Year (2027)	11,290	10,201
Construction Year (2028)	11,133	10,042
Construction Year (2029)	1,910	1,383
Construction Year (2030)	286	270
Total Phase 1 Construction Emissions	36,506	31,564
Phase 1: 30-Year Amortized Construction Emissions	1,217	1,052
Phase 2 Construction		
Construction Year (2030)	2,911	1,664
Construction Year (2031)	4,007	2,684
Construction Year (2032)	3,174	2,320
Total Phase 2 Construction Emissions	10,091	6,668
Phase 2: 30-Year Amortized Construction Emissions	336	222
Phase 3 Construction		
Construction Year (2033)	12,052	9,333
Construction Year (2034)	4,354	3,386
Construction Year (2035)	13,680	12,690
Construction Year (2036)	4,057	3,784
Total Phase 3 Construction Emissions	34,142	29,193
Phase 3: 30-Year Amortized Construction Emissions	1,138	973
Project Buildout Total Construction Emissions	80,740	67,425
Project Buildout Total Amortized Emissions	2,691	2,248

Source: Greenhouse Gas Emissions Assessment, Appendix I.

Operation

Operation of the proposed Project would generate GHG emissions from vehicle trips, electricity and natural gas consumption, water, and wastewater transport (the energy used to pump water), and solid waste generation. GHG emissions from electricity consumed by the proposed Project would be generated off site by fuel combustion at the electricity provider. GHG emissions from water transport are also indirect emissions resulting from the energy required to transport water from its source. GHG emissions from solid waste disposal are associated with the anaerobic breakdown of material.

As shown in Table 5.5-4, the proposed Project’s total unmitigated increase in GHG emissions for Phase 1 would be approximately 20,597 MTCO_{2e}, for Phase 2 would be 7,325 MTCO_{2e}, for Phase 3 would be 14,147 MTCO_{2e}, and 42,069 MTCO_{2e} for Project buildout.

Table 5.5-4: Summary of Total Project Generated Increase in Greenhouse Gas Emissions

Emissions Source	MTCO _{2e} per Year	
	Unmitigated	Mitigated
Phase 1		
Construction Amortized Over 30 Years	1,217	1,052
Mobile	12,236	10,123
Area Source	68	0
Energy (Electricity)	4,489	4,178
Energy (Natural Gas)	1,623	1,489
Water and Wastewater	255	255
Waste	612	612
Refrigerants	96	96
TOTAL	20,597	17,806
Phase 2		
Construction Amortized Over 30 Years	336	222
Mobile	4,600	3,488
Area Source	29	0
Energy (Electricity)	1,501	1,485
Energy (Natural Gas)	527	469
Water and Wastewater	111	111
Waste	219	219
Refrigerants	1	1
TOTAL	7,325	5,995
Phase 3		
Construction Amortized Over 30 Years	1,138	973
Mobile	6,777	4,884
Area Source	48	0
Energy (Electricity)	1,157	1,111
Energy (Natural Gas)	4,533	4,022
Water and Wastewater	129	129
Waste	362	362
Refrigerants	2	2
TOTAL	14,147	11,484

Emissions Source	MTCO _{2e} per Year	
	Unmitigated	Mitigated
Project Buildout		
Construction Amortized Over 30 Years	2,691	2,248
Mobile	23,613	18,495
Area Source	146	0
Energy (Electricity)	7,147	6,774
Energy (Natural Gas)	6,683	5,979
Water and Wastewater	496	496
Waste	1,193	1,193
Refrigerants	100	100
BUILDOUT TOTAL	42,069	35,285
Existing Emissions		
Phase 1 Area Existing Emissions	8,472	8,472
Phase 2 Area Existing Emissions	1,268	1,268
Phase 3 Area Existing Emissions	6,398	6,398
EXISTING TOTAL	16,138	16,138
NET EMISSIONS	25,931	19,147

Source: Greenhouse Gas Emissions Assessment, Appendix I.

The Greenhouse Gas Emissions Assessment (Appendix I) describes that a majority of the GHG emissions (56 percent unmitigated and 52 percent mitigated) generated from the proposed Project at buildout are associated with non-construction related mobile sources. As detailed in Section 5.1, *Air Quality*, and listed below, proposed Project Mitigation Measure AQ-3: Vehicle Trip Reduction, Mitigation Measure AQ-4: Prohibition of Fireplaces, Mitigation Measure AQ-5: Electric Landscape Equipment, and Mitigation Measure AQ-6: Low VOC Paint (Operations) would reduce operational air quality emissions and would also reduce GHG emissions.

Additionally, Project Mitigation Measure GHG-1 is included to require installation of photovoltaic solar panels to offset energy emissions; Mitigation Measure GHG-2 is included to require the proposed Project meet or exceed CALGreen Tier 2 standards to further improve energy efficiency; Mitigation Measure GHG-3 is included to require the proposed Project to divert 75 percent of waste from landfills; Mitigation Measure GHG-4 is included to require landscape equipment on the Project site to be 100 percent electric; and Mitigation Measure GHG-5 is included to require use of energy efficient appliances.

Table 5.5-4 shows that implementation of these mitigation measures would reduce GHG emissions to 17,806 MTCO_{2e} for Phase 1; to 5,995 MTCO_{2e} for Phase 2; to 11,484 MTCO_{2e} for Phase 3; and to 35,285 MTCO_{2e} for Project buildout. The majority of the proposed Project's GHG emissions are generated by mobile emissions. The TDM program required by Mitigation Measure AQ-3 would reduce GHG emissions from commuting. Further, as detailed in Section 5.13, *Transportation*, the Project site is located within a TPA and SCAG identified High Quality Transit Area (HQTA) with direct access to transit, bicycle, and pedestrian facilities; and therefore, would reduce VMT and the related GHG emissions. The proposed Project would also install new bicycle lanes and sidewalks and implements a mixed-use development in an urban area that would provide for non-vehicular travel that would reduce GHG emissions. Additional mitigation to reduce the proposed Project's mobile GHG emissions is not feasible due to the limited ability of the Project Applicant and City of Santa Ana to reduce emissions from mobile sources. Neither the Project Applicant nor the Lead Agency (City of Santa Ana) can substantively or materially affect reductions in proposed Project mobile-source emissions.

As demonstrated in Impact GHG-2, the proposed Project would be consistent with the 2022 CARB Scoping Plan and City of Santa Ana CAP. As the proposed Project would be consistent with these GHG reduction plans, the proposed Project would be consistent with the State's long-term goal to achieve statewide carbon neutrality (zero net emissions) and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279.

The GPU FEIR determined that implementation of the GPU and its policies would result in a net decrease in emissions of approximately 255,878 MTCO_{2e} over existing conditions within the City. The proposed Project would implement the mitigation identified above and detailed below to reduce GHG emissions; and the Project proposes a specific plan that would be consistent with the buildout assumptions and applicable development standards of the GPU. Therefore, impacts related to generation of GHG emissions would be less than significant with mitigation incorporated. As such, Project impacts would be consistent with the impact conclusions set forth in the GPU FEIR, which determined that impacts related to GHG emissions would be less than significant with mitigation incorporated.

IMPACT GHG-2: THE PROJECT WOULD NOT CONFLICT WITH AN APPLICABLE PLAN, POLICY OR REGULATION OF AN AGENCY ADOPTED FOR THE PURPOSE OF REDUCING THE EMISSION OF GHGS.

Less than Significant Impact with Mitigation Incorporated. The proposed Project consists of an infill redevelopment project that would provide housing near freeways and transit in an employment and commercial area to plan for projected growth in the region and help to improve the jobs to housing balance (detailed in Section 5.10, *Population and Housing*). The proposed Project would provide a mixed-use community within a TPA and High-Quality Transit Area which has the potential to reduce GHG emissions from the reduction of VMT. The proposed Project provides for an onsite mix of uses that would limit the need to travel off site for many amenities and retail/service needs. The pedestrian and bicycle infrastructure and site location adjacent to bus stops for seven OCTA bus routes would promote non-vehicular transportation and reduce the vehicle miles traveled and related GHG emissions. Providing a mixed-use development in such a location is consistent with the intent of the AB 32 Scoping Plan and SB 375, which is focused on changing land use patterns and improving transportation alternatives.

The proposed Project would be implemented pursuant to the CALGreen Building/Title 24 requirements and would provide new land uses in a sustainable manner. The City's administration of the Title 24 requirements includes review of proposed energy conservation measures during the permitting process, which ensures that all requirements are met. Typical Title 24 measures include insulation; use of energy-efficient heating, ventilation, and air conditioning equipment; solar-reflective roofing materials; energy-efficient indoor and outdoor lighting systems; reclamation of heat rejection from refrigeration equipment to generate hot water; and incorporation of skylights, and solar infrastructure. In complying with the Title 24 standards, the proposed Project would be implementing regulations that reduce GHG emissions.

Also, the CARB Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32. The CARB Scoping Plan recommendations serve as statewide measures to reduce GHG emissions levels. The proposed Project would be consistent with the applicable measures established in the 2022 Scoping Plan, as shown in Table 5.5-5. The proposed Specific Plan would be consistent with SCAG strategies to provide infill residential and mixed-use development and increase the availability of transit-oriented development. In addition, as shown in Section 5.8, *Land Use and Planning*, in Table 5.8-1, the proposed Project would be consistent with SCAG's 2020 Connect SoCal RTP/SCS.

CARB Scoping Plan

The new development on the Project site pursuant to the proposed Specific Plan would include energy-efficient/energy-conserving design features and operation of the new commercial, residential, and open space areas would not interfere with the state's implementation of AB 1279's target of 85 percent below 1990 levels and carbon neutrality by 2045 because it does not interfere with implementation of the GHG reduction measures listed in CARB's Updated Scoping Plan (2022), as demonstrated in Table 5.5-5. CARB's 2022 Scoping Plan reflects the 2045 target of an 85 percent reduction below 1990 levels, set by Executive Order B-55-18, and codified by AB 1279. In addition, the proposed Project would be consistent with the following state policies that were adopted for the purpose of reducing GHG emissions.

As detailed in Table 5.5-5 and the discussion below, the proposed Project would not conflict with the CARB Scoping Plan and related regulations.

- Pavley emissions standard and Low Carbon Fuel Standard: Pavley emissions standards (AB 1493) apply to all new passenger vehicles and the Low Carbon Fuel Standard became effective in 2010 and regulates the transportation fuel used. The second phase of implementation of the Pavley regulations per AB 1493 is referred to as the Advanced Clean Car program, which combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for current model years through 2025. The regulation will reduce GHGs from new cars by 34 percent from 2016 levels by 2025. The proposed Project is consistent with these requirements as they apply to all new passenger vehicles and vehicle fuel purchased in California.
- Medium/Heavy-Duty Vehicle Regulations: Medium/heavy-duty vehicle regulations are implemented by the state to reduce emissions from trucks. Since the proposed Project would utilize trucks for construction and some operational purposes, these regulations would aid in reducing GHG emissions from the proposed Project. The proposed Project is consistent with this measure and its implementation as medium and heavy-duty vehicles associated with construction and operation of the Project would be required to comply with the requirements of this regulation.
- Tractor-Trailer Greenhouse Gas Regulation: Tractor-trailers subject to this state regulation are primarily 53-foot or longer box-type trailers, are required to be either use USEPA SmartWay certified tractors and trailers or retrofit their existing fleet with SmartWay verified technologies. The proposed Project would be consistent with this regulation, as it applies to specific trucks that are used throughout the state.
- Energy Efficiency – Title 24/CALGreen: The proposed Project is subject to the CALGreen Code Title 24 building energy efficiency requirements that offer builders better windows, insulation, lighting, ventilation systems, and other features as listed in Section 5.5.2, *Regulatory Setting* that reduce energy consumption. Compliance with the CALGreen standards would be verified by the City during the building permitting process.
- Renewable Portfolio Standard. As a customer of Southern California Edison (SCE), the proposed Project would purchase from an increasing supply of renewable energy sources and more efficient baseload generations, reduce GHG emissions, and be consistent with this requirement.
- Million Solar Roofs Program: The proposed Project is consistent with this scoping plan measure as the proposed Project would be required to comply with existing CALGreen/Title 24 standards, including the installation of solar panels.
- Water Efficiency and Waste Diversion: Development and operation of the proposed Project would be implemented in consistency with water conservation requirements (as included in CALGreen/Title 24) and solid waste recycling and landfill diversion requirements of the State.

Table 5.5-5: Project Consistency with the CARB 2022 Scoping Plan

Action	Consistency
GHG Emissions Reductions Relative to the SB 32 Target	
40 percent below 1990 levels by 2030.	Consistent. The proposed Project would comply with the Title 24, Part 6 building energy requirements along with other local and state initiatives that aim to achieve the 40 percent below 1990 levels by 2030 goal. This would be ensured through the City’s existing development permitting process. Further, the proposed Project would implement Mitigation Measure GHG-3, which requires the proposed Project to be designed to achieve LEED certification or exceed CA LGreen Tier 2 standards.
Smart Growth/Vehicle Miles Traveled VMT	
VMT per capita reduced 25 percent below 2019 levels by 2030, and 30 percent below 2019 levels by 2045.	Consistent. As discussed in Section 5.13, <i>Transportation</i> , of this Draft Supplemental EIR, the Project site is located within a TPA and SCAG identified High Quality Transit Area (HQTA) with direct access to transit bicycle and pedestrian facilities; and therefore, would result in less than significant impacts related to VMT. Hence, the proposed Project would be consistent with policies aimed at reducing VMT.
Light-Duty Vehicle (LDV) Zero-Emission Vehicles (ZEVs)	
100 percent of LDV sales are ZEV by 2035.	Consistent. The proposed Project would be designed and constructed in accordance with the Title 24 Part 6 and Part 11 requirements, which includes ZEV designated parking spaces and charging stations.
Truck ZEVs	
100 percent of medium-duty (MDV)/HDC sales are ZEV by 2040 (AB 74 University of California Institute of Transportation Studies [ITS] report).	Consistent. The proposed Project would be designed and constructed in accordance with the current Title 24 regulations, which includes prewiring for truck ZEV charging stations and/or providing electrical plug-ins at designated commercial loading docks.
Aviation	
20 percent of aviation fuel demand is met by electricity (batteries) or hydrogen (fuel cells) in 2045. Sustainable aviation fuel meets most or the rest of the aviation fuel demand that has not already transitioned to hydrogen or batteries.	Not Applicable. The proposed Project would not utilize aviation fuel.
Ocean-going Vessels (OGV)	
2020 OGV At-Berth regulation fully implemented, with most OGVs utilizing shore power by 2027. 25 percent of OGVs utilize hydrogen fuel cell electric technology by 2045.	Not Applicable. The proposed Project would not utilize any OGVs.
Port Operations	
100 percent of cargo handling equipment is zero-emission by 2037. 100 percent of drayage trucks are zero emission by 2035.	Not Applicable. The proposed Project would not impact any operations at any ports.
Freight and Passenger Rail	
100 percent of passenger and other locomotive sales are ZEV by 2030. 100 percent of line haul locomotive sales are ZEV by 2035. Line haul and passenger rail rely primarily on hydrogen fuel cell technology, and others primarily utilize electricity.	Not Applicable. The proposed Project would not involve any rail operations.
Oil and Gas Extraction	
Reduce oil and gas extraction operations in line with petroleum demand by 2045.	Not Applicable. The proposed Project would not involve any oil or gas extraction.

Action	Consistency
Petroleum Refining	
CCS on majority of operations by 2030, beginning in 2028. Production reduced in line with petroleum demand.	Not Applicable. The proposed Project would not involve any petroleum refining.
Electricity Generation	
Sector GHG target of 38 million metric tons of carbon dioxide equivalent (MTCO _{2e}) in 2030 and 30 MTCO _{2e} in 2035. Retail sales load coverage 134 20 gigawatts (GW) of offshore wind by 2045. Meet increased demand for electrification without new fossil gas-fired resources.	Consistent. The proposed Project would comply with the Title 24, Part 6 building requirements, including related to renewable energy generation requirements as well as improved insulation reducing energy consumption. In addition, the proposed Project would implement Mitigation Measure GHG-1, which would require the installation of solar photovoltaic panels onsite.
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 proposed Project would comply with the Title 24, Part 6 building energy requirements and would implement Mitigation Measure GHG-5, which would require all in-unit appliances for residential projects to be all-electric and Energy Star certified.
Existing Residential Buildings	
80 percent of appliance sales are electric by 2030 and 100 percent of appliance sales are electric by 2035. Appliances are replaced at end of life such that by 2030 there are 3 million all-electric and electric-ready homes—and by 2035, 7 million homes—as well as contributing to 6 million heat pumps installed statewide by 2030.	Not Applicable. The proposed Project does not involve the operation any existing residential buildings.
Existing Commercial Buildings	
80 percent of appliance sales are electric by 2030, and 100 percent of appliance sales are electric by 2045. Appliances are replaced at end of life, contributing to 6 million heat pumps installed statewide by 2030.	Not Applicable. The proposed Project would not involve any continued operations of existing commercial buildings.
Food Products	
7.5 percent of energy demand electrified directly and/or indirectly by 2030; 75 percent by 2045.	Consistent. The proposed Project would comply with the Title 24, Part 6 building energy requirements, including renewable energy generation requirements as well as improved insulation reducing energy consumption.
Construction Equipment	
25 percent of energy demand electrified by 2030 and 75 percent electrified by 2045.	Consistent. Through City permitting the proposed Project would be required to use construction equipment that are registered by CARB and meet CARB's standards. CARB sets its standards to be in line with the goal of reducing energy demand by 25 percent in 2030 and 75 percent in 2045.
Chemicals and Allied Products; Pulp and Paper	
Electrify 0 percent of boilers by 2030 and 100 percent of boilers by 2045. Hydrogen for 25 percent of process heat by 2035 and 100 percent by 2045. Electrify 100 percent of other energy demand by 2045.	Not Applicable. The proposed Project would not be utilized for pulp and/or paper products food products. The proposed Project would comply with the Title 24, Part 6 building energy requirements, including installing electrical wiring for all built in appliances, electric outlets for landscape equipment, solar panels on the maximum roof area available to support the buildings energy demand, and provision of electric charging stations.
Stone, Clay, Glass, and Cement	

Action	Consistency
CCS on 40 percent of operations by 2035 and on all facilities by 2045. Process emissions reduced through alternative materials and CCS.	Not Applicable. The proposed Project would not include manufacturing or storage of stone, clay, glass, or cement.
Other Industrial Manufacturing	
0 percent energy demand electrified by 2030 and 50 percent by 2045.	Not Applicable. The proposed Project does not include industrial manufacturing, but would comply with the Title 24, Part 6, including increases in renewable energy generation requirements as well as improved insulation reducing energy consumption.
Combined Heat and Power	
Facilities retire by 2040.	Not Applicable. The proposed Project does not involve any existing combined heat and power facilities.
Agriculture Energy Use	
25 percent energy demand electrified by 2030 and 75 percent by 2045.	Not Applicable. The proposed Project does not involve any agricultural uses.
Low Carbon Fuels for Transportation	
Biomass supply is used to produce conventional and advanced biofuels, as well as hydrogen.	Not Applicable. The proposed Project does not involve any production of biofuels.
Low Carbon Fuels for Buildings and Industry	
In 2030s, biomethane ¹³⁵ blended in pipeline Renewable hydrogen blended in fossil gas pipeline at 7 percent energy (~20 percent by volume), ramping up between 2030 and 2040. In 2030s, dedicated hydrogen pipelines constructed to serve certain industrial clusters	Not Applicable. The proposed Project does not involve any production of fuels for buildings and industry.
Non-combustion Methane Emissions	
Increase landfill and dairy digester methane capture. Some alternative manure management deployed for smaller dairies. Moderate adoption of enteric strategies by 2030. Divert 75 percent of organic waste from landfills by 2025. Oil and gas fugitive methane emissions reduced 50 percent by 2030 and further reductions as infrastructure components retire in line with reduced fossil gas demand.	Not Applicable. The proposed Project does not involve any landfill and/or dairy uses.
High GWP Potential Emissions	
Low GWP refrigerants introduced as building electrification increases, mitigating HFC emissions.	Consistent. The proposed Project would comply with the Title 24, Part 6 building energy requirements, including use of low GWP refrigerants, which would be verified through the City's existing development permitting process.

Scoping Plan Appendix D, Local Actions

The 2022 CARB Scoping Plan includes a set of Local Actions set forth in Appendix D to the 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.

The proposed Project would include a number of the example project design features and mitigation measures from the 2022 CARB Scoping Plan for construction and operation. For instance, the Scoping Plan's construction measures include enforcing idling time restrictions on construction vehicles, requiring construction vehicles to operate highest tier engines commercially available, diverting and recycling construction waste, minimizing tree removal, and increased use of electric and renewable fuel powered construction equipment and required renewable diesel fuel where commercially available. These measures are consistent with the requirements set forth in Project Mitigation Measure AQ-1, which requires the minimization of idling and the use of clean off-road engines.

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 CARB Scoping Plan notes that to be clearly consistent with the State's goals, projects should provide EV charging infrastructure that, at minimum, meets the most ambitious voluntary standard in the CALGreen code. The proposed Project is consistent with this attribute as Mitigation Measure GHG-2 requires Project EV charging to meet CALGreen Tier 2 standards.
- VMT Reduction. The Scoping Plan notes that to be consistent with the VMT reduction attribute, 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 (minimum of 20 residential dwelling units per acre). The proposed Project is an infill project surrounded by existing urban uses, does not result in the loss of natural and working lands (i.e., it would redevelop an existing shopping center), and has a density of approximately 91 dwelling units per acre (3,750 dwelling units on an approximately 41-acre site) (i.e., far greater than the minimum 20 dwelling units per acre to be considered a transit-supportive density). The proposed Project is also locating high density residential and other uses next to existing and proposed commercial retail services, office, and other uses. The proposed Project would implement the GPU and provide residential housing units consistent with the GPU and Housing Element. Furthermore, Mitigation Measure AQ-4, which requires implementation of a TDM program, would further reduce mobile-source emissions.
- Building Decarbonization. Building decarbonization involves maximizing energy efficiency and eliminating the use of fossil fuel consumption. Mitigation Measure GHG-1 requires the provision of solar panels on the maximum roof area available onsite, Mitigation Measure GHG-2 requires the proposed Project to meet CALGreen Tier 2 energy efficiency standards, including electric charging stations, Mitigation Measure GHG-4 requires the use of electric landscape equipment, and Mitigation Measure GHG-5 requires installation of Energy Star or equivalent energy efficiency rated appliances. In addition, Air Quality Mitigation Measure AQ-4 prohibits fireplaces. Therefore, the proposed Project would be developed in a manner that promotes energy efficiency and minimizes the reliance on fossil fuels.

As the proposed Project would implement key residential and mixed-use project attributes included in Appendix D as mitigation measures (Mitigation Measures GHG-1 through GHG-5), the proposed Project would be consistent with the actions and strategies set forth in Appendix D of the 2022 CARB Scoping Plan and would be consistent with the 2022 CARB Scoping Plan and the State's GHG reduction goals.

City of Santa Ana Climate Action Plan

The City of Santa Ana’s CAP includes reduction measures that would help the City achieve its emissions reduction goal, which is consistent with the statewide goals identified. This includes measures related to transportation and land use, community-wide energy, solid waste, water, and wastewater. The CAP describes that many of the commercial and employment corridors throughout the City have limited or no residential development. The proposed Project is consistent with City’s CAP strategy of locating new mixed-use development within employment corridors to create a more optimal mix of land uses and reduce vehicle miles traveled.

The proposed Project is an urban mixed-use infill project that would include local retail, housing, office, and hotel uses near transit routes, major freeways, and roadways. The proposed Project includes pedestrian circulation and bicycle circulation infrastructure and facilities. The infill location, mix of uses, and proximity to transit would reduce dependency on cars, reduce time spent in traffic, closely links residents to jobs and services, and reduce VMT. As described in Table 5.5-6, the proposed Project would be consistent with the relevant measures of the City’s CAP.

Table 5.5-6: Project Consistency with Santa Ana Climate Action Plan

CAP Goals		Compliance
Transportation and Land Use Measures		
GOAL 1:	Development of Local Retail Service Nodes	Consistent. The proposed Project is an urban mixed-use infill project that would include local retail, local services, housing, senior community, and hotel near transit routes, major freeways, and roadways. Because the proposed Project includes local retail and services the proposed Project is consistent with Goal 1.
GOAL 2:	Local Residential Nodes near Retail and Employment	Consistent. The proposed Project includes retail, housing, senior community, and hotel uses at an urban infill location near transit, major freeways, and roadways. The inclusion of 3,750 residential dwelling units would provide residential near retail and employment uses and is consistent with Goal 2.
GOAL 3:	Traffic Signal Synchronization Program	Not Applicable. This is not a project-specific policy and is related to the City traffic engineering of signals throughout the City. This goal is not applicable to the proposed Project.
GOAL 4:	Local Employment Nodes near Residential and Retail Areas	Consistent. As noted above, the proposed Project is an urban infill project mixed-use development that would include retail, services, and hotel uses that would provide local employment. The proposed Project also includes infill residential. Therefore, the proposed Project would provide employment near residential and retail, and would be consistent with Goal 4.
GOAL 5:	End of Trip Facilities in New Projects	Consistent. The proposed mix of uses, proximity to transit and employment would encourage and facilitate alternative forms of transportation. The proposed Project includes end of trip facilities, such as sidewalks and bicycle infrastructure. Thus, the proposed project would be consistent with Goal 5.
GOAL 6:	Safe Routes to Schools	Consistent. Although this is not a project-specific policy, the proposed Project would maintain and create additional pedestrian circulation and bicycle circulation; and roadway improvements would implement safety features pursuant to existing city and state regulations. Thus, the proposed Project would not result in conflict with Goal 6.

CAP Goals		Compliance
GOAL 7:	Design Guidelines for External Bike/ Pedestrian/ Transit Connectivity	Consistent. The Project would include a variety of connectivity points for vehicles, bicycles, transit, and pedestrians. The proposed Project has multiple bus lines that stop at the existing public transit stops along the northern, eastern, and southern boundaries of the Project site. Thus, the proposed Project would be consistent with Goal 7.
GOAL 8:	Design Guidelines for Internal Bike/ Pedestrian/ Transit Connectivity	Consistent. The proposed Project has a network of internal walkways to facilitate access throughout the varying land uses on the Project site. The proposed Project includes bicycle parking and locker facilities, and the site provides direct connection to existing transit. Thus, the proposed Project would be consistent with Goal 8.
GOAL 9:	Adjust Parking Ratios	Consistent. This goal applies to the parking standards established by the City. The proposed Specific Plan includes specific parking ratios for the site based on the proposed mix of uses and proximity to transit. Thus, the proposed Project would be consistent with Goal 9.
GOAL 10:	Community-wide Bike Sharing Stations	Consistent. The proposed Project would include bicycle parking/sharing stations within the parking structures. Thus, the proposed Project would be consistent with Goal 10.
Energy Measures		
GOAL 11:	Property Assessed Clean Energy (PACE) Financing— Commercial	Consistent. The proposed Project includes energy efficient infrastructure, such as Title 24 compliant irrigation and plumbing systems, energy efficient appliances, solar-reflective roofing materials, and electric vehicle charging stations. Financial programs such as PACE can provide assistance to the developer to implement these measures. Thus, the proposed Project would be consistent with Goal 11.
GOAL 12:	SCE Small and Medium Business Direct Install	Consistent. Programs such as SCE Direct Install can assist the developer with implementing these measures. The proposed Specific Plan would not conflict with Goal 12.
GOAL 13:	Property Assessed Clean Energy (PACE) Financing— Residential	Consistent. Financial programs such as PACE could potentially provide assistance to the developer to implement these measures. The proposed Specific Plan would not conflict with Goal 13.
GOAL 14:	Solar Photovoltaic Systems – New Private Installs	Consistent. The proposed Project requires the use of solar photovoltaic systems; see MM GHG-1. The solar incentives offered by the City could be used to assist the developer with solar photovoltaic installations. Thus, the proposed Project would be consistent with Goal 14.
GOAL 15:	SCE and SCG Residential Programs	Consistent. These goals generally involve the use of retrofit programs and would not directly apply to the new development proposed on site. The proposed Project would comply with the latest CALGreen and Title 24 standards, which would meet these requirements. Thus, the proposed Project would be consistent with Goals 15 through 19.
GOAL 16:	Weatherization*	
GOAL 17:	SCG Commercial Programs**	
GOAL 18:	Streetlight Purchase and Retrofit***	
GOAL 19:	Benchmarking and Retro-commissioning*	
GOAL 20:	Title 24 Energy Efficiency Standards—Commercial*	Consistent. The proposed Project would comply with Title 24 energy efficiency standards for commercial uses. Thus, the proposed Project would be consistent with Goal 20.

CAP Goals	Compliance
GOAL 21: Title 24 Energy Efficiency Standards–Residential*	Consistent. The proposed Project would go above the requirements set forth in Title 24 through the implementation of Mitigation Measure GHG-2, which requires the proposed Project to be designed to achieve LEED certification to meet or exceed CALGreen Tier 2 standards. Thus, the proposed Project would be consistent with Goal 21.
GOAL 22: Solar Hot Water Heating Systems for Laundromats**	Consistent. Should a laundromat be proposed, it would be required to comply with Goal 22 through the City’s permitting process.
GOAL 23: Green Business Challenge Program*	Consistent. Incentive and financial programs such as the Green Business Challenge Program can assist future tenants to implement energy efficiency measures. The program benefits participating businesses through reduced costs for energy, water, and waste disposal. The proposed Specific Plan would not conflict with Goal 23.
Solid Waste, Water, and Wastewater Measures	
GOAL 24: AB 341 Commercial and Multifamily Recycling	Consistent. The proposed Project would implement a solid waste recycling system in compliance with state and local regulations. In addition, the proposed Project would implement MM GHG-3, which requires developments to divert 75 percent of landfill waste. Thus, the proposed Project would be consistent with Goal 24.
GOAL 25: Food Waste Digestion	Consistent. Beginning in 2022, SB 1383 requires every jurisdiction to provide organic waste collection services to all residents and businesses. SB 1383 required CalRecycle to adopt regulations designed to reduce statewide landfill disposal of organic waste. The proposed Project would comply with the latest regulations regarding food waste collection. Thus, the proposed Project would be consistent with Goal 25.
GOAL 26: Rainwater Harvesting	Consistent. The proposed Project would install storm water detention and biofiltration systems that would collect runoff in vegetated biotreatment systems that have been designed to accommodate stormwater from the site. The systems would filter, treat, and discharge runoff into the existing offsite drain. In addition, runoff would be routed to Project landscaped areas. The proposed Project would not conflict with Goal 26.
GOAL 27: Turf Removal	Consistent. There is very limited turf on the Project site associated with existing landscaping for the shopping center. The proposed Project requires landscaping alternatives to turf. Thus, the proposed Project would be consistent with Goal 27.

*Note that emissions reduction from these measures include natural gas and electricity savings.

**Emissions reduction from these measures is due entirely to natural gas savings.

***Emissions reduction from these measures is due entirely to electricity savings.

The proposed Project is consistent with AB 32 and SB 32 through implementation of municipal code measures that address GHG emissions related to building energy, solid waste management, wastewater, and water conveyance, which would be verified by the City during the Project development review and permitting process.

Overall, the proposed Project would not result in a conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. The proposed Project would be implemented in compliance with state energy standards provided in Title 24. The proposed Project would not interfere with the state’s implementation of AB 1279’s target of 85 percent below 1990 levels and carbon neutrality by 2045 because it would be consistent with the CARB 2022 Scoping Plan, which is

intended to achieve the reduction targets required by the state. In addition, the proposed Project would be consistent with the relevant City GPU goal and policies and the City's Climate Action Plan. Thus, the proposed Project would not result in a conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs, and impacts would be less than significant.

5.5.7 CUMULATIVE IMPACTS

GHG emissions impacts are assessed in a cumulative context, since no single project can cause a discernible change to climate. Climate change impacts are the result of incremental contributions from natural processes, and past and present human-related activities. Therefore, the area in which a proposed project in combination with other past, present, or future projects, could contribute to a significant cumulative climate change impact would not be defined by a geographical boundary such as a project site or combination of sites, city or air basin. GHG emissions have high atmospheric lifetimes and can travel across the globe over a period of 50 to 100 years or more. Even though the emissions of GHGs cannot be defined by a geographic boundary and are effectively part of the global issue of climate change. However, CEQA only applies to California. Thus, the geographic area for analysis of cumulative GHG emissions impacts is the state of California.

Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006 (Nunez), recognizes that California is the source of substantial amounts of GHG emissions. The statute begins with several legislative findings and declarations of intent, including 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" (California Health and Safety Code, Section 38501 (a)).

Thus, 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 that cumulative impact.

The analysis of GHG emission impacts under CEQA contained in this Supplemental EIR effectively constitutes an analysis of a project's contribution to the significant cumulative impact of GHG emissions. 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 the proposed Project would be implemented in compliance with applicable plans for the reduction of GHG emissions, detailed previously, the contribution of the proposed Project to significant cumulative GHG impacts would be less than cumulatively considerable. As described previously, the majority of the proposed Project's GHG emissions are generated by mobile emissions. The TDM program required by Mitigation Measure AQ-3 would reduce GHG emissions from commuting. Also, because the Project site is located within a TPA and a High Quality Transit Area with direct access to transit, bicycle, and pedestrian facilities, it would reduce VMT and the related GHG emissions. Further, the Project proposes a specific plan that would be consistent with the buildout assumptions and applicable development standards of the GPU. Therefore, impacts related to generation of GHG emissions from the proposed Project would be less than cumulatively significant with mitigation incorporated.

In addition, because the proposed Project would not result in a conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs, it would not have the

potential to cumulatively combine. Therefore, cumulative impacts related to a conflict with a policy for the purpose of reducing GHG emissions would not occur.

5.5.8 EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS, OR POLICIES

The following requirements would reduce impacts related to GHG emissions.

- California Assembly Bill 1493 (Pavley)
- California Executive Order S-3-05
- Assembly Bill 32 (Global Warming Solutions Act of 2006)
- Senate Bill 375 (Steinberg)
- California Executive Order B-30-15
- Assembly Bill 1279 (Carbon Neutrality)
- California Energy Code
- California Green Building Standards Code
- Santa Ana CAP

5.5.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impact GHG-1 and Impact GHG-2 would be **potentially significant**.

5.5.10 MITIGATION MEASURES

GPU FEIR Mitigation Measures

GPU FEIR MM AQ-1: As listed previously in Section 5.1, *Air Quality*.

Proposed Project Applicability: GPU FEIR MM AQ-1 is applicable to the proposed Project and equipment engines meeting CARB Tier 4 Final emissions standards will be required for construction equipment with engines between 50 and 750 horsepower.

Proposed Specific Plan Project Mitigation Measures

Mitigation Measure AQ-3: Vehicle Trip Reduction. As listed previously in Section 5.1, *Air Quality*.

Mitigation Measure AQ-4: Prohibition of Fireplaces. As listed previously in Section 5.1, *Air Quality*.

Mitigation Measure AQ-5: Electric Landscape Equipment. As listed previously in Section 5.1, *Air Quality*.

Mitigation Measure AQ-6: Low VOC Paint (Operations). As listed previously in Section 5.1, *Air Quality*.

Mitigation Measure GHG-1: Solar Panels. The Project shall be required to install solar photovoltaic (PV) panels or other source of renewable electricity generation on-site, based on the maximum roof area available for solar (i.e., solar-ready zone). The solar-ready zone shall comply with Section 110.10 of the 2022 California Energy Code and shall comply with access, pathway, ventilation, and spacing requirements, and exclude skylight area.

The final PV generation facility size requires approval by Southern California Edison (SCE). SCE's Rule 21 governs operating and metering requirements for any facility connected to SCE's distribution system. Should SCE limit the offsite export, the proposed Project may utilize a battery energy storage system (BESS) to lower offsite export while maintaining onsite renewable generation to off-set consumption. The electrical

system and infrastructure must be clearly labeled with noticeable and permanent signage. The schedule of photovoltaic system locations may be updated as needed.

Mitigation Measure GHG-2: LEED, Charging Stations, and Bus Stops. Prior to the issuance of a Phase 1, Phase 2, or Phase 3 building permits, the Project Applicant or successor in interest shall provide documentation to the City of Santa Ana demonstrating the following:

- The Project shall be designed to achieve Leadership in Energy and Environmental Design (LEED) certification to meet or exceed CALGreen Tier 2 standards in effect at the time of building permit application in order to exceed 2022 Title 24 energy efficiency standards.
- The Project shall provide facilities to support electric charging stations per the Tier 2 standards in Section A5.106.5.3 (Nonresidential Voluntary Measures) and Section A5.106.8.2 (Residential Voluntary Measures) of the 2022 CALGreen Code.
- The Applicant 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.

Mitigation Measure GHG-3: Landfill Waste. The development (Phase 1, Phase 2, and Phase 3) shall divert a minimum of 75 percent of landfill waste. Prior to issuance of certificate of occupancy, a recyclables collection and load area shall be constructed in compliance with the City standards for Recyclable Collection and Loading Areas.

Mitigation Measure GHG-4: Electrical Landscape Equipment. Prior to the issuance of Phase 1, Phase 2, or Phase 3 occupancy permits, the City Planning and Building and Safety Divisions shall confirm that tenant lease agreements include contractual language that all landscaping equipment used on site shall be 100 percent electrically powered. This requirement shall be included in the third-party vendor agreements for landscape services for the building owner and tenants, as applicable.

Mitigation Measure GHG-5: Energy Efficient Appliances. All major applicant provided in-unit residential appliances (e.g., dishwashers, refrigerators, clothes washers and dryers, water heaters, and for space heating) provided/installed shall be electric (i.e., appliances that do not use natural gas, propane, or other fossil fuels) and Energy Star certified or of equivalent energy efficiency where applicable. Prior to the issuance of the certificate of occupancy, the City of Santa Ana shall verify implementation of this requirement. Installation of electric Energy Star–certified or equivalent appliances shall be verified by the Planning and Building Department during plan check.

5.5.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The impacts related to GHG emissions would be mitigated to a less-than-significant level. Also, the Project would not conflict with an applicable plan adopted for the purpose of reducing GHGs with implementation of the mitigation included. Therefore, impacts related to GHG emissions would be less than cumulatively significant with incorporation of mitigation.

REFERENCES

- California Air Pollution Control Officers Association Quantifying Greenhouse Gas Mitigation Measures, 2010. Accessed at: <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>.
- California Air Resources Board Current California GHG Emission Inventory Data. Accessed: <https://ww2.arb.ca.gov/ghg-inventory-data>
- California Air Resources Board 2022 Scoping Plan Documents. Accessed: <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents>
- California Energy Commission Title 24 Building Energy Standards (CEC 2023). Accessed: <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency>
- Greenhouse Gas Emissions Assessment. May 2023. Prepared by Kimley-Horn (Appendix I)
- City of Santa Ana General Plan Update. April 2022. Accessed: <https://www.santa-ana.org/general-plan-documents/>
- City of Santa Ana General Plan Update Final Recirculated Draft Program Environmental Impact Report - October 2021. Accessed: <https://www.santa-ana.org/general-plan-environmental-documents/>
- City of Santa Ana Climate Action Plan. December 2015. Accessed at: <https://www.santa-ana.org/climate-action-plan/>

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5.6 Hazards and Hazardous Materials

5.6.1 INTRODUCTION

This section considers the nature and range of foreseeable hazardous materials and physical hazards impacts that would result from implementation of the proposed Project. It identifies the ways that hazardous materials and other types of hazards could expose people and the environment to various health and safety risks during construction activities and operation of proposed Project.

This section also describes routine hazardous materials that are likely to be used, handled, or processed within the Project area, and the potential for upset and accident conditions in which hazardous materials could be released. The impact analysis identifies ways in which hazardous materials might be routinely used, stored, handled, processed, or transported, and evaluates the extent to which existing and future populations could be exposed to hazardous materials.

The term “hazardous material” is defined as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment.¹

The analysis in this section is based on the following:

- *City of Santa Ana General Plan Update*
- *City of Santa Ana General Plan Update FEIR*
- *City of Santa Ana Municipal Code*
- *Phase I Environmental Site Assessment (Phase I)* (Appendix J)
- *Phase II ESA for the northern portion of the site (Phase II North)* (Appendix K1)
- *Phase II ESA for the southern portion of the site (Phase II South)* (Appendix K2)

5.6.2 REGULATORY SETTING

Hazardous Materials Management

The primary federal agencies responsible for hazardous materials management include the U.S. Environmental Protection Agency (USEPA) and the U.S. Department of Labor Occupational Safety and Health Administration (OSHA).

Resource Conservation and Recovery Act of 1976

Federal hazardous waste regulations are generally promulgated under the Resource Conservation and Recovery Act (RCRA). Pursuant to RCRA, the 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

¹State of California, Health and Safety Code, Chapter 6.95, Section 25501(o).

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 (CalRecycle), which is discussed in detail below.

RCRA allows the USEPA to oversee the closure and post-closure of landfills. Additionally, the Federal Safe Drinking Water Act, 40 CFR Part 141, gives the USEPA the power to establish water quality standards and beneficial uses for waters from below- or above-ground sources of contamination. For the Project area, water quality standards are administered by the Regional Water Quality Control Board (RWQCB).

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 OSHA. Title 29 of the Code of Federal Regulations (29 CFR) 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 (MSDS), which describe the proper use of hazardous materials; and training of employees to remediate any hazardous material accidental releases. OSHA regulates administration of 29 CFR.

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 (HMTA), which is administered by the Research and Special Programs Administration (RSPA) of the U.S. Department of Transportation (USDOT). 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 HMTA 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.

Federal Regulation 49 Code of Federal Regulation Part 77

The Federal Aviation Agency (FAA) is the federal agency that identifies potential impacts related to air traffic and related safety hazards. The Federal Regulation 49 Code of Federal Regulation (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 objects.

FAA Federal Aviation Regulations (FAR) Part 77 includes the establishment of imaginary surfaces (airspace that provides clearance of obstacles for runway operation) that allows the FAA to identify potential aeronautical hazards in advance, thus preventing or minimizing adverse impacts to the safe and efficient use of navigable airspace. The regulations identify three-dimensional imaginary surfaces through which no object should penetrate. The imaginary surface for SNA consists of a 100:1 slope extending outward for 20,000 feet from the nearest runway. Section 77.17 (Obstruction Standards) also states that an object would be an obstruction to air navigation if it is higher than 200 feet above ground level. Exceedance of 200 feet above ground level or the 100:1 imaginary surface requires notification to FAA (per FAR Part 77). An object that would be constructed or altered within the height restriction or imaginary surface area of the airport is not necessarily incompatible (ALUP 2008) but would be subject to FAA notification and an FAA aeronautical study to determine whether the proposed structures would constitute a hazard to air navigation.

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 (CalEMA) administers the California Accidental Release Prevention (CalARP) 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 (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 RWQCB 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 (CUPA) 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 (Cal ARP); 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 (CUPA).

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:

- 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 (CCR) 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. CalRecycle 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 – CalOSHA

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 (IIPP), 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 lead exposure during construction activities under CCR Title 8, Section 1532.1, Lead, 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.

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.

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.

Emergency Response

The City of Santa Ana has its own Police Department and contracts with the Orange County Fire Authority (OCFA) 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.

California Public Utilities Code, Section 21676, Airport Land Use Commission

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 Airport Land Use Commission (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 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 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.

Airport Environs Land Use Plan for John Wayne Airport

SNA is within the oversight of the Orange County 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 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 furthest extent of the 60 CNEL contour, the FAR Part 77 Notification Imaginary Surface area, and the runway safety zones associated with the airport. In most instances, the airport influence area is designated by the ALUC as its planning area boundary for the airport and the two terms can be considered synonymous.

Building Height Restrictions: The ALUC has adopted the FAR Part 77 as the criteria for determining height restrictions in Orange County. These regulations are the only definitive standard available and the standard most generally used (AELUP 2008). The allowable height of structures surrounding an airport is described in FAR Part 77 as the allowable height at which safe movement of aircraft occurs. The 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 SNA. Beyond the 100:1 imaginary surface, FAR Part 77 requires notification to FAA for any project that will be more than 200 feet in height above the ground level.

Policies: The following policies in the ALUC Airport Environs Land Use Plan are relevant to the proposed Project:

Policy 3.2.1: 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 3.2.4: Noise Impact Zone "2" - Moderate Noise Impact (60 dB CNEL or greater, less than 65 dB CNEL). Noise impacts in this area are sufficient to require sound attenuation as set forth in the California Noise Insulation Standards, Title 25, California Code of Regulations. Single noise events in this area create serious disturbances to many inhabitants. Even though the ALUC would not find residential units incompatible in this area, the ALUC strongly recommends that residential units be limited or excluded from this area unless sufficiently sound attenuated. The residential use interior sound attenuation requirement shall be a CNEL value not exceeding an interior level of 45 dB. In addition, it is recommended that designated outdoor common or recreational areas within Noise Impact Zone 2 provide outdoor signage informing the public of the presence of operating aircraft.

Policy 3.2.5: Runway Protection Zone "RPZ," Extreme Crash Hazard. The severe potential for loss of life and property due to accidents prohibits most land uses in this area. Only airport related uses and open space uses, including agriculture and certain types of transportation and utility uses are permitted. No buildings intended for human habitation are permitted in the RPZ. Furthermore, because of the proximity to aeronautical operations, uses in this area must not attract birds nor emit excessive glare or light, nor produce or cause steam, smoke, dust, or electronic interference so as to interfere with, or endanger, 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. 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.

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.

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."

City of Santa Ana General Plan Update

The following goals and policies from the Santa Ana General Plan Update (GPU) are relevant to the proposed Project:

Community Element

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.

Public Services Element

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.

Noise Element

GOAL N-3: Protect sensitive land uses from airport related noise impacts.

POLICY N-3.1: Residential development within the John Wayne Airport (SNA) 65 dB(A) CNEL Noise Contour or greater is not supported.

POLICY N-3.2: Advocate that future flight path selection be directed away from existing noise sensitive land uses.

POLICY N-3.3: 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: 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.

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.

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 Airport Land Use Commission (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 Federal Aviation Regulation (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 Airport Land Use Commission (ALUC), and pursuant to Public Utilities Code Section 21676, the City shall first refer the proposed action to the ALUC.
- 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.

5.6.3 ENVIRONMENTAL SETTING

The Project site was historically used for agriculture until the existing commercial buildings on the site were developed beginning in the early 1970s. The Project site is currently developed with 16 commercial structures that are used for restaurants, a supermarket, banks, a dry cleaner facility, and a variety of other retail establishments that use and store a limited volume of hazardous materials. The Phase I Environmental Site Assessment (Appendix J) identified three Recognized Environmental Conditions (RECs) that include a dry-cleaning facility, a potential existing Underground Storage Tank (UST), and removal of contaminated soil in 1984 that is suspected to be associated with the removal of previous USTs (previous USTs were removed in 1984 but did not document contaminated soil). In addition, the Project site was known to previously include a gas station.

The Phase I Environmental Site Assessment also describes that gasoline-impacted groundwater has been documented at six LUST facilities adjacent to the site; one of which was listed as an open case. The Phase II Environmental Site Assessments (Appendix K1 and K2) conducted onsite soils, soil gas, and groundwater testing throughout the site, including next to the dry cleaner location. Groundwater levels ranged from 5.9 feet below the ground surface in the south-central (possibly perched groundwater) to 24.8 feet below the ground surface in the southwestern portion of the site.

The laboratory test results were compared to corresponding United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) for residential use and Department of Substances Control Screening Levels (DTSC SLs) for residential use. The testing identified that onsite soil samples in portions of the Project site exceed residential screening levels and in some cases commercial screening levels for TPH-d, TPH-mo, and select semi-volatile organic compounds (SVOCs). The Phase II Environmental Site Assessments describe that the elevated concentrations are consistent with asphaltic material and are likely attributable to the asphalt parking lots on the site. In addition, soil that exhibited concentrations above residential screening levels and below commercial screening levels could be reused on the site as backfill material for non-residential and non-sensitive areas.

Soil gas samples exceeded conservative residential screening levels for benzene and tetrachloroethene (PCE). The Phase II Environmental Site Assessments describe that the elevated soil gas levels are based on a conservative attenuation factor (AF) of 0.03, which is an empirically derived AF provided as default by USEPA. However, DTSC has applied an AF of 0.001 for new residential construction, which these samples would meet. Thus, the onsite soil gas samples do not exceed the DTSC screening thresholds for new residential construction.

In addition, the Phase II Environmental Site Assessments groundwater testing identified Methyl tert-butyl ether (MTBE) that exceeded the corresponding Maximum Contaminant Level (MCL) in one sample located at the northeast corner of the Project site at approximately 23.2 feet below the ground surface, which is likely attributable to an offsite and upgradient LUST cleanup site, located northeast of the Project site. In addition, a groundwater sample from the southern central portion of the Project site identified a TPH-d concentration from an offsite source that exceeds the corresponding RSL for “tap water” (drinking water). Additional information regarding groundwater quality and related potential impacts is provided in Section 5.7, *Hydrology and Water Quality*.

Asbestos

Asbestos is a naturally occurring fibrous material that was used as a fireproofing and insulating agent in building construction before such uses were banned by the USEPA in the 1970s, although some nonfriable² use of asbestos in roofing materials still exists. The presence of asbestos can be found in materials such as ducting insulation, wallboard, shingles, ceiling tiles, floor tiles, insulation, plaster, floor backing, and many other building materials. The OSHA regulation 29 CFR 1926.1101 requires certain construction materials to be presumed to contain asbestos, for purposes of this regulation. All thermal system insulation, surfacing material, and asphalt/vinyl flooring that are present in a building constructed prior to 1981 and have not been appropriately tested are “presumed asbestos-containing material”.

Asbestos and asbestos-containing materials (ACMs) are considered both a hazardous air pollutant and a human health hazard. The risk to human health is from inhalation of airborne asbestos, which commonly occurs when ACMs are disturbed during such activities as demolition and renovation. The buildings within the Project site were constructed between 1972 and 2004; of which nine were constructed in the 1970’s when asbestos containing materials were commonly used. The Phase I identified through record searches that three structures on the Project site (3600, 3820, and 3900 South Bristol Street) have previously disposed of ACMs, and that the disposal quantities (less than 2.5 tons) suggest that the waste was associated with remodels and not complete demolition. Therefore, it is anticipated that some of the existing buildings on the Project site contain ACMs.

Lead

In 1978, the Consumer Product Safety Commission set the allowable lead levels in paint at 0.06 percent by weight in a dry film of newly applied paint. In the 1970s, the chief concern for lead-based paint was its cumulative effect on body systems, primarily when paint chips containing lead were ingested by children. Research in the early 1980s showed that lead dust is of special concern because the smaller particles are more easily absorbed by the body. Common methods of paint removal, such as sanding, scraping, and burning, create excessive amounts of dust. Lead dust is especially hazardous to young children because they play on the floor and engage in a great deal of hand-to-mouth activity, increasing their potential for exposure. Due to the age of the onsite buildings, it is possible that lead-based paint and other lead containing materials are present in some of the buildings on the Project site. The testing showed that the remainder of the constituents were below residential screening levels and/or background concentrations.

² Nonfriable asbestos refers to ACMs that contain asbestos fibers in a solid matrix that does not allow for them to be easily released.

John Wayne Airport

John Wayne Airport (SNA) is located approximately 1.4 miles southeast of the Project site, which is to the west of the primary aircraft approach corridor. The Project site is not located within SNA's Airport Safety Zone (shown on Figure 5.6-1). In addition, the Project site is located outside of both the airport's planned and actual (2019) 60 CNEL contours (Figures 5.6-2 and 5.6-3).

However, the Project site is located within the AELUP Notification area for SNA and the FAR Part 77 Notification Imaginary Surface area (shown on Figure 5.6-4). The ALUC has adopted FAR Part 77 as the criteria for determining height restrictions in Orange County. FAR Part 77 requires notification to FAA for any project that would be more than 200 feet in height above ground level or within the imaginary surface of a 100:1 slope extending outward for 20,000 feet from the nearest runway. As shown on Figure 5.6-4, the Project site is located within the 200-foot-high imaginary surface area for SNA. Therefore, FAA notification for the proposed Project would be required.

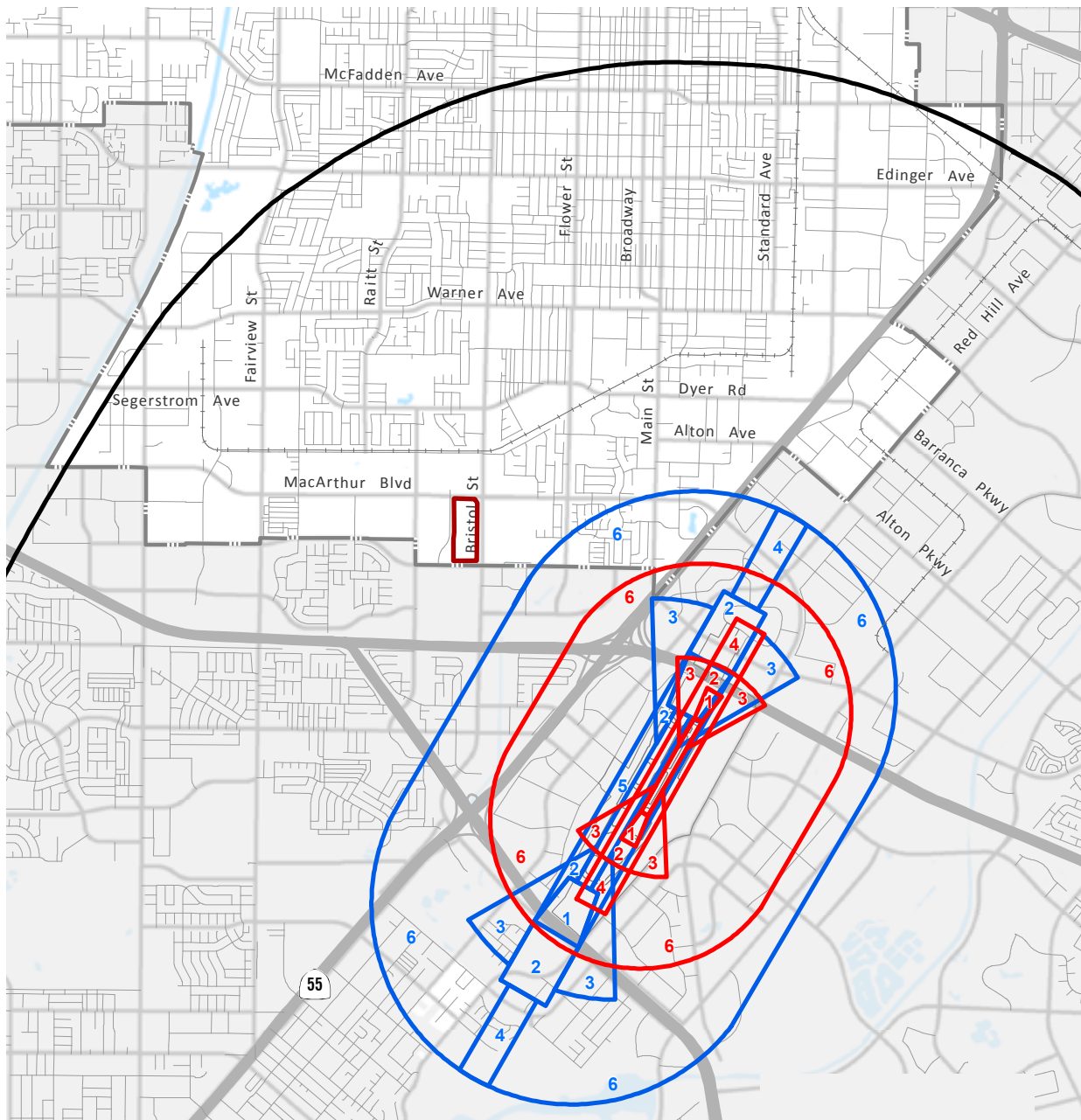
Because the Project site is located within the AELUP Notification area for SNA and within the SNA planning area boundary, and the Project proposes a Specific Plan and a zone change, the City is required to refer the proposed Project to the ALUC for review, pursuant to the California Public Utilities Code Section 21676, as listed previously.

5.6.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

- HAZ-1 Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials;
- HAZ-2 Create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment;
- HAZ-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within 0.25 mile of an existing or proposed school;
- HAZ-4 Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment;
- HAZ-5 Result in a safety hazard or excessive noise for people residing or working in the project area for a project located within an airport land use plan or, where such plan has not been adopted, be within 2 miles of a public airport use airport or public use airport;
- HAZ-6 Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan; or
- HAZ-7 Expose people or structures either directly or indirectly to a significant risk of loss, injury, or death involving wildland fires.

Airport Safety Zones



- 1. Runway Protection Zone
- 2. Inner Approach/Departure Zone
- 3. Inner Turning Zone
- 4. Outer Approach/Departure Zone
- 5. Sideline Zone
- 6. Traffic Pattern Zone

1-6 Medium General Aviation Runway Safety Compatibility Zones for Runway 1L & 19R

1-6 Short General Aviation Runway Safety Compatibility Zones for Runway 1L & 19R

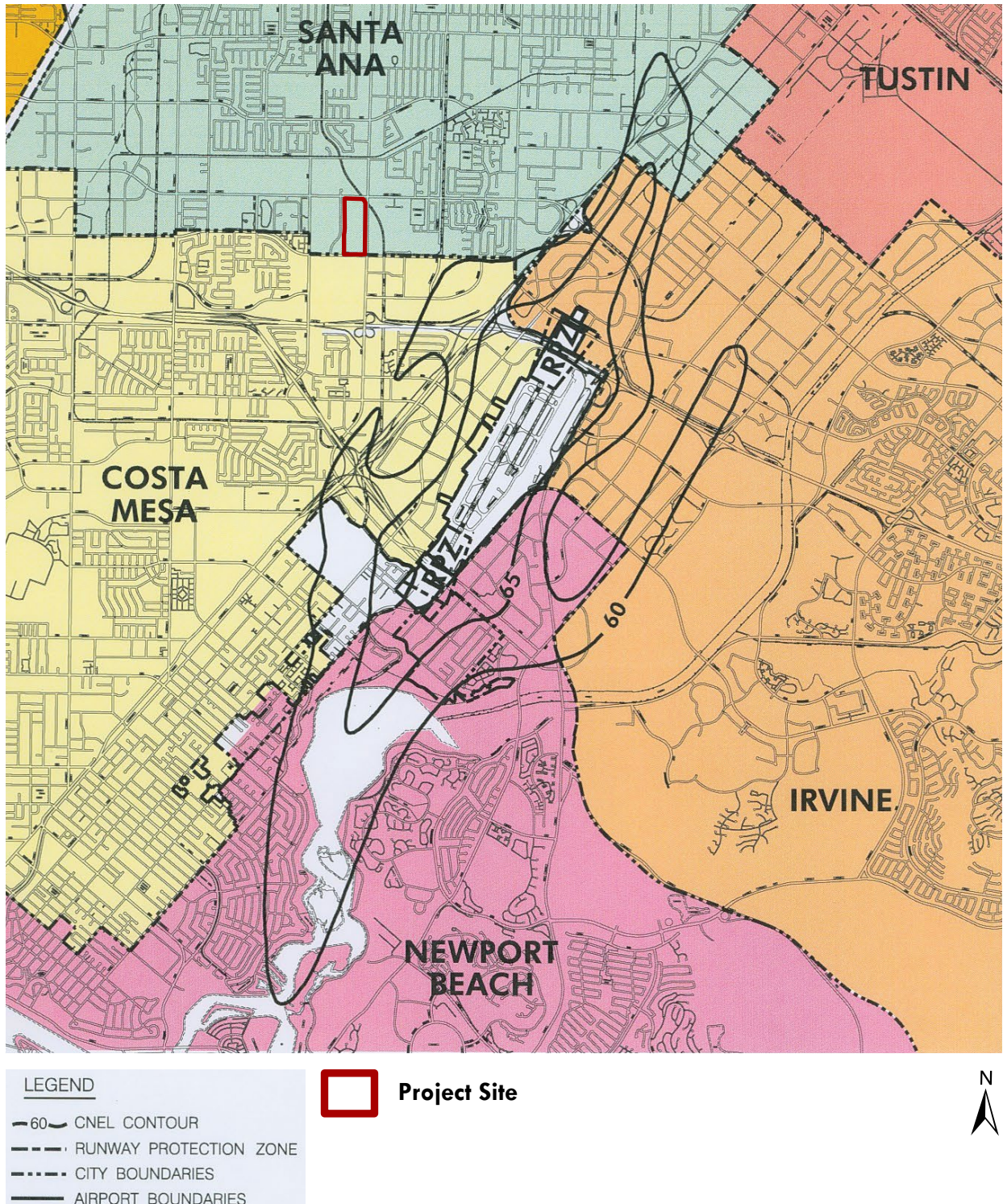
— FAR Part 77 Notification Area

Project Site



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John Wayne Airport Noise Impact Zones



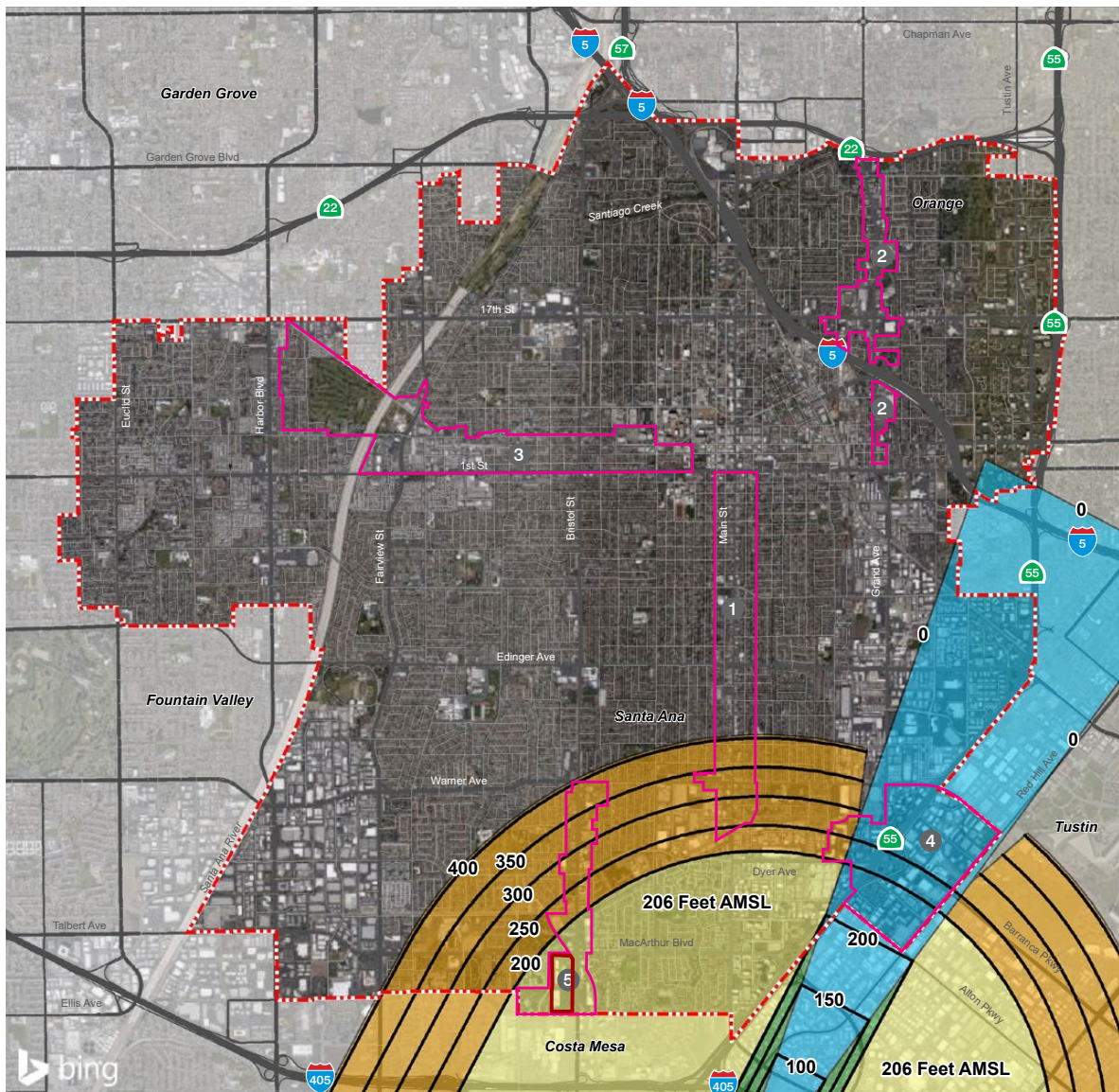
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John Wayne Airport 2019 Noise Contours





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FAR Part 77 Airport Surfaces








 **Project Site**

 City of Santa Ana

 Elevation Contours in feet above mean sea level (AMSL)

Airport Surfaces

-  Horizontal Surface - Elevation 206 Feet AMSL
-  Departure Surface - Slope 50:1 (Horizontal:Vertical)
-  Transitional Surface - Slope 7:1 (Horizontal:Vertical)
-  Conical Surface - Slope 20:1 (Horizontal:Vertical)
-  Runway - Elevation 54 Feet AMSL

Focus Areas

-  1 South Main Street
-  2 Grand Ave/17th Street
-  3 West Santa Ana Boulevard
-  4 55 Fry/Dyer Road
-  5 South Bristol Street



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5.6.5 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 FEIR, and the Phase I and Phase II Environmental Site Assessments.

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.

5.6.6 ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR addressed impacts related to hazards and hazardous materials in Chapter 5.8. The GPU FEIR discusses that construction and operations under the GPU would involve the transport, use, and/or disposal of hazardous materials; however, compliance with existing regulations would ensure that construction workers and the general public are not exposed to any risks related to hazardous materials during demolition and construction. Furthermore, the GPU FEIR describes that strict adherence to all emergency response plan requirements set by the OCFA would be required. The GPU buildout is expected to result in an increase in the number of hazardous waste generators; however, the GPU FEIR determined that hazardous wastes would be stored, transported, and disposed of in conformance with existing regulations of the USEPA, USDOT, CalRecycle, and other agencies. 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.

The GPU FEIR describes that the City includes sites on a list of hazardous materials compiled pursuant to Government Code Section 65962.5 that could create a significant hazard to the public or the environment. Any development, redevelopment, or reuse on or next to any of these sites would require an 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, and that any proposed development, redevelopment, or reuse would not create a substantial hazard to the public or the environment.

The GPU FEIR also describes that Santa Ana is in the vicinity of an airport or within the jurisdiction of an airport land use plan. Projects approved under the GPU would be required to comply with FAA airspace protection regulations using the AELUP consistency determination process. The GPU FEIR determined that 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. Buildout would not interfere with operation of the City's Emergency Operations Center and would not interfere with operations of emergency response agencies or with coordination and cooperation between such agencies.

Santa Ana is not in a designated fire hazard zone, and the GPU FEIR determined that implementation of the GPU would not expose structures and/or residences to wildland fire danger.

Proposed Specific Plan Project

IMPACT HAZ-1: THE PROJECT WOULD NOT CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR THE ENVIRONMENT THROUGH THE ROUTINE TRANSPORT, USE OR DISPOSAL OF HAZARDOUS MATERIALS.

Less than Significant Impact with Mitigation Incorporated.

Construction

The proposed construction activities, as detailed in Chapter 3.0, *Project Description*, would involve the routine transport, use, and disposal of hazardous materials such as paints, solvents, oils, grease, and caulking during construction activities. In addition, hazardous materials would routinely be needed for fueling and servicing construction equipment on the site. These types of materials are not acutely hazardous, and all storage, handling, use, and disposal of these materials are regulated by federal and state regulations that are implemented by the City of Santa Ana during building permitting for construction activities. As a result, hazardous material impacts related to construction materials would be less than significant.

The Phase I Environmental Site Assessment determined that ACMs and lead-based paint may exist due to the date of construction of the existing buildings. Therefore, asbestos surveys and abatement of ACMs and lead-based paint would be required prior to demolition or renovation of the existing building pursuant to the existing SCAQMD Rule 1403, CalOSHA, and the sections of the California Health and Safety Code, which are described above in the Regulatory Setting. These requirements were developed to protect human health and the environment from the hazards associated with exposure to lead based materials and airborne asbestos fibers. Compliance with these existing regulations, as ensured through the permitting process and included as PPP HAZ-1 and PPP HAZ-2, would reduce impacts related to routine transport and disposal of ACMs and lead-based paint during construction activities to a less than significant level.

In addition, as described in the Phase II Environmental Site Assessments (Appendix K1 and Appendix K2), soil within portions of the Project site exhibits concentrations of TPH-d, TPH-mo, and select SVOCs that exceed residential screening levels. The Phase II Environmental Site Assessments describe that soils with concentrations above residential screening levels and below commercial screening levels could be reused onsite as backfill material for non-residential and non-sensitive areas. However, soils that exceed both residential and commercial screening levels would need to be excavated and removed during Project excavation and grading activities as required by regulation and, as applicable, DTSC, California Integrated Waste Management Board, and/or the RWQCB.

As a result, Mitigation Measure HAZ-1 would be implemented to reduce the potential risks related to accidental release and exposure of people and the environment to the contaminated soils. Mitigation Measure HAZ-1 requires that a qualified consultant prepare and implement a Soil Management Plan (SMP) to be used during earthwork and grading to identify soils that cannot be reused onsite and offsite disposal. Mitigation Measure HAZ-1 requires handling of contaminated soils be conducted pursuant to existing DTSC standards, soil sampling to ensure non-reusable contaminated soils are removed and that applicable USEPA and/or DTSC Screening Levels are not exceeded, and that a certified hazardous waste hauler remove and transport all hazardous materials, as needed, per California Hazardous Waste Regulations to a landfill permitted by the state to accept hazardous materials. Excavated soil containing hazardous substances would be classified as a hazardous waste if they exhibit the characteristics of ignitability, corrosivity, reactivity, or toxicity (CCR, Title 22, Division 4.5, Chapter 11, Article 3). The SMP would detail hazardous materials excavation and disposal methods and requirements pursuant to the regulation of Title 8 of the California Code of Regulations (CalOSHA) and DTSC that regulates the removal, transportation, and disposal of hazardous waste to protect human health and the environment. With implementation of Mitigation Measure HAZ-1, impacts related to hazards from routine transport, use, or disposal of contaminated soils would be less than significant.

Operation

Operation of the proposed Project includes activities related to retail/service commercial, hotel, restaurant, senior continuum care, and multi-family residential development, which generally uses common hazardous materials, including: solvents, cleaning agents, paints, pesticides, batteries, and aerosol cans. Although the proposed Project would utilize common types of hazardous materials, normal routine use of these products pursuant to existing regulations would not result in a significant hazard to the environment, residents, or workers in the vicinity of the proposed Project. Therefore, operational impacts related to routine transport, use, and disposal of hazardous materials during operation of the proposed Project would be less than significant.

IMPACT HAZ-2: THE PROJECT WOULD NOT CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR THE ENVIRONMENT THROUGH REASONABLY FORESEEABLE UPSET OR ACCIDENT CONDITIONS INVOLVING THE RELEASE OF HAZARDOUS MATERIALS INTO THE ENVIRONMENT.

Less than Significant Impact with Mitigation Incorporated.

Construction

Accidental Releases. While the routine use, storage, transport, and disposal of hazardous materials in accordance with applicable regulations during demolition, excavation, grading, and construction activities would not pose health risks or result in significant impacts; improper use, storage, transportation and disposal of hazardous materials and wastes could result in accidental spills or releases, posing health risks to workers, the public, and the environment. Thus, implementation of the proposed Project could potentially result in the accidental release of hazardous materials. The use of best management practices (BMPs) during construction implemented as part of a Stormwater Pollution Prevention Plan (SWPPP) as required by the National Pollution Discharge Elimination System General Construction Permit (and included as PPP WQ-1) would minimize potential adverse effects to workers, the public, and the environment. Construction contract specifications would include strict onsite handling rules and BMPs that include, but are not limited to:

- Establishing a dedicated area for fuel storage and refueling activities that includes secondary containment protection measures and spill control supplies;
- Following manufacturers' recommendations on the use, storage, and disposal of chemical products used in construction;
- Avoiding overtopping construction equipment fuel tanks;
- Properly containing and removing grease and oils during routine maintenance of equipment; and
- Properly disposing of discarded containers of fuels and other chemicals.

Contaminated Soils. As described previously, portions of the Project site contain soil that could be reused onsite as backfill material for non-residential and non-sensitive use areas. Soils that exceed applicable USEPA and/or DTSC Screening Levels would be excavated and removed during Project excavation and grading activities. As a result, Mitigation Measure HAZ-1 is included to require a Soil Management Plan (SMP) be implemented during earthwork and grading to remove and dispose of impacted soils. Mitigation Measure HAZ-1 requires handling of contaminated soils be completed pursuant to existing DTSC and RWQCB standards, soils sampling to ensure contaminated soils are removed, and that a certified hazardous waste hauler remove and transport hazardous materials per California Hazardous Waste Regulations to a landfill permitted by the state to accept hazardous materials. With implementation of Mitigation Measure HAZ-1 impacts related to hazards from contaminated soils would be less than significant.

The Phase I Environmental Site Assessment identifies a potential existing UST on the site. As detailed by the GPU FEIR (RR HAZ-3), UST removals would be conducted in accordance with the California UST Regulations (Title 23, Chapter 16 of the California Code of Regulations), which would be verified through the City's development and construction permitting processes. Any unauthorized release of hazardous materials would require release reporting, initial abatement, and corrective actions that would be completed with oversight from the RWQCB, DTSC, Orange County Health Care Agency Environmental Health Division, and/or SCAQMD. With implementation of existing regulations that would be verified through the City's permitting process and implementation of Mitigation Measures HAZ-1, potential impacts related to contaminated soils would be less than significant.

Asbestos Containing Materials. Buildings on the Project site were constructed in the 1970s when many structures were constructed with what are now recognized as hazardous building materials, such as lead and asbestos. Demolition of these structures could result in the release of hazardous materials. However, asbestos abatement contractors must follow state regulations contained in California Code of Regulations Sections 1529, and 341.6 through 341.14 as implemented by SCAQMD Rule 1403 to ensure that asbestos removed during demolition or redevelopment of the existing buildings is transported and disposed of at an appropriate facility. The contractor and hauler of the material are required to file a Hazardous Waste Manifest which details the hauling of the material from the site and the disposal of it. Section 19827.5 of the California Health and Safety Code requires that local agencies not issue demolition permit until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. These requirements are included as PPP HAZ-1 to ensure that the Project applicant submits verification to the City that the appropriate activities related to asbestos have occurred, which would reduce the potential of impacts related to asbestos to a less than significant level.

Lead Based Materials. Lead-based materials may also be located within existing structures on the Project site. The lead exposure guidelines provided by the U.S. Department of Housing and Urban Development provide regulations related to the handling and disposal of lead-based products. Federal regulations to manage and control exposure to lead-based paint are described in Code of Federal Regulations Title 29, Section 1926.62, and state regulations related to lead are provided in the California Code of Regulations Title 8 Section 1532.1, as implemented by CalOSHA. These regulations cover the demolition, removal, cleanup, transportation, storage and disposal of lead-containing material. The regulations outline the permissible exposure limit, protective measures, monitoring, and compliance to ensure the safety of construction workers exposed to lead-based materials. CalOSHA's Lead in Construction Standard requires project applicants to develop and implement a lead compliance plan when lead-based paint would be disturbed during construction or demolition activities. The plan must describe activities that could emit lead, methods for complying with the standard, safe work practices, and a plan to protect workers from exposure to lead during construction activities. In addition, CalOSHA requires 24-hour notification if more than 100 SF of lead-based paint would be disturbed. These requirements are included as PPP HAZ-2 to ensure that the Project applicant submits verification to the City that the appropriate activities related to lead have occurred, which would reduce the potential of impacts related to lead-based materials to a less than significant level.

Undocumented Hazardous Materials. As described previously, the Project site has a history of various uses that include use and storage of hazardous materials, such as gas stations, vehicle service stations, and dry cleaners. As a result, there is the potential for undocumented hazardous material to exist on site. However, the existing federal and state regulations related to hazardous materials and construction includes procedures to follow in the case hazardous materials are uncovered during construction activities.

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 (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 regulations are detailed previously and include, but are not limited to, the Federal Resource Conservation and Recovery Act, the Occupational Safety and Health Act that is implemented by OSHA, and the Hazardous Materials Transportation Act. Additionally, the California Integrated Waste Management Board and the RWQCB specifically address management of hazardous materials and waste handling in their adopted regulations (CCR, Title 14 and CCR, Title 27). Furthermore, Mitigation Measure HAZ-1, specifically the preparations and implementation of a Soil Management Plan, would reduce impacts related to other soil contamination, not identified previously. Thus, with implementation of existing regulations and Mitigation Measure HAZ-1, impacts related to upset or accident conditions involving the release of hazardous materials into the environment would be less than significant.

Operation

As described above, the risks related to upset or accident conditions involving the release of hazardous materials into the environment would be adequately addressed through compliance with existing federal, state, and local regulations. Development under the proposed Project would involve multi-family, restaurant, and retail commercial uses that would use and store common hazardous materials such as paints, solvents, and cleaning products. Also, building mechanical systems and grounds and landscape maintenance could also use a variety of products formulated with hazardous materials, including fuels, cleaners, lubricants, adhesives, sealers, and pesticides/herbicides.

As described previously, normal routine use of these products pursuant to existing regulations would not result in a significant hazard to the environment, residents, or workers in the vicinity of the proposed Project. In addition, a Water Quality Management Plan (WQMP) is required to be implemented for the proposed Project (as further discussed in Section 5.7, *Hydrology and Water Quality* and included as PPP WQ-2). The BMPs that would be implemented as part of the WQMP would protect human health and the environment should any accidental spills or releases of hazardous materials occur during operation of the proposed Project. Mitigation Measure HAZ-1 requires implementation of a Soil Management Plan to ensure appropriate removal and handling of potentially hazardous materials that could be encountered during site excavation and grading. As a result, operation of the proposed Project would not result in 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, and impacts would be less than significant. Moreover, although impacts of the environment on a project do not require analysis or mitigation under CEQA and the proposed Project would not result in impacts on future users and residents, Mitigation Measure HAZ-2 is included and requires the Project applicant to conduct testing or design buildings to ensure that future users and residents of the proposed Project are not exposed to elevated levels of vapors.

IMPACT HAZ-3: THE PROJECT WOULD NOT EMIT HAZARDOUS EMISSIONS OR HANDLE HAZARDOUS OR ACUTELY HAZARDOUS MATERIALS, SUBSTANCES OR WASTE WITHIN 0.25 MILE OF AN EXISTING OR PROPOSED SCHOOL.

Less than Significant Impact. The Project site is located 0.5-mile west of the closest school, which is Taft Elementary School, located at 500 Keller Avenue, Santa Ana. Thus, the proposed Project would not be within one-quarter mile of an existing school.

Construction

As described in the previous responses, Project construction would involve the use and disposal of various hazardous materials. However, all storage, handling, use, and disposal of these materials are regulated by federal and state regulations that are implemented by the City of Santa Ana during construction permitting,

such as those included as PPP HAZ-1 and PPP HAZ-2. In addition, Mitigation Measure HAZ-1 would ensure that contaminated soils are not released into the environment, as described in Impact HAZ-1 and HAZ-2. Also, the hazardous materials would travel to and from the site from the I-405 freeway and South Bristol Street, which is not in the direction of the school facilities. The freeway is located to the south and the closest school is located to the east of the site. Thus, the hazardous materials handled during construction of the proposed Project would not travel past the school facilities and potential impacts to the schools related to transport of hazardous materials would not occur.

Operation

As described in response to Impact HAZ-1, operation of the proposed Project includes activities related to retail commercial, restaurant, and multi-family residential development, which generally uses common hazardous materials, including: solvents, cleaning agents, paints, pesticides, batteries, and aerosol cans. Normal routine use of these products pursuant to existing regulations would not result in a significant hazard to the environment or school facilities in the vicinity of the proposed Project. Therefore, operational impacts related to nearby schools would be less than significant.

IMPACT HAZ-4: THE PROJECT WOULD NOT BE LOCATED ON A SITE THAT IS INCLUDED ON A LIST OF HAZARDOUS MATERIALS SITES COMPILED PURSUANT TO GOVERNMENT CODE SECTION 65962.5 AND, AS A RESULT, CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR THE ENVIRONMENT.

No Impact. The Phase I Environmental Site Assessment that was conducted included database searches to determine if the Project area or any nearby properties are identified as currently having hazardous materials. The record searches determined that although the site has a history of various uses and identified as previously generating hazardous wastes and clean-up activities, the Project site is not located on or near by a site which is included on a Cortese List of hazardous materials sites pursuant to Government Code Section 65962.5 (Appendix J).

Also, although the Phase I Environmental Site Assessment (Appendix J) identified offsite sources of contamination, such as LUSTs, it did not identify any nearby or surrounding area sites that are included on a Cortese List of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As a result, impacts related to hazards from being located on or adjacent to a hazardous materials site would not occur from implementation of the proposed Project.

IMPACT HAZ-5: THE PROJECT WOULD NOT RESULT IN A SAFETY HAZARD OR EXCESSIVE NOISE FOR A PROJECT LOCATED WITHIN AN AIRPORT LAND USE PLAN, OR WHERE SUCH A PLAN HAS NOT BEEN ADOPTED, BE WITHIN 2 MILES OF A PUBLIC AIRPORT OR PUBLIC USE AIRPORT.

Less than Significant Impact. As described previously, SNA is located approximately 1.4 miles southeast of the Project site, which is located to the west of the primary aircraft approach corridor. The Project site is not located within SNA's Airport Safety Zone and is located outside of the airport's 60 CNEL contours (Figures 5.6-2 and 5.6-3). Table 1 of the Airport Environs Land Use Plan for John Wayne Airport shows that residential land uses outside of the 60 CNEL contour are "normally consistent". However, the Project site is located within the AELUP Notification area for SNA and FAR Part 77 Notification Imaginary Surface area (shown on Figure 5.6-1).

The proposed Project involves redevelopment based on the Specific Plan, which would allow up to 25-story buildings, consistent with the development assumptions set forth in the GPU. The tallest point on the buildings would be approximately 285 feet above the existing ground level, which is approximately 30 feet above sea level. Thus, the top of the tallest point on the buildings would be approximately 315 feet above sea level. Because the Project site is located 1.4 miles northwest of SNA and is not within the Airport's safety zone, the proposed Project would not result in a safety hazard. However, as shown on Figure 5.6-1, the Project site is located within the 200-foot-high imaginary surface area for SNA, and the proposed Project includes structures of 25-stories that would extend to approximately 315 feet above sea level. Therefore, FAA notification for the proposed Project is required.

As shown on Figure 5.6-3, the Project site is located outside of the actual (2019) SNA 60 CNEL noise contours, which indicates that noise from aircraft on the Project site is below 60 dB CNEL and is outside of the noise impact area related to SNA operations (also shown on Figure 5.6-2). Thus, impacts related to hazardous noise conditions from operation of SNA would be less than significant.

In addition, the proposed Project would not result in hazards related to excessive glare, light, steam, smoke, dust, or electronic interference. Exterior lighting fixtures and security lighting would be installed in accordance with Municipal Code Division 3, Building Security Regulations, which includes specifications for shielding and intensity of security lighting. In addition, the proposed Project would not use highly reflective surfaces, and does not include large areas of glass on the buildings, as shown in the Project elevations, included in Chapter 3.0, *Project Description*. Therefore, the proposed Project would not generate substantial sources of glare.

As described in Section 5.1, *Air Quality*, operation of the proposed residential and commercial uses would not generate substantial quantities of steam, smoke, or dust emissions. As described, dust emissions are regulated by SCAQMD requirements and construction related air quality emissions that could include steam, smoke, and dust emissions would be less than significant with implementation of the standard SCAQMD Rules listed in Section 5.1, *Air Quality*.

The proposed Project consists of residential and commercial uses that would include the use of typical electronics, such as computers, televisions, and other electronics with wireless capability. These types of electronics are currently being used by the existing industrial land uses on the site, and other uses in the vicinity of the site. The new residential and commercial uses on the site would use similar technology that does not cause electronic interference that could affect aircraft. Thus, impacts related to electronic interference with operations of the SNA would not occur.

Due to the nature of the required City approvals (i.e., the proposed Specific Plan and zoning amendment), the City of Santa Ana is required, pursuant to Public Utilities Code Section 21676, to refer the proposed Project to the ALUC for ALUC review. The proposed Project would comply with this ALUC notification and all other applicable rules and regulations as they pertain to SNA and airport safety. Overall, because the

proposed Project is not located within the SNA Airport Safety Zone or the SNA 60 CNEL noise contour; and it would not result in hazards related to excessive glare, light, steam, smoke, dust, or electronic interference, the proposed Project would not introduce a safety hazard associated with airport operations for people residing, working, and visiting the Project site. Thus, Project-related hazard and noise impacts associated with SNA operations would be less than significant.

IMPACT HAZ-6: THE PROJECT WOULD NOT IMPAIR IMPLEMENTATION OF, OR PHYSICALLY INTERFERE WITH, AN ADOPTED EMERGENCY RESPONSE PLAN OR EMERGENCY EVACUATION PLAN.

Less than Significant Impact. The OCFA (via contract with the City) and the City of Santa Ana Police Department provide coordination of emergency response within the City.

Construction

The proposed construction activities, including equipment and supply staging and storage, would occur within the Project site and would not restrict access of emergency vehicles to the Project site or adjacent areas. As provided in the Project Description, construction of the proposed Project would be phased, and would concentrate construction within each phased area of the proposed Project, which would provide separation and or division between construction areas and operational areas and provide for emergency response to evacuation.

The proposed Project includes construction of new driveways to the Project site, new sidewalks, and utility improvements and connections that would require the temporary closure of travel lanes, but full roadway closure and traffic detours are not expected to be necessary. Construction activities that may temporarily restrict vehicular traffic would be required to implement adequate measures to facilitate the safe passage of persons and vehicles through/around any required temporary road restrictions in accordance with Section 503 of the California Fire Code (Title 24, California Code of Regulations, Part 9), which requires that prior to any activity that would encroach into a right-of-way, the area of encroachment be safeguarded through the installation of safety devices that would be specified by the City's Building and Safety Division during the construction permitting process to ensure that construction activities would not physically interfere with emergency access or evacuation. Therefore, implementation of the proposed Project through the City's permitting process would reduce potential construction related physical interference impacts to emergency access to a less than significant level.

Operation

The proposed Project would include vehicular access to the site from driveways from adjacent existing roadways, many of which currently provide access to the site. As described in Section 5.13, *Transportation*, these driveways would provide adequate and safe circulation to, from, and through the Project site and would provide a variety of routes for emergency responders to access the Project site and surrounding areas.

During operation of the proposed Project, residents and commercial building tenants would be required to maintain adequate emergency access for emergency vehicles as required and verified by the City and the OCFA. Because the proposed Project is required to comply with all applicable City codes, as verified by the City and OCFA, potential impacts related to emergency evacuation or emergency response plans would be less than significant.

IMPACT HAZ-7: THE PROJECT WOULD NOT EXPOSE PEOPLE OR STRUCTURES EITHER DIRECTLY OR INDIRECTLY TO A SIGNIFICANT RISK OF LOSS, INJURY, OR DEATH INVOLVING WILDFIRES.

No Impact. The Project site is located within an urban developed area and is not located within an identified wildland fire hazard area and is not an area where residences are intermixed with wildlands. The City's GPU FEIR and the CalFire Orange County High Fire Hazard Severity Zones map shows that the site is not located within a fire hazard zone. In addition, implementation of the proposed Project would be required to adhere to the following chapters of the City's Municipal Code to reduce potential fire hazards: Chapter 8.2 Uniform Building Code, Chapter 8.4 Uniform Mechanical Code, Chapter 8.5 National Electric Code, and Chapter 14 City of Santa Ana Fire Code. Additionally, the proposed Project would be developed in compliance with any further guidelines from OCFA related to fire prevention and is subject to approval by the City's Building Division. Therefore, the proposed Project would not expose people or structures to a significant risk of loss, injury, or death from wildfires.

5.6.7 CUMULATIVE IMPACTS

The proposed Project's contribution to cumulative impacts to hazards and hazardous was analyzed in context with past and foreseeably future projects in the City of Santa Ana and adjacent areas in Costa Mesa that are similarly affected by hazardous soil conditions, LUST conditions, asphalt contamination, and asbestos and lead containing building materials. Cumulative redevelopment and land use changes within the City would have the potential to expose future area residents, employees, and visitors to chemical hazards through redevelopment of sites and structures that may be contaminated from either historic or ongoing uses. The severity of potential hazards for individual projects would depend upon the location, type, and size of development and the specific hazards associated with individual sites. As shown on Figure 5-1, the closest cumulative development project is located across Bristol Street at the southeast corner of Bristol Street and MacArthur Boulevard, approximately 129 feet from the Project site. The cumulative project across Bristol Street is a renovation of the existing Chick-Fil-A restaurant and would not include extensive redevelopment of the area. It is unlikely that similar construction activities involving hazardous materials would occur simultaneously that could have the potential to cumulatively contribute to an impact. All hazardous materials users and transporters, as well as hazardous waste generators and disposers are subject to regulations that require proper transport, handling, use, storage, and disposal of such materials to ensure public safety, which are verified by the City during the construction and development permitting process. Thus, if hazardous materials are found to be present on present or future project sites appropriate remediation activities would be required pursuant to standard federal, state, and regional regulations. As detailed, Mitigation Measure HAZ-1 would be implemented to ensure that hazardous soil from the site would be handled and disposed of pursuant to existing regulations, which would reduce the potential of the proposed Project to result in a hazard that could cumulatively combine. Further, compliance with the relevant federal, state, and local regulations during the construction and operation of related projects would ensure that cumulative impacts from hazardous materials and emergency response/evacuation would be less than significant.

5.6.8 EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS, OR POLICIES

Existing Regulations

Federal

- United States Code of Federal Regulations Title 42, Sections 6901 et seq.: Resource Conservation and Recovery Act

- United States Code of Federal Regulations Title 42, Sections 11001 et seq.: Emergency Planning & Community Right to Know Act
- United States Code of Federal Regulations Title 49, Parts 101 et seq.: Regulations implementing the Hazardous Materials Transportation Act (United States Code of Federal Regulations Title 49 Sections 5101 et seq.)
- United States Code of Federal Regulations Title 15, Sections 2601 et seq.: Toxic Substances Control Act
- US Environmental Protection Agency Asbestos Hazard Emergency Response Act, 40 United States Code of Regulations Section 763

State

- California Occupational Safety and Health Administration Regulation 29, CFR Standard 1926.62
- California Code of Regulations Title 24, Part 2: California Building Code
- California Code of Regulations Title 24, Part 9: California Fire Code
- California Code of Regulations Title 8, Section 1532.1, Lead in Construction Standard
- California Code of Regulations Title 8, Section 1529: Asbestos
- Title 8 of the California Code of Regulations, Section 1532.1: Lead

Regional

- South Coast Air Quality Management District Rule 1403: Asbestos

Plans, Program and Policies (PPPs)

The following Plans, Programs, and Policies (PPP) related to hazards and hazardous materials are incorporated into the proposed Project and would reduce impacts related to hazards and hazardous materials. These actions will be included in the proposed Project's mitigation monitoring and reporting program (MMRP):

PPP HAZ-1: SCAQMD Rule 1403. Prior to issuance of demolition permits, the Project applicant shall submit verification to the City Building and Safety Division that an asbestos survey has been conducted at all existing buildings located on the Project site. If asbestos or asbestos containing material is found, the Project applicant shall follow all procedural requirements and regulations of the South Coast Air Quality Management District (SCAQMD) Rule 1403. Rule 1403 regulations require that the following actions be taken: notification of SCAQMD prior to construction activity, asbestos removal in accordance with prescribed procedures, placement of collected asbestos in leak-tight containers or wrapping, and proper disposal.

PPP HAZ-2: Lead. Prior to issuance of demolition permits, the Project applicant shall submit verification to the City Building and Safety Division that a lead-based paint survey has been conducted at all existing buildings located on the Project site. If lead-based paint is found, the Project applicant shall follow all procedural requirements and regulations for proper removal and disposal of the lead-based paint. CalOSHA has established limits of exposure to lead contained in dusts and fumes. Specifically, CCR Title 8, Section 1532.1 provides for exposure limits, exposure monitoring, and respiratory protection, and mandates good working practices by workers exposed to lead.

PPP WQ-1: NPDES/SWPPP. Prior to issuance of any grading or demolition permits, the applicant shall provide the City Building and Safety Division evidence of compliance with the National Pollutant Discharge Elimination System (NPDES) requirement to obtain a construction permit from the State Water Resource Control Board (SWRCB). The permit requirement applies to grading and construction sites of one acre or larger. The Project applicant/proponent shall comply by submitting a Notice of Intent (NOI) and by

developing and implementing a Stormwater Pollution Prevention Plan (SWPPP) and a monitoring program and reporting plan for the construction site.

PPP WQ-3: WQMP. Prior to the approval of the Grading Plan and issuance of Grading Permits a completed Water Quality Management Plan (WQMP) shall be submitted to and approved by the City Building and Safety Division. The WQMP shall identify all Post-Construction, Site Design, Source Control, and Treatment Control Best Management Practices (BMPs) that will be incorporated into the development project in order to minimize the adverse effects on receiving waters.

5.6.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Without mitigation, Impacts HAZ-1 and HAZ-2 would be **potentially significant**:

Upon implementation of regulatory requirements Impacts HAZ-3, HAZ-4, HAZ-5, HAZ-6, and HAZ-7 would be either less than significant or have no potential impact.

5.6.10 MITIGATION MEASURES

GPU FEIR Mitigation Measures

No mitigation measures related to hazards and hazardous materials were included in the GPU FEIR.

Proposed Specific Plan Project Mitigation Measures

Mitigation Measure HAZ-1: Prior to issuance of a grading permit, a Soil Management Plan (SMP) shall be prepared by a qualified hazardous materials consultant and shall detail procedures and protocols for excavation and disposal of onsite hazardous materials, including:

- Any subsurface materials exposed during construction activities that appear potentially contaminated, based on either visual observation or suspect odors, shall be segregated, stockpiled, and tested for potential contamination. If contamination is found to be present per the California Department of Toxic Substances Control (DTSC) Environmental Screening Levels (ESLs) for the applicable use, and cannot be reused on the Project site, it shall be transported by a certified hazardous waste hauler to a landfill permitted by the state to accept hazardous materials and disposed of per California Hazardous Waste Regulations.
- A Health and Safety Plan (HASP) shall be prepared for each contractor that addresses potential safety and health hazards and includes the requirements and procedures for employee protection. The HASP shall also outline proper soil handling procedures and health and safety requirements to minimize worker and public exposure to hazardous materials during construction.
- All SMP measures shall be printed on the construction documents, contracts, and project plans prior to issuance of grading permits.

Mitigation Measure HAZ-2: Prior to issuance of a building permit for a future building within the Specific Plan area, the Project applicant shall, at its election, undertake one of the following three activities: (1) perform a subsurface soil vapor assessment demonstrating that vapor concentrations are within established limits for vapor intrusion into future buildings; (2) prepare a human health risk assessment (HHRA) demonstrating that documented levels of soil vapor do not represent a significant health risk to occupants of the future buildings; or (3) submit plans for a vapor intrusion mitigation system (VIMS) to be installed beneath the foundation of the future buildings. The Project applicant may rely on different measures of the foregoing options in different parts of the Specific Plan area.

5.6.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The mitigation measure and existing regulatory programs described previously would reduce potential impacts associated with hazardous materials for Impact HAZ-1 and HAZ-2 to a level that is less than significant. Therefore, no significant unavoidable adverse impacts related to hazards and hazardous materials would occur.

REFERENCES

- CalFire Orange County High Fire Hazard Severity Zones. Accessed: https://osfm.fire.ca.gov/media/6739/fhszl_map30.pdf
- City of Santa Ana General Plan. April 2022. Accessed: <https://www.santa-ana.org/general-plan-documents/>
- City of Santa Ana Municipal Code. Accessed: https://library.municode.com/ca/santa_ana
- Santa Ana General Plan Update Final Recirculated Program Environmental Impact Report. October 2021. Accessed: <https://www.santa-ana.org/general-plan-environmental-documents/>
- Orange County Airport Land Use Commission, *Airport Environs Land Use Plan for John Wayne Airport*. Revised April 2008. Accessed: https://files.ocair.com/media/2021-02/JWA_AELUP-April-17-2008.pdf?VersionId=cB0byJdad9OuY5im7Oaj5aWaT1FS.vD
- OC Health Care Agency Environmental Health Division. Accessed: <https://ochealthinfo.com/about-hca/public-health-services/environmental-health-division/hazardous-materials>
- Phase I Environmental Site Assessment Report (Phase I). Revised April 2023. Prepared by ENGEO. (Appendix J)
- Phase II Environmental Site Assessment Report (Phase II North). Revised April 2023. Prepared by ENGEO. (Appendix K1)
- Phase II Environmental Site Assessment Report (Phase II South). Revised April 2023. Prepared by ENGEO. (Appendix K2)

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5.7 Hydrology and Water Quality

5.7.1 INTRODUCTION

This section describes the environmental and regulatory settings and identifies potential impacts for hydrology and water quality resources. The analysis in this section is based on the following:

- *City of Santa Ana General Plan Update,*
- *City of Santa Ana General Plan FEIR,*
- *City of Santa Ana Municipal Code,*
- *City of Santa Ana 2020 Urban Water Management Plan,*
- *City of Santa Ana (2018) Storm Drain Master Plan,*
- *Preliminary Geotechnical Investigation Report (Appendix G),*
- *Phase I Environmental Site Assessment (Phase I) (Appendix J),*
- *Phase II ESA for the northern portion of the site (Phase II North) (Appendix K1),*
- *Phase II ESA for the southern portion of the site (Phase II South) (Appendix K2)*
- *Preliminary Hydrology Report (Appendix L),*
- *Preliminary Water Quality Management Plan (Appendix M), and*
- *Storm Drain Master Plan Drainage Assessment (Appendix R).*

5.7.2 REGULATORY SETTING

Clean Water Act

The U.S. Environmental Protection Agency (USEPA) is the federal agency that implements the Clean Water Act (CWA), which is responsible for water quality management. The purpose of the CWA is to protect and maintain the quality and integrity of the nation's waters by requiring states to develop and implement state water plans and policies.

CWA Section 303, Total Maximum Daily Loads (TMDL): Section 303 of the CWA requires states to establish water quality standards consisting of designated beneficial uses of water bodies and water quality standards to protect those uses for all Waters of the United States. Under Section 303(d) of the CWA, states, territories, and authorized tribes are required to develop lists of impaired waters. Impaired waters are waters that do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. The law requires that these jurisdictions establish a priority ranking for listed waters and develop action plans to improve their water quality. This process includes development of Total Maximum Daily Loads (TMDL) that set discharge limits for non-point source pollutants.

A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards. The Ducheny Bill (AB 1740) requires the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs) to post this list and to provide an estimated completion date for each TMDL.

CWA Section 402, National Pollutant Discharge Elimination System (NPDES) Permit: Direct discharges of pollutants into Waters of the United States are not allowed, except in accordance with the NPDES program established in Section 402 of the CWA. The main goal of the NPDES program is to protect human health and the environment. Pursuant to the NPDES program, permits that apply to stormwater discharges from

municipal storm drain systems, specific industrial activities, and construction activities (one acre [ac] or more) have been issued. NPDES permits establish enforceable effluent limitations on discharges, require monitoring of discharges, designate reporting requirements, and require the permittee to include use of Best Management Practices (BMPs). Industrial (point source) stormwater permits are required to meet effluent limitations, while municipal and construction permits are governed by the maximum extent practicable (MEP) or the Best Available Technology (BAT)/Best Control Technology (BCT) application of BMPs. The SWRCB is required to develop state-specific permits that comply with the NPDES Permit.

Porter-Cologne Act

The Porter-Cologne Water Quality Control Act of 1969, codified as Division 7 of the California Water Code, authorizes the SWRCB to provide comprehensive protection for California's waters through water allocation and water quality protection. The SWRCB implements the requirements of CWA and establishes water quality standards that have to be set for certain waters by adopting water quality control plans under the Porter-Cologne Act. The Porter-Cologne Act establishes the responsibilities and authorities of the nine RWQCBs, including preparing water quality plans for areas in the region, and identifying water quality objectives and waste discharge requirements (WDRs). Water quality objectives are defined as limits or levels of water quality constituents and characteristics established for reasonable protection of beneficial uses or prevention of nuisance. Beneficial uses consist of all the various ways that water can be used for the benefit of people and/or wildlife.

The Project site is within the Santa Ana River Watershed, Newport Bay sub-watershed. The Santa Ana River Basin Water Quality Control Plan was most recently updated in 2019. This Basin Plan gives direction on 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

A key policy of California's water quality program is the State's Anti-Degradation Policy. This policy, formally known as the Statement of Policy with Respect to Maintaining High Quality Waters in California (SWRCB Resolution No. 68-16), restricts degradation of surface and ground waters. In particular, this policy protects water bodies where existing quality is higher than necessary for the protection of beneficial uses. Under the Anti-Degradation Policy, any actions that can adversely affect water quality in all surface and ground waters must (1) be consistent with maximum benefit to the people of the state; (2) not unreasonably affect present and anticipated beneficial use of the water; and (3) not result in water quality less than that prescribed in water quality plans and policies (i.e., will not result in exceedances of water quality objectives).

California Construction General Permit

The state of California adopted a Statewide 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). The latest Construction General Permit amendment will become effective September 1, 2023. The Construction General Permit regulates construction site stormwater management. 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 Construction General Permit for discharges of stormwater associated with construction activity. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground, such as stockpiling or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility.

To obtain coverage under this permit, project operators must electronically file Permit Registration Documents, which include a Notice of Intent, a Stormwater Pollution Prevention Plan (SWPPP), and other

compliance-related documents, including a risk-level assessment for construction sites, an active stormwater effluent monitoring and reporting program during construction, rain event action plans, and numeric action levels for pH and turbidity as well as requirements for qualified professionals to prepare and implement the plan. An appropriate permit fee must also be paid to the SWRCB.

The Construction General Permit requires project applicants to file a Notice of Intent with the SWRCB to discharge stormwater, and to prepare and implement a SWPPP for projects that will result in more than 1 acre of soil disturbance. The SWPPP would include a site map, description of stormwater discharge activities, and best management practices (BMPs) taken from the menu of BMPs set forth in the California Stormwater Quality Association BMP Handbook that will be employed to prevent water pollution. The SWPPP is required to include BMPs that will be used to control soil erosion and discharges of other construction-related pollutants (e.g., petroleum products, solvents, paints, cement) that could contaminate nearby water resources. It must demonstrate compliance with local and regional erosion and sediment control standards, identify responsible parties, provide a detailed construction timeline, and implement a BMP monitoring and maintenance schedule. The Construction General Permit also requires the SWPPP to identify BMPs that will be implemented to reduce controlling potential chemical contaminants from impacting water quality. Types of BMPs include erosion control (e.g., preservation of vegetation), sediment control (e.g., fiber rolls), non-stormwater management (e.g., water conservation), and waste management. The SWPPP is also required to include BMPs to reduce pollutants in stormwater discharges after all construction phases have been completed at the site (post-construction BMPs).

California Water Resources Control Board Low Impact Development Policy

The SWRCB adopted the Low Impact Development (LID) Policy which, at its core, promotes the idea of “sustainability” as a key parameter to be prioritized during the design and planning process for future development. The SWRCB has directed its staff to consider sustainability in all future policies, guidelines, and regulatory actions. LID is a proven approach to manage stormwater. The RWQCBs are advancing LID in California in various ways, including provisions for LID requirements in renewed Phase I municipal stormwater NPDES permits.

Santa Ana Regional Water Quality Control Board Water Quality Control Plan

The City of Santa Ana is within the jurisdiction of the Santa Ana RWQCB. The RWQCB sets water quality standards for all ground and surface waters within its region through implementation of a Water Quality Control Plan (Basin Plan). The Basin Plan describes existing water quality conditions and establishes water quality goals and policies. The Basin Plan is also the basis for the Regional Board’s regulatory programs. To this end, the Basin Plan establishes water quality standards for all the ground and surface waters of the region. The term “water quality standards,” as used in the Federal Clean Water Act, includes both the beneficial uses of specific water bodies and the levels of quality which must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions that are necessary to achieve and maintain target water quality standards. The goal of the Basin Plan is to protect public health and welfare and maintain or enhance water quality and potential beneficial uses of the water.

Santa Ana Regional Municipal Separate Storm Sewer System Permit

The Municipal Separate Storm Sewer System (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 Permit’s various permittees, which include Orange County, Orange County Flood Control District, and the incorporated cities within Orange County including the City of Santa Ana. When discharged, urban runoff (or stormwater) has the potential to mix with and carry various pollutants into receiving waters. The MS4 Permit lists allowable and unallowable discharges and requires

implementation of LID infrastructure, which are engineered facilities that are designed to retain and/or biotreat runoff on the project site. Developments that qualify as a development or redevelopment project, which includes the proposed project as specified by criteria in the MS4 Permit, 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, and post-construction BMPs are required to be implemented. The MS4 Permit requires priority projects to infiltrate, harvest and use, evapotranspire, or biotreat/biofilter, the 85th percentile of a 24-hour storm event (Design Capture Volume). The MS4 Permit also requires the evaluation and use of LID features using the following hierarchy of treatment: infiltration, evapotranspiration, harvest/reuse, and biotreatment.

Biotreatment BMPs are a broad class of LID BMPs that reduce stormwater volume to the maximum extent practicable, treat stormwater using a suite of treatment mechanisms characteristic of biologically active systems, and discharge water to the downstream storm drain system or directly to receiving waters. Treatment mechanisms include media filtration (though biologically-active media), vegetative filtration (straining, sedimentation, interception, and stabilization of particles resulting from shallow flow through vegetation), general sorption processes (i.e., absorption, adsorption, ionexchange, precipitation, surface complexation), biologically-mediated transformations, and other processes to address both suspended and dissolved constituents. 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). This Permit regulates construction dewatering and discharges of groundwater to surface waters during excavation. This permit specifies the discharge prohibitions, receiving water limitations, monitoring and reporting program requirements, and general compliance determination criteria for groundwater dewatering during construction activities. Dischargers are required to collect and analyze representative groundwater samples for all constituents listed in the Groundwater Discharge Permit. Based on the results, dischargers would be required 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.

County of Orange Drainage Area Management Plan

The Drainage Area Management Plan (DAMP) is the County's primary policy, planning and implementation document for NPDES Stormwater Permit compliance. The DAMP describes the agreements, structures and programs that:

- Provide the framework for the program management activities and plan development;
- Provide the legal authority for prohibiting unpermitted discharges into the storm drain system and for requiring BMPs in new development and significant redevelopment;
- Ensure that all new development and significant redevelopment incorporates appropriate Site Design, Source Control, and Treatment Control BMPs to address specific water quality issues;
- Ensure that construction sites implement control practices that address construction related pollutants including erosion and sediment control and onsite hazardous materials and waste management.

The DAMP requires that new development and significant redevelopment projects (or priority projects), such as the proposed Project, develop and implement a Preliminary WQMP that includes BMPs and LID design features that would provide onsite treatment of stormwater to prevent pollutants from onsite uses from leaving the site.

City of Santa Ana General Plan

The following objectives and policies from the existing General Plan Update (GPU) Conservation Element are relevant to the proposed Project:

Mobility Element

- POLICY M-1.8** Consider air and water quality, noise reduction, neighborhood character, and street-level aesthetics when making improvements to travelways.
- 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.

Public Services Element

- 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.

Conservation Element

- GOAL CN-4:** Conserve and replenish existing and future water resources.
- POLICY CN-4.2** Encourage public and private property owners to plant native or drought-tolerant vegetation.
- POLICY CN-4.4** Promote irrigation and rainwater capture systems that conserve water to support a sustainable community.
- 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.

Open Space Element

- 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.

Safety Element

- GOAL S-1:** Protect life and minimize property damage, social and economic disruptions caused by flood and inundation hazards.

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.

City of Santa Ana Municipal Code

Section 18-155; Prohibition on Illicit Connections and Prohibited Discharges: This code section provides regulations for stormwater connections, prohibits certain discharge, and prohibits illicit connections related to stormwater.

Section 18-156; Control of Urban Runoff: This code section states that all new development and significant redevelopment within the City shall be undertaken in accordance with the County DAMP, 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. 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.

5.7.3 ENVIRONMENTAL SETTING

Watershed

The Project site is in the Santa Ana River Watershed and in the Newport Bay sub-watershed (as shown on Figure 5.9-1 of the GPU FEIR). The Santa Ana River Watershed includes much of Orange County, much of western Riverside County, part of southwestern San Bernardino County, and a small portion of Los Angeles County. The watershed is bounded on the south by the Santa Margarita watershed, on the east by the Salton Sea and Southern Mojave watersheds, and on the north and west by the Mojave and San Gabriel watersheds, respectively. The watershed covers approximately 2,800 square miles in area with about 700 miles of rivers. The Santa Ana River extends 96 miles from the San Bernardino Mountains in San Bernardino County to the Pacific Ocean at the boundary between the Cities of Huntington Beach and Newport Beach.

The Santa Ana Watershed is subdivided into several smaller watersheds, and as mentioned above, the Project site is in the Newport Bay sub-watershed. The Newport Bay sub-watershed spans 152 square miles from the foothills of the Santa Ana Mountains in the north to the Pacific Ocean in the south and from the Cities of Santa Ana and Costa Mesa on the west to the City of Lake Forest on the east. The Project site drains to the Santa Ana – Gardens - Delhi Channel and then to the Newport Back Bay.

Watershed Impairments: Section 303(d) of the Federal CWA requires states to identify water bodies that are “impaired,” or those that do not meet water quality standards and are not supporting their beneficial uses. Total Maximum Daily Loads (TMDLs) are then designed to serve as pollution control plans for these specific pollutants.

The Santa Ana – Gardens - Delhi Channel and the Newport Back Bay are included on the Section 303(d) List of Water Quality Impairments for: chlordane, DDT, nutrients, PCBs, sedimentation, malathion, toxicity, copper, indicator bacteria (WQMP Appendix M).

Groundwater Basin

The Orange County Basin underlies an area of approximately 350 square miles, bordered by the Coyote and Chino Hills to the north, the Santa Ana Mountains to the northeast, the Pacific Ocean to the southwest,

and terminates at the Orange County line to the northwest, where the aquifer system continues to the Central Basin in Los Angeles County (2020 Santa Ana Urban Water Management Plan [UWMP 2020]). The OC Basin is recharged primarily by four sources; local rainfall, storm and base flows from the Santa Ana River, purchased MWD imported water; and highly treated recycled wastewater. Basin recharge occurs largely in four recharge basins that are in or adjacent to the City of Anaheim.

The Orange County Water District (OCWD) manages the Orange County Basin through a Basin Production Percentage (BPP) that is determined each water year based on groundwater conditions, availability of imported water supplies, water year precipitation, Santa Ana River runoff, and basin management objectives. While there is no legal limit as to how much an agency pumps from the Orange County Basin, there is a financial disincentive to pump above the BPP. For example, if the BPP is set at 75 percent, all pumpers within the Basin, including the City, can supply 75 percent of their water needs from groundwater supplies at a cost significantly less than the cost of imported water. If groundwater production is equal to or less than the BPP (i.e., less than 75 percent in the example above), all producers within the Basin pay a replenishment assessment (RA) fee which is used to fund groundwater replenishment and recharge programs aimed at ensuring the long-term viability and stability of the Basin. In the 2021-22 water year, the BPP was 77 percent. The 2020 Santa Ana Urban Water Management Plan (UWMP 2020) describes that OCWD anticipates being able to sustain the BPP at 85 percent starting in 2025.

The Orange County Basin is designated as a medium-priority basin, primarily due to heavy reliance on the Basin's groundwater as a source of water supply. The Basin has operated within its sustainable yield over a period of at least 10 years without experiencing significant and unreasonable (1) lowering of groundwater levels, (2) reduction in storage, (3) water quality degradation, (4) seawater intrusion, (5) inelastic land subsidence, or (6) depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water. In addition, the Orange County Basin has not been in conditions of critical overdraft, and stored groundwater increased by 36,000 acre-feet (AF) between June 2019 and June 2020 (UWMP 2020).

Groundwater Supply

Groundwater from the Orange County Basin provides approximately 76 percent of the City's water supply (2019-2020). The remaining supply comes from the Metropolitan Water District (23 percent) and recycled water (1 percent). As described by the UWMP, the water production capability of the basin has increased as a result of operation of the Groundwater Replenishment System in Fountain Valley, which turns wastewater into potable drinking water that is used for basin replenishment. The system increases local low-cost water supply reliability. The eastern portion of the Project site is located within the South Basin Groundwater Protection Project.

Groundwater Conditions

Per the Preliminary Geotechnical Investigation Report (Appendix G), the historic highest groundwater at the site has been mapped at a depth of about 5 feet below ground surface (bgs). Groundwater in August 2022 was encountered between a depth of 12 feet and 16 feet bgs.

The Phase II Environmental Site Assessments conducted groundwater testing, which identified Methyl tert-butyl ether that exceeded the corresponding residential Maximum Contaminant Level in one sample located at the northeast corner of the Project site at approximately 23.2 feet bgs, which is likely attributable to an offsite and upgradient LUST cleanup site, located offsite and northeast of the Project site. In addition, a groundwater sample from the southern central portion of the Project site identified a Total Petroleum Hydrocarbons - diesel concentration from an offsite source that exceeds the corresponding screening levels for "tap water" (drinking water).

Storm Drainage Facilities

The Project site is currently 90 percent impervious and 10 percent pervious (WQMP Appendix M). The existing topography of the project site is relatively flat, with storm water draining via surface-flow to existing gutters and onsite area drain systems. Drainage from the Project site currently flows to storm drains in South Plaza Drive, Sunflower Avenue, Bristol Street, and MacArthur Boulevard; and then to the Orange County Flood Control District Santa Ana – Gardens - Delhi Channel that drains to Newport Bay and the Pacific Ocean.

Soil Infiltration

Onsite soils infiltration testing was performed during preparation of the Preliminary Geotechnical Investigation Report (Appendix G), which determined that the upper 25 to 30 feet of soils consist predominantly of medium to stiff lean clay (CL) and fat clay (CH) and based on percolation tests results are not suitable for infiltration. The testing identified infiltration rates of <0.10 inches per hour which is a low infiltration rate and considered infeasible to support drainage on the Project site. The eastern portion of the Project site is located within the South Basin Groundwater Protection Project, which prohibits infiltration on the Project site.

Flood Zone, Tsunami, Seiche

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) for the Project area (06059C0279J) shows that the Project site is located within “Zone X,” which is an area of minimal flood hazard potential outside of the 0.2 percent annual chance flood.

A tsunami is a series of ocean waves caused by a sudden displacement of the ocean floor, most often due to earthquakes. The Project site is over 5.9 miles from the Pacific Ocean, and outside of the Tsunami Hazard Zone identified by the California Department of Conservation (DOC 2023).

A seiche is a surface wave created when a body of water is shaken, usually by earthquake activity. Seiches are of concern relative to water storage facilities because inundation from a seiche can occur if the wave overflows a containment wall, such as the wall of a reservoir, water storage tank, dam, or other artificial body of water. There are no water bodies in the vicinity of the Project site, and no existing risks related to seiche flood hazards exist on or near the site.

5.7.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

- WQ-1 Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;
- WQ-2 Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- WQ-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 result in a substantial erosion or siltation on- or off-site;
- WQ-4 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or 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;

- WQ-5 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;
- WQ-6 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;
- WQ-7 In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or
- WQ-8 Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

5.7.5 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. 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 recognizes that development under the proposed Project would be required to comply with relevant Federal, State, and regional laws and regulations that are designed to ensure compliance with applicable water quality standards and waste discharge requirements. Because the regional and local regulations related to water quality standards have been developed to reduce the potential of pollutants in the water resources (as described in the Regulatory Setting Section above), and are implemented to specific waterbodies, such as 303(d) TMDL requirements, or development projects such as grading and construction permit regulations, implementation of all relevant water quality and hydrology requirements would limit the potential of the proposed Project to a less than significant impact.

5.7.6 ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR addressed impacts related to hydrology and water quality in Chapter 5.9. The GPU FEIR describes that the South Bristol Street focus area is within the Newport Bay Watershed. The GPU FEIR discussed that projects built pursuant to the GPU would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality, due to compliance with the Construction General Permit Water Quality Order 2009-0009-DWQ. Under this permit, projects must prepare a SWPPP which requires implementation of BMPs to control runoff; therefore, impacts to water quality would be less than significant. Development pursuant to the GPU would increase the demand on groundwater use but would not impede sustainable groundwater management of the basin. The OCWD manages groundwater extraction and recharge; and has mechanisms in place to prevent overdraft. Additionally, population growth projections and the subsequent increase in water demand are within the projected water demands determined by OCWD. The GPU FEIR determined that development pursuant to the GPU would increase the amount of pervious surfaces in the plan area, and could increase the rate or amount of surface runoff in some focus areas in a manner which would result in flooding offsite or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems. However, development projects can be required install onsite detention systems as to not result in substantial increases

in runoff. In addition, GPU policies include expansion and maintenance of existing storm drain facilities; therefore, impacts related to stormwater drainage capacity would be less than significant.

The GPU FEIR determined that in flood hazard, tsunami, or seiche zones, development pursuant to the GPU would not risk release of pollutants due to project inundation or impede or redirect flood flows, with compliance to applicable Municipal Code requirements and maintenance of flood control infrastructure. In addition, the GPU FEIR determined that development pursuant to the GPU would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. No conflicts would arise with the Santa Ana River Basin Water Quality Control Plan, as development projects must comply with provisions of the Orange County MS4 Permit, General Industrial Permit, and applicable state and Municipal Code requirements. The GPU FEIR also determined that no conflicts would arise with the Orange County Groundwater Basin as the City would manage withdrawals so as to not overdraft groundwater supplies.

Proposed Specific Plan Project

IMPACTS WQ-1: THE PROJECT WOULD NOT VIOLATE ANY WATER QUALITY STANDARDS OR WASTE DISCHARGE REQUIREMENTS OR OTHERWISE SUBSTANTIALLY DEGRADE SURFACE OR GROUND WATER QUALITY.

Less than Significant Impact.

Construction

Implementation of the proposed Project includes the phased demolition of the existing structures and pavement, site preparation, grading and excavation of subterranean parking structures, stockpiling of materials, import and export of soils and debris, construction of new buildings, and infrastructure improvements, and landscaping activities would expose and loosen sediment and building materials, which have the potential to mix with stormwater and urban runoff and degrade surface and receiving water quality.

Also, construction generally requires the use of heavy equipment and construction-related materials and chemicals, such as concrete, cement, asphalt, fuels, oils, antifreeze, transmission fluid, grease, solvents, and paints. In the absence of proper controls, these potentially harmful materials could be accidentally spilled or improperly disposed of during construction activities and could wash into and pollute surface waters or groundwater, resulting in a significant impact to water quality.

Pollutants of concern during construction activities generally include sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals. Each of these pollutants on its own or in combination with other pollutants can have a detrimental effect on water quality. In addition, chemicals, liquid products, petroleum products (such as paints, solvents, and fuels), and concrete-related waste may be spilled or leaked during construction, which would have the potential to be transported via storm runoff into nearby receiving waters and eventually may affect surface or groundwater quality. During construction activities, excavated soil would be exposed, thereby increasing the potential for soil erosion and sedimentation to occur compared to existing conditions. In addition, during construction, vehicles and equipment are prone to tracking soil and/or spoil from work areas to paved roadways, which is another form of erosion that could affect water quality.

However, the use of BMPs during construction implemented as part of a SWPPP as required by the NPDES General Construction Permit and included as PPP WQ-1 would serve to ensure that Project impacts related to construction activities resulting in a degradation of water quality would be less than significant. Furthermore, an Erosion and Sediment Transport Control Plan prepared by a qualified SWPPP developer

(QSD) is required to be included in the SWPPP for the proposed Project, and would include the following types of erosion control methods (BMPs) that are designed to minimize potential pollutants entering stormwater during construction:

- Prompt revegetation of proposed landscaped areas;
- Perimeter gravel bags or silt fences to prevent off-site transport of sediment;
- Storm drain inlet protection (filter fabric gravel bags and straw wattles), with gravel bag check dams within paved roadways;
- Regular sprinkling of exposed soils to control dust during construction and soil binders for forecasted wind storms;
- Specifications for construction waste handling and disposal;
- Contained equipment wash-out and vehicle maintenance areas;
- Erosion control measures including soil binders, hydro mulch, geotextiles, and hydro seeding of disturbed areas ahead of forecasted storms;
- Construction of stabilized construction entry/exits to prevent trucks from tracking sediment on City roadways;
- Construction timing to minimize soil exposure to storm events; and
- Training of subcontractors on general site housekeeping.

Compliance with the Statewide General Construction Activity Stormwater Permit requirements, included as PPP WQ-1, which would be verified during the City's construction permitting process, would ensure that Project impacts related to construction activities resulting in a degradation of water quality would be less than significant.

As detailed in the Preliminary Geotechnical Investigation Report (Appendix G), the historic highest groundwater at the site has been mapped at a depth of about 5 feet bgs and groundwater in 2022 was encountered between depths of 12 feet and 16 feet bgs. Groundwater depth can fluctuate due to factors such as rainfall and presence of water near the Project site. Because excavation is anticipated to reach depths of 30 feet bgs for construction of up to two levels of subterranean parking, there is a potential for groundwater to be encountered during construction and for groundwater dewatering to be required. If contaminated, release of dewatered groundwater to surface waters can introduce total dissolved solids, Methyl tert-butyl ether, Total Petroleum Hydrocarbons - diesel, and other constituents to surface waters.

In the event that groundwater or perched groundwater is encountered during construction and groundwater dewatering is necessary, it would be completed in compliance with the Groundwater Discharge Permit, as specified PPP WQ-2. The Groundwater Discharge Permit would require testing and treatment as necessary of groundwater encountered during groundwater dewatering prior to release to surface waters to ensure that discharges do not contain pollutants. Compliance with the requirements of the Groundwater Discharge Permit, as specified in PPP WQ-2, would ensure impacts related to waste discharge requirements and water quality standards would be less than significant during dewatering activities, and no mitigation would be required.

Operation

The proposed Project includes operation of retail, restaurant, commercial, hotel, recreation, and multi-family residential uses. Potential pollutants associated with the proposed uses include various chemicals from cleaners, pathogens from pet wastes, nutrients from fertilizer, pesticides and sediment from landscaping, trash and debris, and oil and grease from vehicles. If these pollutants discharge into surface waters, it could result in degradation of water quality. As described previously, the Newport Back Bay, to which the Project site ultimately drains, is listed as impaired on the USEPA's 303(d) list for various pollutants. Therefore,

additional pollutant discharge could create new or exacerbate existing impairments within these waterbodies, which could result in a significant impact related to water quality.

However, operation of the proposed Project would be required to comply with the requirements of the Santa Ana Regional MS4 Permit and Orange County DAMP to develop of a project-specific WQMP (included as PPP WQ-3) that would describe implementation of LID infrastructure and non-structural, structural, and source control and treatment control BMPs to protect surface water quality. A Preliminary WQMP has been developed (included as Appendix M) per these requirements and recommends various BMPs to be incorporated into the proposed Project. A Project WQMP is required to be approved prior to the issuance of a building or grading permit.

The MS4 Permit identifies the use of infiltration BMPs to assist in recharge of groundwater. However, as described previously, the onsite soils have a low infiltration rate and are considered infeasible to support drainage on the Project site (Appendix G). Therefore, the proposed Project would install vegetated biotreatment systems for water quality treatment via bio-filtration that have been sized to treat runoff from the Design Capture Storm (85th percentile, 24-hour) from the proposed Project. The vegetated biotreatment systems are devices that are manufactured to mimic natural systems such as bioretention areas by incorporating plants, soil, and microbes engineered to provide treatment at higher flow rates or volumes and with smaller footprints than their natural counterparts.

The vegetated biotreatment systems proposed for the Project consist of biotreatment systems that utilize multi-stage treatment processes including screening media filtration, settling, and biofiltration. The pre-treatment chamber contains a filter to capture trash, debris, gross solids and sediments, a settling chamber for separating out larger solids, and a media filter cartridge for capturing fine silts, metals, nutrients, and bacteria. Runoff then flows through the wetland chamber where treatment of the water is done through a variety of physical, chemical, and biological processes. As stormwater passes down through the planting soil, pollutants are filtered, adsorbed, biodegraded, and sequestered by the soil and plants, functioning similar to bioretention systems. The discharge chambers at the end of the units collect treated flows and discharge it into the existing and upsized storm drains.

As described previously, the WQMP is required to be approved prior to the issuance of a building or grading permit. The Project's WQMP would be reviewed and approved by the City to ensure it complies with the Santa Ana RWQCB MS4 Permit and Orange County DAMP regulations. In addition, the City's permitting process would ensure that all BMPs in the WQMP would be implemented with the proposed Project. Overall, implementation of the WQMP pursuant to the existing regulations would ensure that operation of the proposed Project would not violate any water quality standards, waste discharge requirements, or otherwise degrade water quality; and impacts would be less than significant.

IMPACT WQ-2: THE PROJECT WOULD NOT SUBSTANTIALLY DECREASE GROUNDWATER SUPPLIES OR INTERFERE SUBSTANTIALLY WITH GROUNDWATER RECHARGE SUCH THAT THE PROJECT MAY IMPEDE SUSTAINABLE GROUNDWATER MANAGEMENT OF THE BASIN.

Less than Significant Impact.

Construction

As described previously, there is a potential for groundwater to be encountered during construction. Any groundwater dewatering would be temporary and limited to the excavation area. Because of the relative size of the Project site, as compared to the water basin, and the limited scope of excavation that would be deep enough to encroach into groundwater, the volume of groundwater removed would not be substantial and would not decrease groundwater supplies or impede groundwater management. The proposed Project would comply with the requirements of Groundwater Discharge Permit, including testing and treatment, if

necessary, that would be implemented through the RWQCB and the City’s development permitting process (and included as PPP WQ-2). Thus, any dewatering activities during construction would result in less than significant impacts to groundwater.

Operation

As described previously, the Orange County Basin provides approximately 76 percent of the City’s water supply. The remaining supply comes from the Metropolitan Water District (23 percent) and recycled water (1 percent) (UWMP 2020). The OCWD manages basin water supply through the Basin Production Percentage (BPP), which is set based on groundwater conditions, availability of imported supplies, and precipitation. As shown on Table 5.7-1, the City’s UWMP shows that the anticipated production of groundwater would remain steady from 2025 through 2045 and that in 2045 approximately 84.4 percent of supply would be from the Orange County Basin and 14.9 percent from imported/purchased sources.

Table 5.7-1: City of Santa Ana Projected Water Supply Projections (acre-feet)

Source	2025	2030	2035	2040	2045	2045 Percentage
OC Groundwater Basin	25,588	29,024	28,799	28,551	28,541	84.4%
Imported/Purchased	5,045	5,122	5,082	5,083	5,037	14.9%
Recycled	249	249	249	249	249	0.7%
Total	33,882	34,395	34,130	33,838	33,827	100%

Source: 2020 UWMP.

As detailed in Section 5.15, *Utilities and Service Systems*, the supply of water listed in Table 5.7-1 would be sufficient during both normal years and multiple dry year conditions between 2025 and 2045 to meet all of the City’s estimated needs, including the proposed Project. Therefore, the proposed Project would not result in changes to the projected groundwater pumping that would decrease groundwater supplies. Thus, impacts related to groundwater supplies would be less than significant.

In addition, as described previously the onsite soils have a low infiltration rate and do not currently provide onsite infiltration. As such, infiltration of water to the existing groundwater basin is neither currently occurring, nor would occur by the proposed Project. Therefore, impacts related to interference with groundwater recharge would be less than significant.

IMPACT WQ-3: THE PROJECT WOULD NOT SUBSTANTIALLY ALTER THE EXISTING DRAINAGE PATTERN OF THE AREA, INCLUDING THROUGH THE ALTERATION OF THE COURSE OF A STREAM OR RIVER, IN A MANNER WHICH WOULD RESULT IN SUBSTANTIAL EROSION OR SILTATION ON- OR OFF-SITE.

Less than Significant Impact. The Project site does not include, and is not adjacent to, a stream or river. Implementation of the proposed Project would not alter the course of a stream or river.

Construction

Construction of the proposed Project would require demolition of the existing building structures, including foundations and floor slabs, and excavation for construction of subterranean parking that would expose and loosen building materials and sediment, which has the potential to mix with storm water runoff and result in erosion or siltation offsite. However, the Project site does not include any slopes, which reduces the erosion potential.

The existing NPDES Construction General Permit and Orange County DAMP require preparation and implementation of a SWPPP by a Qualified SWPPP Developer for the proposed construction activities

(included as PPP WQ-1). The SWPPP is required to address site specific conditions related to potential sources of sedimentation and erosion and would list the required BMPs that are necessary to reduce or eliminate the potential of erosion or alteration of a drainage pattern during construction activities. Common types of construction BMPs include:

- Silt fencing, fiber rolls, or gravel bags
- Street sweeping and vacuuming
- Storm drain inlet protection
- Stabilized construction entrance/exit
- Vehicle and equipment maintenance, cleaning, and fueling
- Hydroseeding
- Material delivery and storage
- Stockpile management
- Spill prevention and control
- Solid waste management
- Concrete waste management

In addition, a QSP is required to ensure compliance with the SWPPP through regular monitoring and visual inspections during construction activities. The SWPPP would be amended and BMPs revised, as determined necessary through field inspections, in order to protect against substantial soil erosion, the loss of topsoil, or alteration of the drainage pattern. Compliance with the Construction General Permit and a SWPPP prepared by a QSD and implemented by a QSP (per PPP WQ-1) would prevent construction-related impacts related to potential alteration of a drainage pattern or erosion from development activities. Overall, with implementation of the existing construction regulations that would be verified by the City during the permitting approval process, impacts related to alteration of an existing drainage pattern during construction that could result in substantial erosion, siltation, and increases in stormwater runoff would be less than significant.

Operation

The Project-specific Preliminary WQMP describes that the Project site currently includes 37.02 acres of impermeable surfaces, which equates to 90 percent of the site. After completion of Project construction, the site would have a 4 percent reduction in impermeable surfaces (i.e., 35.37 acres or 86 percent of the site would have impermeable surfaces). As shown on Table 5.7-2, the reduction in impervious surfaces would result in a reduction in the 2-year, 24-hour storm volume by 6.3 percent.

Table 5.7-2: Two-Year Storm Runoff Rate

Storm Drain	Existing Condition	Proposed Condition
MacArthur Boulevard	18.3	17.8
Bristol Street	9.4	7.3
South Plaza Drive	2.2	1.4
Sunflower Avenue	27.3	27.1
Totals	57.2	53.6
Change	-6.3%	

Source: Preliminary Hydrology Report, Appendix L

The proposed Project would maintain the existing drainage pattern. The Project includes offsite storm drain improvements pursuant to the City’s Storm Drain Master Plan that involve replacing 2,230 lineal feet of the 54/60-inch storm drain with a 72-inch lateral in Sunflower Avenue and replacing a 42-inch lateral in Plaza drive with a 60-inch lateral. The runoff from the Project area would be collected by roof drains, surface

flow designed pavement, curbs, and area drains and conveyed to vegetated biotreatment systems (described previously) for treatment. Treated runoff would be conveyed to the existing and upsized City of Santa Ana storm drains in the roadways adjacent to the site. From there, flows would travel to the Orange County Flood Control District Santa Ana – Gardens and then the Delhi Channel that drains to Newport Bay and the Pacific Ocean.

The Project-related runoff conditions (flow rates) would decrease from existing conditions (shown in Table 5.7-1), and the proposed Project would manage the runoff with vegetated biotreatment systems that have been designed to accommodate stormwater associated with the proposed Project. As described previously the vegetated biotreatment systems contain catch basin inlet filters to capture trash, debris, gross solids and sediments, a settling chamber for separating out larger solids, and a media filter cartridge for capturing fine silts, metals, nutrients, and bacteria.

The MS4 Permit and DAMP require new development projects to prepare a WQMP (included as PPP WQ-3) that is required to include BMPs to reduce the potential of erosion and/or sedimentation through site design and structural treatment control BMPs. The Preliminary WQMP has been completed and is included as Appendix M. As part of the permitting approval process, the proposed drainage and water quality design and engineering plans would be reviewed by the City's Engineering Division to ensure that the site specific design limits the potential for erosion and siltation. Overall, the proposed drainage system and adherence to the existing regulations would ensure that Project impacts related to alteration of a drainage pattern and erosion/siltation from operational activities would be less than significant.

IMPACT WQ-4: THE PROJECT WOULD NOT SUBSTANTIALLY ALTER THE EXISTING DRAINAGE PATTERN OF THE SITE OR AREA, INCLUDING THROUGH THE ALTERATION OF THE COURSE OF A STREAM OR RIVER, 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.

Less than Significant Impact. As described previously, the Project site does not include, and is not adjacent to, a stream or river. Implementation of the proposed Project would not alter the course of a stream or river.

Construction

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. However, as described previously, implementation of the proposed Project requires a SWPPP (included as PPP WQ-1) that would address site specific drainage issues related to construction of the proposed Project and include BMPs to eliminate the potential of flooding or alteration of a drainage pattern during construction activities. This includes regular monitoring and visual inspections during construction activities. Compliance with the Construction General Permit and a SWPPP prepared by a QSD and implemented by a QSP (per PPP WQ-1) as verified by the City through the construction permitting process would prevent construction-related impacts related to potential alteration of a drainage pattern or flooding onsite or offsite from development activities. Therefore, impacts would be less than significant.

Operation

As described previously, and detailed in Table 5.7-2, the proposed Project would result in a decrease of impervious surfaces that would result in a decrease the 2-year storm runoff flowrate by 6.3 percent and the proposed Project would maintain the existing drainage pattern by collecting runoff via roof drains, curbs,

and area drains and conveying it to vegetated biotreatment systems (described previously) for treatment. Treated runoff would be conveyed to the existing and upsized storm drains that are adjacent to the Project site.

The Project related runoff conditions (flow rates) would decrease from existing conditions (shown in Table 5.7-2), and the proposed Project would manage the runoff with the vegetated biotreatment systems that have been designed to accommodate the proposed Project pursuant to the MS4 Permit and DAMP requirements. The Preliminary Water Quality Management Plan that was prepared for the proposed Project (Appendix M) details that the biotreatment system would meet the design capture volume of 92,425.5 cubic feet (cf) and 8.827 cubic feet per second (cfs). The vegetated biotreatment systems would filter, and discharge runoff into the existing offsite storm drains. As part of the permitting approval process, the proposed drainage design and engineering plans would be reviewed by the City's Engineering Division to ensure that the proposed drainage would accommodate the appropriate design flows. Overall, the proposed drainage system and adherence to the existing MS4 Permit and DAMP regulations would ensure that Project impacts related to alteration of a drainage pattern or flooding from operational activities would be less than significant.

IMPACT WQ-5: THE PROJECT WOULD NOT SUBSTANTIALLY ALTER THE EXISTING DRAINAGE PATTERN OF THE SITE OR AREA, INCLUDING THROUGH THE ALTERATION OF THE COURSE OF A STREAM OR RIVER 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 Impact. As described previously, the Project site does not include, and is not adjacent to, a stream or river. Implementation of the proposed Project would not alter the course of a stream or river.

Construction

As described in the previous response, construction of the proposed Project would require demolition and excavation activities that could temporarily alter the existing drainage pattern of the site and could result in increased runoff and polluted runoff if drainage is not properly controlled. However, as described previously, implementation of the proposed Project requires a SWPPP (included as PPP WQ-1) that would address site specific pollutant and drainage issues related to construction of the proposed Project and include BMPs to eliminate the potential of polluted runoff and increased runoff during construction activities. This includes regular monitoring and visual inspections during construction activities. Compliance with the Construction General Permit and a SWPPP prepared by a QSD and implemented by a QSP (per PPP WQ-1) as verified by the City through the construction permitting process would prevent construction-related impacts related to increases in run-off and pollution from development activities.

In addition, any groundwater extracted during groundwater dewatering activities that is discharged to surface waters would be tested and treated (if necessary) to ensure that any discharges meet the water quality limits specified in the required Groundwater Discharge Permit (as specified in PPP WQ-2). The Groundwater Discharge Permit would prevent substantial additional sources of polluted runoff being discharged to the storm drain system through implementation of construction BMPs that target pollutants of concern in runoff from the Project site as well as testing and treatment (if required) of groundwater prior to its discharge to surface waters. Therefore, impacts would be less than significant.

Operation

As described previously and detailed in Table 5.7-2, the proposed Project would result in a decrease of the 2-year, 24-hour storm runoff flowrate by 6.3 percent and the proposed Project would manage runoff with vegetated biotreatment systems that have been designed to accommodate the proposed Project design pursuant to the MS4 Permit and DAMP requirements. The units would filter, treat, and discharge runoff into the existing and upsized offsite storm drains.

As part of the permitting approval process, the proposed drainage design and engineering plans would be reviewed by the City's Engineering Division to ensure that the proposed drainage would accommodate the appropriate design flows. Additionally, the City permitting process would ensure that the drainage system specifications adhere to the existing MS4 Permit and DAMP regulations, which would ensure that pollutants are removed prior to discharge. Overall, with compliance to the existing regulations as verified by the City's permitting process, Project impacts related to the capacity of the drainage system and polluted runoff would be less than significant.

IMPACT WQ-6: THE PROJECT WOULD NOT SUBSTANTIALLY ALTER THE EXISTING DRAINAGE PATTERN OF THE SITE OR AREA, INCLUDING THROUGH THE ALTERATION OF THE COURSE OF A STREAM OR RIVER OR THROUGH THE ADDITION OF IMPERVIOUS SURFACES, IN A MANNER WHICH WOULD IMPEDE OR REDIRECT FLOOD FLOWS.

Less than Significant Impact. As described previously, the Project site does not include, and is not adjacent to, a stream or river. Implementation of the proposed Project would not alter the course of a stream or river. In addition, according to the FEMA FIRM for the Project area (06059C0279J), the Project site is located within "Zone X," which is an area determined to be outside of the 0.2 percent annual chance flood. Therefore, the Project site is not located within a flood hazard area that could be inundated with flood flows.

As detailed in the previous responses, implementation of the proposed Project would result in a decrease of impermeable surfaces from 90 percent of the site to 86 percent of the site. Also, the proposed Project would maintain the existing drainage pattern and drainage would be accommodated by vegetated biotreatment systems that have been sized to accommodate the DAMP required design storm. Therefore, the proposed Project would not result in impeding or redirecting flood flows by the addition of the impervious surfaces. As detailed previously, the City's permitting process would ensure that the drainage system specifications adhere to the existing MS4 Permit and DAMP regulations, and compliance with existing regulations would ensure that impacts would be less than significant.

IMPACT WQ-7: THE PROJECT IS NOT IN A FLOOD HAZARD, TSUNAMI, OR SEICHE ZONE THAT COULD RISK RELEASE OF POLLUTANTS DUE TO PROJECT INNUNDATION.

No Impact. As described previously, the FEMA FIRM for the Project area (06059C0279J) shows that the Project site is located within "Zone X," which is an area of minimal flood hazard potential outside of the 0.2 percent annual chance flood. Thus, the Project site is not located within a flood hazard area that could be inundated with flood flows and result in release of pollutants. Impacts related to flood hazards and pollutants would not occur from the proposed Project.

Also, as detailed previously, the Project site is over 5.9 miles from the Pacific Ocean, and outside of the Tsunami Hazard Zone identified by the California Department of Conservation (DOC 2023). Thus, the Project site would not be inundated by a tsunami that could result in the release of pollutants, and impacts would not occur. Additionally, because the Project site is not within the vicinity of a water body, it is not at risk for seiche flood hazards. Therefore, the release of pollutants on the Project site resulting from a seiche inundation would not occur.

IMPACT WQ-8: THE PROJECT WOULD NOT CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF A WATER QUALITY CONTROL PLAN OR SUSTAINABLE GROUNDWATER MANAGEMENT PLAN.

Less than Significant Impact. As described previously, use of BMPs during construction implemented as part of a SWPPP as required by the NPDES Construction General Permit (implemented through PPP WQ-1) and a RWQCB Groundwater Discharge Permit (implemented through PPP WQ-2) would serve to ensure that Project impacts related to construction activities resulting in a degradation of water quality would be less than significant. Thus, construction of the proposed Project would not conflict or obstruct implementation of a water quality control plan.

Also, as described previously, new development projects are required to implement a WQMP (per the Regional MS4 Permit and PPP WQ-3) that would comply with the Orange County DAMP. The WQMP and applicable BMPs are verified as part of the City's permitting approval process, and construction plans would be required to demonstrate compliance with these regulations. Therefore, operation of the proposed Project would not conflict with or obstruct implementation of a water quality control plan.

In addition, as detailed previously, the OCWD manages basin water supply through the BPP, such that the anticipated production of groundwater would remain steady from 2025 through 2045 (as shown in Table 5.7-1). As described previously and further detailed in Section 5.1.5, *Utilities and Service Systems*, the City's supply of water, as listed in Table 5.7-1, would be sufficient during both normal years and multiple dry year conditions between 2025 and 2045 to meet all of the City's estimated needs, including the proposed Project. Therefore, the proposed Project would be consistent with the groundwater management plan and would not conflict with or obstruct its implementation. Thus, impacts related to water quality control plan or sustainable groundwater management plan would be less than significant.

5.7.7 CUMULATIVE IMPACTS

Water Quality: The geographic scope for cumulative impacts related to hydrology and water quality includes the Santa Ana Watershed and the Newport Back Bay because cumulative projects and developments pursuant to the proposed Project could incrementally exacerbate the existing impaired conditions and could result in new pollutant related impairments.

Related developments within the watershed would be required to implement water quality control measures pursuant to the same NPDES General Construction Permit that requires implementation of a SWPPP (for construction), a WQMP (for operation) and BMPs to eliminate or reduce the discharge of pollutants in stormwater discharges, reduce runoff, reduce erosion and sedimentation, and increase filtration and infiltration, in areas permitted. The NPDES permit requirements have been set by the State Water Board and implemented by the RWQCB and the Orange County DAMP to reduce incremental effects of individual projects so that they would not become cumulatively considerable. Therefore, overall potential impacts to water quality associated with present and future development in the watershed would not be cumulatively considerable with compliance with all applicable laws, permits, ordinances and plans. As detailed previously, the proposed Project would be implemented in compliance with all regulations, as would be verified during the permitting process. Therefore, cumulative impacts related to water quality would be less than significant.

Drainage: The geographic scope for cumulative impacts related to stormwater drainage includes the geographic area served by the existing stormwater infrastructure for the Project area, from capture of runoff through final discharge points. As described above the proposed Project would result in a reduction in storm water runoff and includes installation of vegetated biotreatment systems that would filter and discharge runoff through storm drain connections to the offsite drainage infrastructure. The vegetated biotreatment systems would retain runoff and control drainage, pursuant to the required design storm. As a

result, the proposed Project would not generate runoff that could combine with additional runoff from cumulative projects that could cumulatively combine to impact drainage. Thus, cumulative impacts related to drainage would be less than significant.

Groundwater Basin: The geographic scope for cumulative impacts related to the groundwater basin is the Orange County Basin. The cumulative impacts are evaluated in light of development projections in the recent City General Plan update and GPU FEIR that evaluates conditions contributing to the cumulative effects to the groundwater basin. As described previously, the volume of water that would be needed by the proposed Project is within the anticipated groundwater pumping volumes. Therefore, the proposed Project would not result in changes to the projected groundwater pumping that would decrease groundwater supplies. As a result, the proposed Project would not generate impacts related to the groundwater basin that have the potential to combine with effects from other projects to become cumulatively considerable. Therefore, cumulative impacts related to the groundwater basin would be less than significant.

5.7.8 EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS, OR POLICIES

- Construction General Permit, Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ, 2012-0006-DWQ, and 2022-0057-DWQ
- California Water Resources Control Board Low Impact Development (LID) Policy
- Santa Ana Region MS4 Permit; NPDES Permit No. CAS618030 (Order R8-2009-0030 as amended by Order No. R8-2010-0062)
- Orange County Drainage Area Management Plan (DAMP)
- Municipal Code Section 18-155, Prohibition on Illicit Connections and Prohibited Discharges
- Municipal Code Section 18-156, Control of Urban Runoff

Plans, Program and Policies

The following Plans, Programs, and Policies (PPP) related to hydrology and water quality are incorporated into the proposed Project and would reduce impacts related to hazards and hazardous materials. These actions will be included in the proposed Project's mitigation monitoring and reporting program (MMRP):

PPP WQ-1: NPDES/SWPPP. Prior to issuance of any grading or demolition permits, the applicant shall provide the City Building and Safety Division evidence of compliance with the NPDES (National Pollutant Discharge Elimination System) requirement to obtain a construction permit from the State Water Resource Control Board (SWRCB). The permit requirement applies to grading and construction sites of one acre or larger. The Project applicant/proponent shall comply by submitting a Notice of Intent (NOI) and by developing and implementing a Stormwater Pollution Prevention Plan (SWPPP) and a monitoring program and reporting plan for the construction site.

PPP WQ-2: Groundwater Dewatering Permits. Prior to initiation of excavation activities, the Project applicant shall obtain coverage under the Santa Ana RWQCB 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), or any other subsequent permit for dewatering activities, and provide evidence of coverage to the City of Santa Ana Building and Safety Division designee. This shall include submission of a Notice of Intent (NOI) for coverage under the permit to

the Santa Ana Regional Water Quality Control Board (RWQCB) at least 60 days prior to the start of excavation activities and anticipated discharge of dewatered groundwater to surface waters. Groundwater dewatering activities shall comply with all applicable provisions in the permit, including water sampling, analysis, treatment (if required), and reporting of dewatering-related discharges. Upon completion of groundwater dewatering activities, a Notice of Termination shall be submitted to the Santa Ana RWQCB.

PPP WQ-3: WQMP. Prior to the approval of the Grading Plan and issuance of Grading Permits a completed Water Quality Management Plan (WQMP) shall be submitted to and approved by the City Public Works Agency. The WQMP shall identify all Post-Construction, Site Design, Source Control, and Treatment Control Best Management Practices (BMPs) that will be incorporated into the development project in order to minimize the adverse effects on receiving waters.

5.7.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements Impacts WQ-1 through WQ-8 would be less than significant.

5.7.10 MITIGATION MEASURES

GPU FEIR Mitigation Measures

No mitigation measures were included.

Proposed Specific Plan Project Mitigation Measures

No new mitigation measures are required for the proposed Project.

5.7.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant unavoidable adverse impacts related to hydrology and water quality have been identified and impacts would be less than significant.

REFERENCES

- California Department of Conservation California Official Tsunami Inundation Maps (DOC 2023). Accessed: <https://www.conservation.ca.gov/cgs/tsunami/maps>
- City of Santa Ana General Plan Update. April 2022. Accessed: <https://www.santa-ana.org/general-plan-documents/>
- City of Santa Ana General Plan Update Final Recirculated Draft Program Environmental Impact Report. October 2021. Accessed: <https://www.santa-ana.org/general-plan-environmental-documents/>
- City of Santa Ana Municipal Code. Accessed: https://library.municode.com/ca/santa_ana/codes/code_of_ordinances?nodeld=SAANMUCO
- City of Santa Ana Storm Drain Master Plan. December 2018. Accessed: <https://www.santa-ana.org/documents/storm-drain-master-plan/>
- City of Santa Ana 2020 Urban Water Management Plan. Accessed: <https://www.santa-ana.org/urban-water-management-plan/>
- FEMA Flood Map Service Center. Accessed: <https://msc.fema.gov/portal/search>
- Phase I Environmental Site Assessment Report (Phase I). Revised April 2023. Prepared by ENGEO. (Appendix J)
- Phase II Environmental Site Assessment Report (Phase II North). Revised April 2023. Prepared by ENGEO. (Appendix K1)
- Phase II Environmental Site Assessment Report (Phase II South). Revised April 2023. Prepared by ENGEO. (Appendix K2)
- Preliminary Investigation Report Related Bristol Project. August 2022. Prepared by Group Delta Consultants, Inc. (Appendix G)
- Preliminary Hydrology Report. Revised March 2023. Prepared by Fuscoe Engineering. (Appendix L)
- Preliminary Water Quality Management Plan. Revised March 2023. Prepared by Fuscoe Engineering. (Appendix M)
- Storm Drain Master Plan Drainage Assessment. February 2023. Prepared by Fuscoe Engineering, Inc. (Appendix R)

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5.8 Land Use and Planning

5.8.1 INTRODUCTION

In accordance with CEQA Guidelines Section 15125(d), this section provides a summary of the plans, policies, and regulations of the City of Santa Ana, and regional, state, and federal agencies that have policy and regulatory control over the Specific Plan area and the proposed Project. Policy conflicts do not, in and of themselves, indicate a significant environmental effect within the meaning of CEQA. To the extent that physical environmental impacts may result from such conflicts, those impacts are analyzed in this Supplemental EIR in the specific topical sections to which the impact pertains (e.g., noise, air quality, greenhouse gas emissions, or transportation). More specifically, this section examines the potential for the proposed Specific Plan Project to physically divide an established community and/or conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project adopted for the purpose of avoiding or mitigating an environmental effect, including relevant goals and policies of the recently updated City of Santa Ana General Plan (2022), the City's zoning code, the Airport Environs Land Use Plan (AELUP) for John Wayne Airport, and the SCAG Final 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), "Connect SoCal 2020".

5.8.2 REGULATORY SETTING

California Public Utilities Code, Section 21676, Airport Land Use Commission

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 Airport Land Use Commission (ALUC), the local agency shall first refer 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 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. The local agency governing body shall include comments from the ALUC and the Division 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.

SCAG Final 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), (Connect SoCal 2020)

The Southern California Association of Governments (SCAG) is designated by federal law as a Metropolitan Planning Organization (MPO) and under state law as a Regional Transportation Planning Agency and a Council of Governments. The SCAG region encompasses six counties (Imperial, Los Angeles, Orange,

Riverside, San Bernardino, and Ventura) and 191 cities in an area covering more than 38,000 square miles. SCAG develops transportation and housing strategies for Southern California as a whole.

On September 3, 2020, SCAG's Regional Council adopted Connect SoCal (Connect SoCal) - The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020 RTP/SCS), 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 following SCAG Connect SoCal sustainable community land use related policies 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 Connect SoCal:

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.

Connect SoCal identifies Priority Growth Areas (PGAs) that follow the principles of “center-focused placemaking,” including “locations where many Connect SoCal strategies can be fully realized.” Connect SoCal 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.

The Specific Plan area is within a Transit Priority Area (TPA); TPAs are within one half-mile of existing or planned ‘major’ transit stops. Connect SoCal 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.” Connect SoCal 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 Connect SoCal’s 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.” Connect SoCal 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.

Airport Environs Land Use Plan for John Wayne Airport

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 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 areas surrounding any airport which affects, or is affected by, aircraft operations are 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 furthest extent of the 60 CNEL contour, the FAR Part 77 Notification Surface, and the runway safety zones associated with the airport. In most instances, the airport influence area is designated by the ALUC as its planning area boundary for the airport and the two terms can be considered synonymous. The Project site is located within the SNA Planning Area’s FAR Part 77 Notification Area but outside of the airport’s 60 CNEL Contour, as shown in Figures 5.6-1, 5.6-2, and 5.6-3.

Building Height Restrictions: The ALUC has adopted the FAR Part 77 as the criteria for determining height restrictions in Orange County. These regulations are the only definitive standard available and the standard most generally used (AELUP 2008). The allowable height of structures surrounding an airport is described in FAR Part 77 as the allowable height at which safe movement of aircraft occurs. The 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 SNA. Beyond the 100:1 imaginary surface, FAR Part 77 requires notification to FAA for any project that will be more than 200 feet in height above the ground level pursuant to FAR Part 77 Section 77.13.

Airport Environs Land Use Plan Policies: The following policies in the AELUP for John Wayne Airport are relevant to the proposed Project:

Policy 3.2.1: 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 3.2.4: Noise Impact Zone "2" - Moderate Noise Impact (60 dB CNEL or greater, less than 65 dB CNEL). Noise impacts in this area are sufficient to require sound attenuation as set forth in the California Noise Insulation Standards, Title 25, California Code of Regulations. Single noise events in this area create serious disturbances to many inhabitants. Even though the Commission would not find residential units incompatible in this area, the Commission strongly recommends that residential units be limited or excluded from this area unless sufficiently sound attenuated. The residential use interior sound attenuation requirement shall be a CNEL value not exceeding an interior level of 45 dB. In addition, it is recommended that designated outdoor common or recreational areas within Noise Impact Zone 2 provide outdoor signage informing the public of the presence of operating aircraft.

Policy 3.2.5: Runway Protection Zone "RPZ," Extreme Crash Hazard. The severe potential for loss of life and property due to accidents prohibits most land uses in this area. Only airport related uses and open space uses, including agriculture and certain types of transportation and utility uses are permitted. No buildings intended for human habitation are permitted in the RPZ. Furthermore, because of the proximity to aeronautical operations, uses in this area must not attract birds nor emit excessive glare or light, nor produce or cause steam, smoke, dust, or electronic interference so as to interfere with, or endanger, 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 air space used for the airport traffic pattern or enroute navigation to and from the airport.

City of Santa Ana General Plan Update

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 (FAR) of 5.0, or 125 dwelling units per acre (du/ac) and a maximum height of 25 stories. The GPU's District Center designation allows up to 8,733,780 SF of mixed uses, inclusive of residential uses, based on the maximum FAR of 5.0 over the approximately 41.13-gross-acre site.

Focus Area

The Project site is located in the GPU Land Use Element South Bristol Street Focus Area. This Focus Area is bordered by Warner Avenue to the north, Sunflower Avenue to the south, and is generally centered along Bristol Street is located in a north-south alignment down the center.

The South Bristol Street 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 South Bristol Street 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.

GPU Goals and Policies

The GPU is the City's principal long-range policy and planning document guiding the development, conservation, and enhancement of Santa Ana. The General Plan Update was adopted by the City in 2022 and contains 9 Elements that provide a comprehensive collection of goals and policies related to the physical development of the City. The GPU goals and policies that are relevant to the proposed Project are listed below by General Plan Element.

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.
- 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.
- 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.

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 travelways to accommodate all users through street design and amenities, such as sidewalks, trees, landscaping, street furniture, and bus shelters.
- 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.
- POLICY M-1.8** Consider air and water quality, noise reduction, neighborhood character, and street-level aesthetics when making improvements to travelways.
- GOAL M-3:** 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** 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** 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** 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** 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** 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** 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** 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** Utilize land use, building, site planning, and technology solutions to mitigate exposure to transportation-related air pollution, especially in environmental justice focus areas.

- POLICY M-5.1** 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** 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** Encourage the use of alternative fuel vehicles and mobility technologies through the installation of supporting infrastructure.

Economic Prosperity Element

- GOAL EP-1:** Foster a dynamic local economy that provides and creates employment opportunities for all residents in the city.

- POLICY EP-1.2** Strengthen and expand citywide business attraction efforts in order to achieve the city’s full employment potential.

- POLICY EP-3.4** 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** Promote the creation of distinctive neighborhood serving districts through the renovation or redevelopment of existing strip-commercial development.

Public Services Element

- 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.

- GOAL PS-2:** Preserve a safe and secure environment for all people and property.

- 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.

- 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.
- 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.
- POLICY PS-3.8** Promote cost-effective conservation strategies and programs that increase water use efficiency.
- POLICY PS-3.10** Encourage new development and reuse projects to incorporate recycling and organics collection activities aligned with state waste reduction goals.
- POLICY PS-3.12** Maintain and upgrade sewer and water infrastructure through impact fees from new development and exploring other funding sources.

Conservation Element

- GOAL CN-1:** Protect air resources, improve regional and local air quality, and minimize the impacts of climate change.
- 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.
- 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.
- 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.
- GOAL CN-3:** Reduce consumption of and reliance on nonrenewable energy, and support the development and use of renewable energy sources.
- POLICY CN-3.3** Promote energy-efficient development patterns by clustering mixed use developments and compatible uses adjacent to public transportation.

- POLICY CN-3.4** Encourage site planning and subdivision design that incorporates the use of renewable energy systems.
- 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.
- POLICY CN-3.7** Maintain, preserve, and enhance the City's urban forest as an environmental, economic, and aesthetic resource to improve residents' quality of life.
- GOAL CN-4:** Conserve and replenish existing and future water resources.
- POLICY CN-4.2** Encourage public and private property owners to plant native or drought-tolerant vegetation.
- POLICY CN-4.4** Promote irrigation and rainwater capture systems that conserve water to support a sustainable community.
- 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.

Open Space Element

- 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.
- 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 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:** 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.
- 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.
- 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.

Noise Element

- GOAL N-1:** Ensure that existing and future land uses are compatible with current and projected local and regional noise conditions.
- POLICY N-1.2** Encourage functional and attractive designs to mitigate excessive noise levels.
- POLICY N-1.4** Protect noise sensitive land uses from excessive, unsafe, or otherwise disruptive noise levels.
- GOAL N-2:** Reduce the impact of known sources of noise and vibration.
- POLICY N-2.1** Reduce noise generated from traffic, railroads, transit, and airports to the extent feasible.
- POLICY N-2.2** Minimize noise impacts from commercial and industrial facilities adjacent to residential uses or zones where residential uses are permitted.
- POLICY N-2.3** Minimize the effects of intermittent, short-term, or other nuisance noise sources.
- GOAL N-3** Protect sensitive land uses from airport related noise impacts.
- POLICY N-3.1** Residential development within the John Wayne Airport (SNA) 65 dB(A) CNEL Noise Contour or greater is not supported.

Safety Element

- GOAL S-1:** Protect life and minimize property damage, social and economic disruptions caused by flood and inundation hazards.
- 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.
- 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.
- GOAL S-3:** Provide a safe environment for all Santa Ana residents and workers while minimizing risk.
- 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.
- 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 Airport Land Use Commission (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 Federal Aviation Regulation (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-4.6** 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.

Land Use Element

- POLICY LU-1.1** Foster compatibility between land uses to enhance livability and promote healthy lifestyles.
- POLICY LU-1.5** Incentivize quality infill residential development that provides a diversity of housing types and accommodates all income levels and age groups.
- POLICY LU-1.6** Encourage residential mixed-use development, within the City’s District Centers, Urban Neighborhoods, and adjacent to high quality transit.
- 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.
- 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.
- 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.
- 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.
- POLICY LU-2.10** Focus high density residential in mixed-use villages, designated planning focus areas, Downtown Santa Ana, and along major travel corridors.
- GOAL LU-3:** Preserve and improve the character and integrity of existing neighborhoods and districts.
- POLICY LU-3.1** Support new development which provides a net community benefit and contributes to neighborhood character and identity.
- POLICY LU-3.4** Ensure that the scale and massing of new development is compatible and harmonious with the surrounding built environment.
- 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.
- POLICY LU-4.1** Promote complete neighborhoods by encouraging a mix of complementary uses, community services, and people places within a walkable area.
- POLICY LU-4.5** Concentrate development along high-quality transit corridors to reduce vehicle miles traveled (VMT) and transportation-related carbon emissions.

Historic Preservation Element

- 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.

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.
- POLICY UD-1.1** Ensure all developments feature high quality design, materials, finishes, and construction.
- POLICY UD-1.2** Require public art as part of major developments and the public realm improvements.
- 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.

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.
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.
POLICY UD-2.11	Encourage sustainable development through the use of drought-tolerant landscaping, permeable hardscape surfaces, and energy-efficient building design and construction.
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.

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.

The existing zoning of the Project site is General Commercial (C-2) north of Callen's Common, and Commercial Residential (CR) and General Commercial (C-2) south of Callen's Common. Both designations

include a range of commercial uses as well as all of the uses allowed in the Community Commercial (C-1) zone. Pursuant the City's Zoning Code Sec. 41-377, uses permitted in the C-1 zone include but are not limited to:

- a) Retail and service uses.
- b) Professional, administrative, and business offices.
- c) Automobile parking lots and parking structures.
- d) Automobile sales, but excluding truck, trailer, tractor, and boat sales.
- e) Churches and accessory church buildings.
- f) Mortuaries.
- g) Theaters.
- h) Hospitals, clinics, and sanitariums.
- i) Animal hospitals and veterinaries.
- j) Plant nurseries.
- k) Gymnasiums.
- l) Golf courses, both regulation and miniature, and driving ranges.
- m) Public utility structures, including electric distribution and transmission substations.
- n) Restaurants, cafes, and eating establishments, other than those specified in Section 41-365.5.
- o) Schools and studios operated for commercial or public purposes.
- p) Childcare facilities.
- q) Service stations.
- r) Automobile servicing.
- s) Tattoo and/or body art establishments, subject to the development and operational standards set forth in Section 41-199.3.

Uses permitted in the C-2 zone include:

- a) All uses which are permitted in the C-1 district pursuant to Section 41-365.
- b) Automotive garages including body and fender repair, painting, and engine replacement.
- c) Blueprinting, photo-engraving, including all types of reproduction processes.
- d) Reserved.
- e) Equipment rental yards.
- f) Metal shops.
- g) Tire recapping.
- h) Wholesale establishments as follows:
 - 1) Automotive equipment, including parts and supplies for machinery.
 - 2) Drugs, chemicals, and allied products excluding explosives and industrial chemicals.
 - 3) Dry goods and apparel.
 - 4) Food products.
 - 5) Farm products.
 - 6) Electrical and plumbing supplies.
 - 7) Office equipment and supplies.
- i) Truck, trailer, tractor, and boat sales.
- j) Research institutions and laboratories.
- k) Adult entertainment businesses subject to compliance with the requirements of article XVII of this Chapter.

Uses permitted in the CR zone include:

- a) Retail and service uses.
- b) Professional offices.
- c) One-family, two-family, and multiple-family dwellings.

- d) Resident managers' offices devoted solely to the rental of dwelling units on the site, provided that said office and surrounding grounds shall retain a residential character if located within residential areas.
- e) Adult entertainment businesses, subject to compliance with the requirements of article XVII of this chapter.

Specific Plan (SP) Zoning District: The proposed zoning for the Project site is Specific Plan (SP). 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 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 facilities 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 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.

5.8.3 ENVIRONMENTAL SETTING

Proposed Specific Plan Area

The Project site is 41.13 gross acres of land that includes the following nine parcels: (Assessor Parcel Numbers [APNs]) 412-131-12, 412-131-13, 412-131-14, 412-131-16, 412-131-17, 412-131-22, 412-131-24, 412-131-25 and 412-131-26.

The site is developed with a shopping center that includes 16 commercial buildings with parking areas, vehicle circulation drives, and ornamental landscaping. The northern half of the site is developed with approximately 45 percent site coverage and tenants include a grocery, gym, bank, and a variety of retail, service retail/commercial, medical, restaurant, and fast-food uses. The southern half of the site is developed with approximately 55 percent site coverage with a tenant mix of retail, service retail/commercial, restaurant, and fast-food uses. Existing major tenants on the southern half of the center include TJ Maxx, Ross Dress for Less, Cost Plus World Market, and Red Robin Restaurant.

The existing buildings total 465,063 SF and consist of the following structures:

- **3900 South Bristol Street:** A single story commercial building that is approximately 214,137 SF and was constructed in 1972. The building has six commercial tenants, including Hobby Lobby; Ross Dress for Less; TJ Maxx; Red Robin Restaurant, and Cost Plus World Market.
- **3610 South Bristol Street:** A single story commercial building constructed in 1972 with two roll up truck bays.
- **3701 South Plaza Drive:** A two-story high commercial building constructed in 1974 that currently is used as a gym for the LA Fitness company.
- **3620 South Bristol Street:** A three-story 28,847 SF medical and dentist office building constructed in 1973.
- **3600 South Bristol Street:** A 19,910 SF two-story bank/office building constructed in 1972.
- **3608 South Bristol Street:** A 8,426 SF three-story high restaurant building constructed in 1972 currently occupied by a Korean BBQ restaurant.
- **3730 South Bristol Street:** A single story commercial building constructed in 1972 and currently occupied by Bank of America.
- **3638 South Bristol Street:** A single story commercial building constructed in 2003 and currently occupied by Sleep Number.
- **3710 South Bristol Street:** A single story commercial building constructed in 2001 and currently occupied by Jack in the Box.
- **1500 West MacArthur Boulevard:** A single story seafood restaurant building constructed in 1984.
- **3814-16 South Bristol Street:** A two story 8,761 SF commercial building currently occupied by clothing store, Hawaiian BBQ restaurant, barbershop, and a hair salon on the first floor and seven retail tenants on the second floor. The building was constructed in 1979.
- **3810 South Bristol Street:** A single story restaurant building constructed in 2004 and occupied by McDonald's.
- **3820 South Bristol Street:** A single story commercial building constructed in 1978 and currently occupied by Robbins Brothers.
- **3930 South Bristol Street:** A 30,129 SF retail/office building with a 3,330 SF square foot mezzanine and 6 loading docks that was constructed in 1985.

Existing General Plan Land Use and Zoning Designations

The Project site has a General Plan Land Use designation of District Center-High (DC-5) within the South Bristol Street Focus Area and is zoned General Commercial (C-2) and Community Residential (CR), as shown on Figure 3-5, *Existing Zoning*, in Chapter 3.0, *Project Description*. As described previously, the Land Use Element states that the existing District Center-High land use designation applies to 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, or where such development is being encouraged. The development intensity standard applicable to this land use designation is a maximum FAR of 5.0 and 125 units/acre. The District Center-High areas are intended to

capitalize on the success of the South Coast Metro area and introduce mixed-use urban villages and encourage experiential commercial uses that are more walkable, bike friendly, and transit oriented.

Existing Transit-Oriented-Development Setting

The proposed Project is located within a Transit Priority Area (TPA) as identified in the City of Santa Ana Traffic Impact Study Guidelines (September 2019) and is within the both the 2012 and 2045 High-Quality Transit Areas (HQTAs) as defined by SCAG. Furthermore, the GPU's Mobility Element (April 2022) indicates key multimodal aspects and opportunities in the vicinity of the proposed Project, including public transit, bikeways, and pedestrian zones.

Surrounding Land Uses

The proposed Specific Plan area is located within an urban area that is fully developed. The Specific Plan area is located immediately north of major regional activity hubs including South Coast Plaza, Segerstrom Center for the Arts, and a mix of commercial and residential uses in the Cities of Costa Mesa and Santa Ana. The land uses immediately adjacent to the Specific Plan area include the following:

- North:** MacArthur Boulevard (a 6-lane major arterial) bounds the site to the north, followed by commercial and multi-family residential uses. Areas across MacArthur Boulevard from the site are within the City of Santa Ana.
- East:** South Bristol Street (a 6-lane major arterial) borders the site to the east. Land uses east of Bristol Street include retail commercial uses and multi-family residential uses within the City of Santa Ana.
- South:** Sunflower Avenue (a 6-lane major arterial) bounds the site to the south. Commercial uses are located south of Sunflower Avenue within the City of Costa Mesa.
- West:** South Plaza Drive (a 4-lane local roadway) bounds the site to the west. Multi-family residential uses and South Coast Village are located west of South Plaza Drive.

John Wayne Airport

John Wayne Airport (SNA) is located approximately 1.4 miles southeast of the proposed Project within the AELUP Notification area and the FAR Part 77 Notification Imaginary Surface area, as detailed in Section 5.6, *Hazards and Hazardous Materials* (Figures 5.6-1 and 5.6-4). As the Project proposes a zone change and adoption of a Specific Plan, the City is required to refer the proposed Project to the ALUC for review, pursuant to the California Public Utilities Code Section 21676, as listed previously.

Also, the ALUC has adopted FAR Part 77 as the criteria for determining height restrictions in Orange County. FAR Part 77 requires notification to FAA for any project that would be more than 200 feet in height above ground level or within the imaginary surface of a 100:1 slope extending outward for 20,000 feet from the nearest runway. As shown on Figure 5.6-4, in Section 5.6, *Hazards and Hazardous Materials*, the Project site is located within the 206-foot-high imaginary surface area for SNA. Therefore, FAA notification for the proposed Project would be required.

5.8.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

LU-1: Physically divide an established community; or

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.

5.8.5 METHODOLOGY

The analysis of land use consistency impacts considers whether the proposed Project would physically divide an established community and if the proposed Project would be inconsistent with (or conflict with) with regional and local plans, policies, and regulations that are applicable to the proposed Specific Plan and Project site, including the: SCAG RTP/SCS, AELUP for John Wayne Airport, City of Santa Ana GPU and zoning code. Consistent with the scope and purpose of this Supplemental EIR, this discussion primarily focuses on those goals and policies that relate to avoiding or mitigating environmental impacts, and an assessment of whether any inconsistency with these standards creates a significant physical impact on the environment. Thus, a project's inconsistency with a policy is only considered significant if such inconsistency would cause significant physical environmental impacts (as defined by CEQA Guidelines Section 15382).

CEQA Guidelines Section 15125(d) requires that an EIR discuss inconsistencies with applicable plans that the decision-makers should address. A project need not be consistent with each and every policy and objective in a planning document. Rather, a project is considered consistent with the provisions of the identified regional and local plans if it meets the general intent of the plans and would not preclude the attainment of the primary goals of the land use plan or policy.

5.8.6 ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR determined that the land use in the General Plan Update is intended to promote growth and development of the City. Proposed changes in the existing land use following the GPU would not physically divide the community. The GPU FEIR describes that many General Commercial and Professional Office use areas would change to Urban Neighborhood (UN) or District Center (DC) designations by the GPU, which would increase opportunities for residential development. These new designations propose mixed-use residential, commercial, and public spaces within the existing land uses. Similarly, a mixed-use industrial/office Industrial Flex designation would be introduced where industrial uses currently exist.

The GPU FEIR describes that the South Bristol Focus Area is planned to add 5,272 dwelling units to existing conditions and would not physically divide the established community. The GPU FEIR describes that implementation of the Urban Design and Land Use Policies would result in less than significant impacts.

The GPU area is subject to land use plans under the AELUP for the John Wayne Airport, SCAG RTP/SCS, and the Orange County Transportation Authority (OCTA) Congestion Management Plan. The GPU FEIR determined that the GPU complies with the goals and regulations of all three land use plans. Therefore, the GPU FEIR determined that environmental impacts related to potential conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect would be less than significant.

Proposed Specific Plan Project

IMPACT LU-1: THE PROJECT WOULD NOT PHYSICALLY DIVIDE AN ESTABLISHED COMMUNITY.

No Impact. The physical division of an established community could occur if a major road (expressway or freeway, for example) were built through an existing community or neighborhood, or if a major development were built that was inconsistent with the land uses in the community such that it divided the community.

As described previously, the Project site has long been developed with a shopping center that includes 16 commercial buildings with surface parking areas, vehicle circulation drives, and ornamental landscaping. The Project site is surrounded by and well connected to roadways. Areas across Sunflower Avenue, which is a 6-

lane arterial roadway, include commercial uses within South Coast Plaza. The land directly across South Bristol Street (also a 6-lane arterial roadway) from the Project site is developed with retail commercial uses followed by multi-family residential units. Areas to the north of the site, across West MacArthur Boulevard, are also within the South Bristol Focus Area and developed with commercial and residential uses. Areas to the west across South Plaza Drive include multi-family residential uses to the north and commercial uses to the south.

The proposed Project would demolish the existing development and related infrastructure on the site and provide a new mixed-use development with up to 3,750 multi-family residential units; up to 350,000 SF of commercial uses; a 250-room hotel; a senior living/continuum of care use with up to 200 units; and approximately 13.1 acres of common open space. The proposed Project would change the site from a partially underutilized shopping center to a residential and commercial mixed-use community with open space and gathering spaces, consistent with the DC-5 designation for development of transit-oriented high density urban villages. The proposed Project would result in the generation of a new community that would be consistent with the surrounding commercial and multi-family residential uses. The proposed Project would result in a new community that would connect to and become part of the existing community around the site; thus, the proposed Project would not physically divide an established community.

In addition, the proposed Project would not change roadways in a manner that would inhibit access or install any infrastructure that would result in a physical division. The Specific Plan includes development of new onsite roadways and installation of new onsite infrastructure that would connect to existing roadways and infrastructure that are adjacent to the site. The proposed Project also includes offsite circulation improvements to roadways, bicycle lanes, and pedestrian facilities that would facilitate connections and multimodal methods of travel and would not result in any physical division. Thus, the proposed Project would not result in impacts related to physical division of an established community.

This is consistent with the findings of the GPU FEIR, which determined that the GPU provides for infill redevelopment and would concentrate development in areas to take advantage of mass transit and provide mixed-use opportunities, and would not introduce any new development, roadways, or other infrastructure that would bisect existing communities or neighborhoods.

IMPACT LU-2: THE PROJECT WOULD NOT CAUSE A SIGNIFICANT ENVIRONMENTAL IMPACT DUE TO A CONFLICT WITH ANY LAND USE PLAN, POLICY, OR REGULATION ADOPTED FOR THE PURPOSE OF AVOIDING OR MITIGATING AN ENVIRONMENTAL EFFECT.

Less than Significant Impact.

SCAG Connect SoCal Regional Transportation Plan/ Sustainable Communities Strategy Policies

SCAG strategies focus largely on implementing transit-oriented development and increasing the use of regional transit, encouraging development patterns and densities that reduce infrastructure costs, and providing affordable and a variety of housing types.

The proposed Specific Plan would implement SCAG strategies related to high-density, infill development, and improvement of the job/housing balance that is centered around public transit opportunities. The proposed Specific Plan provides for infill development in an already developed urban area that would make use of the existing circulation and utility infrastructure. The proposed Specific Plan would introduce high-density residential uses and retail, commercial, hotel, and restaurant uses that would create a mixed-use environment in which residents would benefit from the proposed onsite uses and nearby shopping, restaurant, and employment opportunities to reduce VMT.

The site is located within a TPA and a High-Quality Transit Corridor, as the fixed route bus routes provide service intervals of no longer than 15 minutes during the peak commute hour. Six OCTA bus routes operate within the vicinity of the Project site and travel along MacArthur Boulevard, Bristol Street, Sunflower Avenue, South Plaza Drive, and Bear Street that provide connections to the regional transit system. Thus, the proposed Specific Plan would be consistent with SCAG strategies to provide infill residential and mixed-use development and increase the availability of transit-oriented development.

In addition, green building measures, such as water efficiency, Low Impact Development (LID), and renewable energy sources would be implemented by the proposed Specific Plan to reduce GHG emissions. Overall, the proposed Specific Plan would be consistent with SCAG’s 2020 Connect RTP/SCS, as detailed in Table 5.8-1. Therefore, implementation of the proposed Project would not result in conflict with SCAG Connect SoCal strategies, and impacts would not occur.

Table 5.8-1: Project Consistency with SCAG Connect SoCal Regional Transportation Plan/Sustainable Communities Strategy Policies

2020 Connect SoCal Strategy Policy	Proposed Project Consistency with Policy
Focus Growth Near Destinations & Mobility Options	
Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations.	Consistent. The proposed Project would implement a high intensity mixed-use development near multiple freeways and the OCTA transit system. In addition, the Project includes installation of new/improved sidewalks and bikeway and bus stop improvements to facilitate pedestrian, bicycle, bus, and vehicle multimodal circulation.
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.	Consistent. The proposed Project would provide additional housing, shopping, and restaurants in a regional job centered area and is located near transit and main streets and would improve the City’s jobs/housing balance.
Plan for growth near transit investments and support implementation of first/last mile strategies.	Consistent. The proposed Project provides improvements to pedestrian and bicycle facilities that would maximize access to OCTA transit. The proposed mixed-use land uses are intended to reduce VMT by providing housing, retail, restaurants, and services within the Project site.
Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses.	Consistent. The proposed Project would redevelop an older shopping center with large areas of surface parking and provide a new mixed-use development with uses including residential, hotel retail, restaurants, and services.
Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods.	Consistent. The proposed Project is an infill use that would redevelop an underutilized land to accommodate new growth, and would increase amenities, such as parks, and provide connectivity to 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).	Consistent. The proposed Project provides improvements to pedestrian and bicycle facilities that increase access to OCTA transit. The proposed mixed-use land uses are intended to reduce VMT by providing housing, retail, restaurants, and services within the Project site.
Identify ways to “right size” parking requirements and promote alternative parking strategies (e.g., shared parking or smart parking).	Consistent. The proposed Specific Plan includes parking requirements and implements shared parking areas and alternative parking strategies for the mixed-use development.
Promote Diverse Housing Choices	
Preserve and rehabilitate affordable housing and prevent displacement.	Consistent. The Project site does not currently include any housing. No housing would be displaced with the proposed Project. The proposed Project provides for new housing in a mixed-use setting.

2020 Connect SoCal Strategy Policy	Proposed Project Consistency with Policy
Identify funding opportunities for new workforce and affordable housing development.	Consistent. Consistent with the City of Santa Ana’s GPU assumptions for the area, the proposed Specific Plan provides for a substantial amount of new housing in proximity to transit and major employment centers. The proposed Specific Plan is a mixed-use development at a higher density to provide for additional housing in the SCAG region.
Create incentives and reduce regulatory barriers for building context-sensitive accessory dwelling units to increase housing supply.	Consistent. The proposed Project provides for an increase in dwelling units to increase housing supply. The proposed Project would not conflict with policies related to accessory dwelling units.
Provide support to local jurisdictions to streamline and lessen barriers to housing development that supports reduction of greenhouse gas emissions.	Consistent. Issues related to streamlining the City’s development review process and lessening barriers to the production of housing are addressed in the GPU Housing Element. However, the proposed Specific Plan provides for a substantial increase in housing units consistent with the GPU buildout for the site in proximity to transit, pedestrian circulation, and bicycle facilities to provide for multimodal transportation opportunities and reduce vehicle miles traveled to support a reduction in GHG 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.	Consistent. The proposed Specific Plan includes EV charging locations, pedestrian connectivity, and dedicated bicycle lanes and bicycle racks for convenient use.
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.	Not applicable. Issues related to technological improvements are addressed on a citywide and regional basis.
Identify ways to incorporate “micro-power grids” in communities, for example solar energy, hydrogen fuel cell power storage and power generation.	Not applicable. Issues related to “micro-power grids” would be addressed on a citywide and regional basis. The proposed Project would comply with CALGreen/Title 24 requirements and would provide onsite solar through implementation of Mitigation Measure GHG-1.
Support Implementation of Sustainability Policies	
Pursue funding opportunities to support local sustainable development implementation projects that reduce greenhouse gas emissions.	Consistent. The proposed Specific Plan would implement development standards, and provides for high-density, mixed-use development in proximity to transit and employment that would result in reduced vehicle miles traveled and related reductions in GHG emissions.
Support statewide legislation that reduces barriers to new construction and that incentivizes development near transit corridors and stations.	Consistent. The proposed Project is a land use planning project that is not related to statewide legislation. However, the proposed Project would implement new development in the transit corridor and adjacent to bus stops; and therefore, is consistent with this policy.
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.	Consistent. The proposed Project would be responsible for the payment of development impact fees and implementation of a Development Agreement to help facilitate future infrastructure, parks, and other public improvements.

2020 Connect SoCal Strategy Policy	Proposed Project Consistency with Policy
Work with local jurisdictions/communities to identify opportunities and assess barriers to implement sustainability strategies.	Consistent. The proposed Project is a land use planning project that includes sustainability design standards included in the Specific Plan in Section 5.0, <i>Design Guidelines</i> .
Enhance partnerships with other planning organizations to promote resources and best practices in the SCAG region.	Not applicable. The proposed Project is a land use planning project for a specific area of the City. This measure is intended for implementation by regional agencies.
Continue to support long range planning efforts by local jurisdictions.	Consistent. The proposed Project would implement the GPU, which is a long-range planning document; and therefore, is consistent with this policy.
Provide educational opportunities to local decisions makers and staff on new tools, best practices, and policies related to implementing the Sustainable Communities Strategy.	Consistent. The proposed Project is a land use planning project that includes sustainability design standards included in the Specific Plan in Section 5.0, <i>Design Guidelines</i> .
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.	Consistent. The City of Santa Ana has a Climate Adaptation Plan (CAP). The proposed Project would be consistent with the CAP and the Specific Plan provides land use standards and sustainability design standards that are consistent with reduction of VMT related GHG emissions/climate adaptation. Thus, the proposed Project is consistent with this policy.
Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration.	Consistent. The proposed Project is a land use planning project that includes sustainability design standards included in the Specific Plan in Section 5.0, <i>Design Guidelines</i> .
Integrate local food production into the regional landscape.	Not applicable. This measure is a regional policy and is not applicable to an urban infill development, such as that proposed by the Specific Plan Project.
Promote more resource efficient development focused on conservation, recycling, and reclamation.	Consistent. The proposed Project is a land use planning project that includes sustainability design standards including in the Specific Plan as Section 5.0, <i>Design Guidelines</i> .
Preserve, enhance, and restore regional wildlife connectivity.	Not applicable. The Project site and surrounding areas do not contain biological habitats for which wildlife connectivity would be an issue.
Reduce consumption of resource areas, including agricultural land.	Not applicable. This measure is a regional policy and not related to an urban transit-oriented environment. The Project site does not contain any resource areas, including agricultural land.
Identify ways to improve access to public park space.	Consistent. The proposed Project includes development of approximately 13.1 acres of publicly accessible park and open space areas.

Airport Environs Land Use Plan for John Wayne Airport

As described previously, SNA is located approximately 1.4 miles southeast of the Project site within the AELUP Notification area and FAR Part 77 Notification Area for the airport, but outside of the airport’s 60 CNEL Contour. Table 5.8-2 provides an assessment of the proposed Project’s consistency with the AELUP for John Wayne Airport. As detailed, the proposed Project would be consistent with airport land use plan policies and the proposed Project would not conflict with the AELUP for John Wayne Airport.

Table 5.8-2: Consistency with John Wayne Airport Land Use Plan Policies

AELUP Policy	Proposed Project Consistency with Applicable Policy
<p>Policy 3.2.1: Within the boundaries of the AELUP, any land use may be found to be inconsistent with the AELUP which:</p> <ol style="list-style-type: none"> Places people so that they are affected adversely by aircraft noise, 	<p>Consistent. The Project site is outside of the airport’s 60 CNEL contour, as shown in Figures 5.6-2 and 5.6-3, and is not subject to adverse aircraft noise. Noise from airport or aircraft operations would be below 60 dBA CNEL on the Project site. As described in Section 5.10,</p>

AELUP Policy	Proposed Project Consistency with Applicable Policy
<ol style="list-style-type: none"> 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. 	<p>Noise, the proposed Project would not result in significant impacts related to airport noise. The Project site is not located within SNA's Airport Safety Zone, as shown in Figure 5.6-1, Section 5.6, <i>Hazards and Hazardous Materials</i> and thus would not concentrate people in areas susceptible to aircraft accidents. The proposed Project buildings would be a maximum of 25 stories-high consistent with the GPU assumptions. These structure heights would not affect airport operations, and the Project site is not within the runway approach or protection zones. Also, the proposed uses would not affect aeronautical operations. Therefore, the proposed Project is consistent with Policy 3.2.1.</p>
<p>Policy 3.2.4: Noise Impact Zone "2" – Moderate Noise Impact (60 dB CNEL or greater, less than 65 dB CNEL). Noise impacts in this area are sufficient to require sound attenuation as set forth in the California Noise Insulation Standards, Title 25, California Code of Regulations. Single noise events in this area create serious disturbances to many inhabitants. Even though the Commission would not find residential units incompatible in this area, the Commission strongly recommends that residential units be limited or excluded from this area unless sufficiently sound attenuated. The residential use interior sound attenuation requirement shall be a CNEL value not exceeding an interior level of 45 dB. In addition, it is recommended that designated outdoor common or recreational areas within Noise Impact Zone 2 provide outdoor signage informing the public of the presence of operating aircraft.</p>	<p>Consistent. The Project site is not located within Noise Impact Zone 2. As described in Section 5.6, <i>Hazards and Hazardous Materials</i>, and Section 5.9, <i>Noise</i>, the proposed Project site is outside of the airport's 60 CNEL contour, as shown in Figures 5.6-2 and 5.6-3.</p> <p>Additionally, as described in Section 5.9, <i>Noise</i>, the proposed Project would comply with California Noise Insulation Standards, Title 24 California Code of Regulations that require interior noise levels to not exceed 45 dBA CNEL. Therefore, the proposed Project is consistent with Policy 3.2.4.</p>
<p>Policy 3.2.5: Runway Protection Zone "RPZ," Extreme Crash Hazard. The severe potential for loss of life and property due to accidents prohibits most land uses in this area. Only airport related uses and open space uses, including agriculture and certain types of transportation and utility uses are permitted. No buildings intended for human habitation are permitted in the RPZ. Furthermore, because of the proximity to aeronautical operations, uses in this area must not attract birds nor emit excessive glare or light, nor produce or cause steam, smoke, dust, or electronic interference so as to interfere with, or endanger, aeronautical operations.</p>	<p>Consistent. The Project site is not located within any SNA's Airport Safety Zone or Runway Protection Zone, as shown in Figure 5.6-1 in Section 5.6 <i>Hazards and Hazardous Materials</i>. Therefore, the proposed Project is consistent with Policy 3.2.5.</p>
<p>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. 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.</p>	<p>Consistent. The Project site is within the SNA FAR Part 77 Notification Imaginary Surface area, which requires notification to FAA for any project that would exceed a 100:1 slope of an imaginary surface extending outward for 20,000 feet from the nearest runway at SNA or would be more than 200 feet in height above the ground level. The proposed mixed-use buildings would be a maximum of 25 stories high; the tallest point on the buildings would be 285 feet above the existing ground level. Because the proposed Project is subject to the City's development review and permitting process, it would</p>

AELUP Policy	Proposed Project Consistency with Applicable Policy
<p>Policy 3.2.7: Airspace/Airport Inconsistency. Any structure, either within or outside of the planning area, is inconsistent with this AELUP if it:</p> <ol style="list-style-type: none"> 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. 	<p>comply with the FAA’s notification requirement and is consistent with Policy 3.2.6.</p> <p>Consistent. The proposed Project is not located within an area, and would not extend into areas, that would adversely affect the SNA operations or result in a hazard. As described previously, and in Section 5.6 <i>Hazards and Hazardous Materials</i>, and shown in Figure 5.6-1, the proposed Project location is outside of the Runway protection Zone and would not result in excessive heights and would not be considered a hazard by the FAA.</p> <p>The proposed mixed-use buildings would be a maximum of 25 stories high; and the tallest point on the buildings would be 285-feet from ground level. Although the proposed Project would require FAA’s notification, it would not affect airport operations, and would not raise the visibility minimums at SNA airport.</p> <p>Overall, the proposed structures would not adversely affect SNA aeronautical operations and would comply with AELUP and FAR Part 77 notification requirements. Therefore, the proposed Project is consistent with Policy 3.2.7.</p>
<p>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.”</p>	<p>Consistent. As detailed previously, SNA is located approximately 1.4 miles southeast of the Project site and is not located within the approach or departure zones or runway safety compatibility zones for the airport. The Project site is located outside of both the airport’s planned and actual (2019) 60 CNEL contours (Figures 5.6-2 and 5.6-3); and the site is not 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. Therefore, the proposed Project is consistent with Policy 3.3.6.</p>

General Plan Update

General Plan Land Use Designation. The Project site currently has a General Plan Land Use designation of District Center-High (DC-5), which has a maximum Floor Area Ratio (FAR) of 5.0, or 125 dwelling units per acre (du/ac) and a maximum height of 25 stories that allows up to 8,733,780 SF of mixed uses, inclusive of residential uses, within the Project site.

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. Mixed-use projects are allowed in both horizontal configurations with commercial and residential uses side by side and vertical with commercial uses on the ground floor and residential above within areas designated as District Center.

The GPU Land Use Element also states that the DC-5 designation is for “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 proposed Project would implement the City’s GPU and the DC-5 land use designation for the Project site by removing the existing low intensity vehicle-oriented commercial development on the site and provide a new mixed-use development with up to 3,750 multi-family residential units; up to 350,000 SF of commercial uses; a 250-room hotel; a senior living/continuum of care use with up to 200 units; and approximately 13.1 acres of common open space that would provide pedestrian connectivity throughout the site. The proposed Project would result in a residential density of 91 du/ac and a non-residential FAR of 2.7, which is within the DC-5 allowable residential density of up to 125 du/ac and non-residential FAR of up to 5.0.

Consistent with the DC-5 designation the proposed Project would develop new urban retail, residential mixed-use, and employment uses that would be connected to public transportation. The proposed Project would create a new activity center at the southern entrance into Santa Ana, adjacent to the existing South Coast Metro area, and would provide new urban-scale development. The proposed Project would provide a mix of uses, including residential, retail, and commercial services, recreation, and entertainment. In addition, the Project site is located within a Transit Priority Area (TPA) and High Quality Transit Area, and is adjacent to six bus routes that provide connections to regional transit services. Thus, the proposed Project would implement, and would not conflict with, the General Plan land use designation for the site.

GPU Focus Area. The Project site is located within the GPU South Bristol Street Focus Area. The GPU Land Use Element states that the intent of the South Bristol Street Focus Area is 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.

The images on page 60 of the GPU Land Use Element show high density multi-story buildings and urban open space corridors, and the text states that the images are intended to convey the desired design and character of new development, improvements to the public realm, and general atmosphere envisioned for the focus area. This includes introducing mixed use urban villages with a multi-story presence along the corridor and commercial uses that are bike friendly and transit oriented.

The proposed Project would implement the intent of the South Bristol Street Focus Area by removing the existing low intensity auto-oriented shopping center on the site and provide a new mixed-use urban village with up to 3,750 multi-family residential units; up to 350,000 SF of commercial uses; a 250-room hotel; a senior living/continuum of care use with up to 200 units; and approximately 13.1 acres of common open space that would provide pedestrian connectivity throughout the site. The proposed Project would be transit-friendly because the site is within a TPA and a High Quality Transit Area, and adjacent to six OCTA bus routes that connect to regional transportation. Additionally, the proposed Project would install on and offsite pedestrian and bicycle facilities and would include onsite bicycle parking/lockers, etc. and therefore, would be bike friendly. The proposed Project would implement the intent and GPU vision for the South Bristol Street Focus Area. Impacts related to conflict with the GPU South Bristol Street Focus Area would not occur from implementation of the proposed Project.

Land Use Consistency. As shown on Figure 3-4, the majority of the areas adjacent to the Project site within Santa Ana are also designated as DC-5, with exception of the northwest portion of the site, across from South Plaza Drive, which is designated for Medium Density Residential (MR-15). South Coast Plaza is located across Sunflower Avenue to the south of the Project site in the City of Costa Mesa and the North Costa Mesa Specific Plan which describes that South Coast Plaza is a regionally significant retail trade center served by major regional transportation facilities and services.

The areas surrounding the Project site are developed with residential, service, office, and commercial uses. Development of the site for multi-family residential, commercial (retail/restaurant/hotel), and open space

uses would integrate into the adjacent areas. The proposed Project would provide housing proximate to local employment centers, commercial retail services and restaurants for onsite residents and employees working nearby. In addition, the proposed Project would provide onsite open space and recreation activities that would integrate into the existing communities around the site. The proposed Project would provide vehicular, bicycle, and pedestrian access and would provide circulation improvements to efficiently integrate into the land uses and circulation infrastructure of the area.

Overall, the proposed Project would not result in a land use inconsistency. The proposed Project would implement a mix of uses, including multi-family residential, and would provide locational efficiency as it allows people to work, live, and obtain services within a small area, which has the potential to reduce VMT in comparison to residential development that is farther from employment and services. As described throughout this Supplemental EIR, with implementation of existing regulations, the proposed Project would not result in significant environmental impacts such as light, noise, or air quality to the adjacent existing and planned land uses. Therefore, impacts related to land use inconsistency would be less than significant.

GPU Goals, Policies, and Objectives: A detailed analysis of the proposed Project’s consistency with the applicable goals, policies, and objectives of the City’s GPU that serve to avoid or mitigate environmental impacts is provided in Table 5.8-3. As described, the proposed Project would be consistent with the relevant goals, policies, and objectives of the City’s GPU that avoid or mitigate environmental impacts, and impacts related to conflict with a GPU policy related to an environmental effect would be less than significant.

Table 5.8-3: Consistency with Relevant General Plan Update Goals, Policies, and Objectives

General Plan Update Goal, Policy, or Objective	Project Consistency
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.	Consistent. As discussed in Chapter 3.0, <i>Project Description</i> , the proposed Project site would include approximately 13.1 acres of public open space with Greenlink walking corridors to connect the mixed uses within the development as well as improve access to centers around the Project site.
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.	Consistent. As described in Chapter 3.0, <i>Project Description</i> , the proposed Project would include 13 acres of public open space which includes walking paths, parks, and active areas to encourage active lifestyles to not only those within the development but to the general public.
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.	Consistent. As described in Chapter 3.0, <i>Project Description</i> , the proposed Project would include approximately 13 acres of privately-owned open space available to the public which includes walking paths, parks, and active areas to encourage active lifestyles to not only those within the development but to the general public.
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.	Consistent. The proposed Project would not result in impacts related to public safety. The Project buildings and accesses would be developed pursuant to the California Building Codes, which would be verified through the City’s development permitting process; and as detailed in the Phase I and Phase II Environmental Site Assessments prepared for the site (Appendices J and K), the site does not contain any significant public safety related hazards. The proposed Project would also not result in hazards related to excessive glare, light, steam, smoke, dust, or electronic interference. Substantial light or glare would not be generated because exterior light fixtures and security

General Plan Update Goal, Policy, or Objective	Project Consistency
	<p>lighting would be installed pursuant to Municipal Code specifications for shielding and intensity of security lighting. The Specific Plan includes design guidelines, such that the Project buildings would not use highly reflective surfaces and would not include large areas of glass on the buildings. Therefore, the proposed Project would not generate substantial sources of glare. Also, the proposed residential, open space, hotel, and commercial uses would not generate substantial quantities of steam, smoke, and dust emissions, and emissions would be regulated by SCAQMD requirements. Therefore, the proposed Project is consistent with Policy CM-3.2.</p>
<p>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.</p>	<p>Consistent. As discussed in Chapter 3.0, <i>Project Description</i>, the 41.1-gross-acre site is currently underutilized with approximately 465,063 SF of retail commercial with large areas of surface parking. Residential development would have amenities including recreation areas, leasing offices, fitness rooms, pools/spas, business centers, etc. Residential uses would be located adjacent to public amenities including parks, open space areas, and the pedestrian-only green linkage (“Greenlink”) that connects the public open spaces throughout the Project site. The Project site is not with an Environmental Justice area.</p>
<p>Mobility Element</p>	
<p>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.</p>	<p>Consistent. As described in Section 5.13, <i>Transportation</i>, the proposed Project provides an efficient and comprehensive circulation system that would use adjacent streets that currently serve the site. In addition, as described in Section 5.10, <i>Population and Housing</i>, the proposed Project would provide residences, service uses, visitor-serving uses (e.g., hotel), retail, and restaurants near existing and planned employment areas, and public transit routes which enhances economic viability of the Project site and surrounding area. Therefore, the proposed Project is consistent with Goal M-1.</p>
<p>POLICY M-1.2: Provide a balanced and equitable multimodal circulation network that reflects current and changing needs.</p>	<p>Consistent. As described in Chapter 3.0, <i>Project Description</i>, the proposed Project is adjacent to six existing bus routes and would expand pedestrian and bicycle facilities along adjacent streets as well as within the Project site to provide a multimodal circulation network. Therefore, the proposed Project is consistent with Policy M-1.2.</p>
<p>POLICY M-1.6: Transform travelways to accommodate all users through street design and amenities, such as sidewalks, trees, landscaping, street furniture, and bus shelters.</p>	<p>Consistent. As described in Chapter 3.0, <i>Project Description</i>, Project improvements include street trees, planted setback areas, right-of-way dedication for roadway improvements, bike lane, improved sidewalk conditions, Greenlink pedestrian crossing, drop-off and loading areas, pedestrian paths, and signalization. Therefore, the proposed Project would accommodate all users through street design and amenities and would be consistent with Policy M-1.6.</p>

General Plan Update Goal, Policy, or Objective	Project Consistency
<p>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.</p>	<p>Consistent. As described in Section 5.13, <i>Transportation</i>, the proposed Project is located in a High Quality Transit Area and a Transit Priority Area near existing employment, commercial, residential, and retail destinations and in proximity to existing public bus stops and freeways, which would promote reduced VMT. The reduction in VMT would reduce land use related energy consumption in addition to implementation of the required energy efficient systems per Title 24. Therefore, the proposed Project is consistent with Policy M-1.7.</p>
<p>POLICY M-1.8: Consider air and water quality, noise reduction, neighborhood character, and street-level aesthetics when making improvements to travelways.</p>	<p>Consistent. The proposed Project would not result in hazards related to excessive glare, light, steam, smoke, dust, or electronic interference. Substantial light or glare would not be generated because exterior light fixtures and security lighting would be installed pursuant to Municipal Code specifications for shielding and intensity of security lighting. The Specific Plan Design Guidelines do not include use of highly reflective surfaces or large areas of glass on the buildings. Therefore, the proposed Project would not generate substantial sources of glare. As described in Section 5.2, <i>Air Quality</i>, operation of the proposed Project would not generate substantial quantities of steam, smoke, and dust emissions, and emissions would be regulated by SCAQMD requirements. Therefore, the proposed Project is consistent with Policy M-1.8.</p>
<p>GOAL M-3: A safe, balanced, and integrated network of travelways for nonmotorized modes of transportation that connects people to activity centers, inspiring healthy and active lifestyles.</p>	<p>Consistent. The Project site provides for efficient vehicular travel. The site is also adjacent to existing OCTA bus routes, sidewalks, and bicycle routes. The proposed Project would provide non-vehicular onsite circulation, which would connect to the existing sidewalks adjacent to the Project site. Therefore, the proposed Project is consistent with Goal M-3.</p>
<p>POLICY M-3.1: 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.</p>	<p>Consistent. As described above, the site is adjacent to existing OCTA bus routes, sidewalks, and bicycle routes that would create linkages between neighborhoods, recreational amenities, schools, employment centers, neighborhood serving commercial, and activity centers. In addition, the proposed Project includes new and/or improvements to onsite and offsite sidewalks, bicycle lanes, and bus stops. Therefore, the proposed Project encourages multi-modal and transit opportunities, and the proposed Project is consistent with Policy M-3.1.</p>
<p>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.</p>	<p>Consistent. As described above, the proposed Project would install new landscaping, shade trees, lighting, benches, bicycle parking and similar support facilities throughout the site and improvements along adjacent roadways. Therefore, the proposed Project is consistent with Policy M-3.2.</p>

General Plan Update Goal, Policy, or Objective	Project Consistency
<p>POLICY M-3.6: Enhance first and last mile connectivity to transit facilities through safe, accessible, and convenient linkages.</p>	<p>Consistent. As described in Chapter 3.0, <i>Project Description</i>, the proposed Project would include sidewalk improvements adjacent to the Project site, as well as bike improvements on South Bristol Street, MacArthur Boulevard, and Sunflower Avenue. New exterior lighting onsite would be provided to accent landscaping, Project signage, walkways, parking areas, and to provide for security. In addition, the Project site is located adjacent to six existing OCTA bus routes and the new development onsite would provide connectivity to existing transit facilities. Therefore, the proposed Project is consistent with Policy M-3.6.</p>
<p>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</p>	<p>Consistent. As described in Section 5.13, <i>Transportation</i>, the proposed Project is located near existing employment, commercial, residential, and retail destinations and adjacent to existing public bus stops and near freeways within a High Quality Transit Area and a Transit Priority Area which provides for low VMT, sustainable development, and is consistent with the broader GPU land use goals. Therefore, the proposed Project is consistent with Goal M-4.</p>
<p>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.</p>	<p>Consistent. The proposed Project would comply with existing fair-share payment programs, as set forth in the Municipal Code. Therefore, the proposed Project is consistent with Policy M-4.4.</p>
<p>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.</p>	<p>Consistent. The Project site is adjacent to existing OCTA bus stops for six different routes, sidewalks, and bicycle routes. The proposed Project would provide non-vehicular onsite and offsite circulation, which would connect to the existing sidewalks and bicycle lanes. Therefore, the proposed Project would encourage transit use and nonmotorized transportation and is consistent with Policy M-4.46.</p>
<p>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.</p>	<p>Consistent. As described in Section 5.10, <i>Noise</i>, the proposed Project would implement improvements to the Project site and adjacent roadways that would not result in traffic noise impacts to sensitive land uses. Therefore, the proposed Project is consistent with Policy M-4.8.</p>
<p>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.</p>	<p>As described in Section 5.13, <i>Transportation</i>, the Project site is located near existing employment, commercial, residential, and retail destinations and in proximity to existing public bus stops and freeways, which would promote reduced VMT from being located in a Transit Priority Area and High Quality Transit Area. The reduction in VMT would reduce related air pollutants. Therefore, the proposed Project is consistent with Policy M-4.9.</p>
<p>POLICY M-5.1: Improve the beauty, character, and function of travelways with amenities such as landscaped parkways and medians, bike lanes, public art, and other amenities.</p>	<p>Consistent. As described above, the proposed Project would install new landscaping, shade trees, lighting, benches, bicycle lanes and similar amenities facilities throughout the site with improvements along adjacent roadways. Therefore, the proposed Project is consistent with Policy M-5.1.</p>

General Plan Update Goal, Policy, or Objective	Project Consistency
<p>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.</p>	<p>Consistent. As described in Chapter 3.0, <i>Project Description</i>, the proposed Project would include setbacks with landscaped areas, sidewalks, and street trees on South Bristol Street. Street trees would also be added on MacArthur Boulevard, Plaza Drive, and Sunflower Avenue that would help to manage stormwater runoff quality. Therefore, the proposed Project is consistent with Policy M-5.4.</p>
<p>POLICY M-5.6: Encourage the use of alternative fuel vehicles and mobility technologies through the installation of supporting infrastructure.</p>	<p>Consistent. EV charging stations would be provided pursuant to Title 24 requirements. Therefore, the proposed Project is consistent with Policy M-5.6.</p>
<p>Economic Prosperity Element</p>	
<p>GOAL EP-1: Foster a dynamic local economy that provides and creates employment opportunities for all residents in the city.</p>	<p>Consistent. As described in Section 5.2, <i>Air Quality</i>, the proposed Project would help to balance jobs and housing. The proposed Project would develop a mix of land uses that would bring a wide range of employment opportunities to the area. Therefore, the proposed Project is consistent with Goal EP-1.</p>
<p>POLICY EP-1.2: Strengthen and expand citywide business attraction efforts in order to achieve the city's full employment potential.</p>	<p>Consistent. The proposed Project would bring a mixed-use development into the City of Santa Ana along with a positive contribution to the local economy through capital investment, job production, and expanded business attraction. The additional employment opportunities would assist the City in achieving its full employment potential. Therefore, the proposed Project is consistent with Policy EP-1.2.</p>
<p>POLICY EP-3.4: 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.</p>	<p>Consistent. The proposed Project would convert a retail center with large areas of surface parking lots into a mixed-use community with residential, retail, hospitality, and recreation with open spaces and gathering areas for the community. There would be a wide range of amenities that are accessible onsite and nearby through multiple means of transportation. Therefore, the proposed Project is consistent with Policy EP-3.4.</p>
<p>POLICY EP-3.10: Promote the creation of distinctive neighborhood serving districts through the renovation or redevelopment of existing strip-commercial development.</p>	<p>Consistent. As described Chapter 3.0, <i>Project Description</i>, the Project site is currently developed with approximately 465,063 SF of strip-commercial development. The proposed development would provide a distinctive neighborhood with residential, commercial, open space, and recreation areas that would connect to nearby areas through pedestrian, bicycle, and transit linkages. Therefore, the proposed Project is consistent with Policy EP-3.10.</p>
<p>Public Services Element</p>	
<p>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.</p>	<p>Consistent. 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 proposed Project is consistent with Policy PS-1.10.</p>

General Plan Update Goal, Policy, or Objective	Project Consistency
<p>GOAL PS- 2: Preserve a safe and secure environment for all people and property.</p>	<p>Consistent. The proposed Project would protect the public health and safety by compliance with existing federal, state, regional, and local regulations. Also, prior to building permit issuance, the Orange County Fire Authority and the Santa Ana Police Department would perform a plan review to ensure all applicable codes are met. Therefore, the proposed Project is consistent with Goal PS-2.</p>
<p>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.</p>	<p>Consistent. Prior to building permit issuance, Orange County Fire Authority and the Santa Ana Police Department would perform a plan review to ensure all applicable codes are met. A Fire Master Plan has been prepared and would be reviewed by the Orange County Fire Authority as part of the Subdivision Map review. Therefore, the proposed Project is consistent with Policy PS-2.1.</p>
<p>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.</p>	<p>Consistent. Through the City’s development permitting process the proposed Project would be required to comply with all applicable fire and building codes and to comply with an ongoing fire inspection program. Therefore, the proposed Project is consistent with Policy PS-2.2.</p>
<p>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.</p>	<p>Consistent. As described in Section 5.7, <i>Hydrology and Water Quality</i>, the proposed Project would include a project specific WQMP that would outline best management practices per municipal NPDES. The proposed Project would adhere to the Orange County MS4 Stormwater Permit which identifies requirements and regulations for water quality. As described in Section 5.15, <i>Utilities and Service Systems</i>, the proposed onsite drainage would reduce stormwater runoff. Therefore, the proposed Project is consistent with Policy PS-3.5.</p>
<p>POLICY PS-3.8 Implement Promote cost-effective conservation strategies and programs that increase water use efficiency.</p>	<p>Consistent. As described in Section 5.8, <i>Utilities and Service Systems</i>, the proposed Project would be required to implement CALGreen/Title 24 water conservation strategies including low flow plumbing fixtures, drought tolerant landscaping and water efficient irrigation systems. In addition, onsite drainage would flow to landscaping areas providing reuse of water resources. Thus, the proposed Project would implement cost-effective conservation strategies and increase water efficiency. Therefore, the proposed Project is consistent with Policy PS-3.8.</p>
<p>POLICY PS-3.10: Encourage new development and reuse projects to incorporate recycling and organics collection activities aligned with state waste reduction goals.</p>	<p>Consistent. The proposed Project would be required by the state and City, through the development permitting process, to provide recycling bins in trash enclosures as well as require restaurants to recycle organic materials. Therefore, the proposed Project is consistent with Policy PS-3.10.</p>
<p>POLICY PS-3.12 Maintain and upgrade sewer and water infrastructure through impact fees from new development and exploring other funding sources.</p>	<p>Consistent. As described in Section 5.16, <i>Utilities and Service Systems</i>, the proposed Project would install a new onsite water infrastructure system that would connect to water pipelines adjacent to the site. The onsite improvements include construction of a 12-inch water main in Bristol Paseo and replacement of the existing 12-inch water line in Callen’s Common with a new 12-inch water line and connection with the new onsite infrastructure. The</p>

General Plan Update Goal, Policy, or Objective	Project Consistency
	<p>proposed Project also includes offsite infrastructure improvements that would replace a portion of the 12-inch water main in South Plaza Drive from MacArthur Boulevard to Sunflower Ave with a 12-inch water main. Also, the existing 12-inch water mains in Sunflower Avenue from South Plaza Drive to Bristol Street and Bristol Street from MacArthur Boulevard to Sunflower Avenue would be replaced “in-kind” with new 12-inch water mains. Thus, the upgraded water infrastructure would have adequate capacity to serve the needs of the proposed Project, in addition to the other needs within the service areas. In addition, pursuant to permitting requirements and existing City development requirements, the new development onsite would be required to provide development impact fees to provide for maintenance and improvement of the City’s infrastructure as needed. Therefore, the proposed Project is consistent with Policy PS-3.12.</p>
<p>Conservation Element</p>	
<p>GOAL CN-1: Protect air resources, improve regional and local air quality, and minimize the impacts of climate change.</p>	<p>Consistent. As discussed previously, the site is located within a Transit Priority Area and a High Quality Transit Area and the mixed-use redevelopment on the site would promote reduced VMT from the mix of onsite uses and connections to transit, sidewalks, and bicycle routes. The reduction in VMT and infill development by the proposed Project would limit emissions and the related impacts of climate change, as detailed in Section 5.5, <i>Greenhouse Gas Emissions</i>. Therefore, the proposed Project is consistent with Policy CN-1.</p>
<p>POLICY CN-1.6: Promote development that is mixed use, pedestrian friendly, transit oriented, and clustered around activity centers.</p>	<p>Consistent. As described above, the site is located within a Transit Priority Area and a High Quality Transit Area. The mixed-use site is adjacent to existing bus stops for six OCTA bus routes; in addition to sidewalks and bicycle routes that would create linkages between neighborhoods, recreational amenities, schools, employment centers, neighborhood serving commercial, and activity centers. The proposed Project would develop an activity center and is adjacent to South Coast Plaza, which is an activity center. The proposed Project includes new onsite pedestrian and bicycle pathways and offsite sidewalk, bikeway, and bus stop improvements that would connect to existing sidewalks and bicycle routes to implement multi-modal transportation. Therefore, the mixed-use proposed Project is within an activity center, would be pedestrian friendly, and would encourage multi-modal and transit opportunities. The proposed Project is consistent with Policy CN-1.6.</p>
<p>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.</p>	<p>Consistent. As described in Section 5.10, <i>Population and Housing</i>, the proposed Project would provide residences near existing employment, shopping, and services as well as bring in a diverse range of employment opportunities. In addition, the proposed Project would assist in the jobs to housing balance and provide additional housing within an area that has limited vacancy; thus, providing a net community benefit. Therefore, the proposed Project is consistent with Policy CN-1.7.</p>

General Plan Update Goal, Policy, or Objective	Project Consistency
<p>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.</p>	<p>Consistent. As described above, the Project site is adjacent to existing OCTA bus stops for six routes and the proposed Project would provide sidewalks and bicycle lanes. Therefore, the proposed Project encourages multi-modal and transit opportunities, and the proposed Project is consistent with Policy CN-1.8</p>
<p>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.</p>	<p>Consistent. The site is adjacent to bus stops for six OCTA bus routes. The proposed Project would provide new and/or improvements to sidewalks and bikeways, and bus stop improvements that would connect to existing infrastructure. In addition, the proposed Project would install EV charging stations and secure bicycle parking. Therefore, the proposed Project is consistent with Policy CN-1.12.</p>
<p>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.</p>	<p>Consistent. As described in Chapter 3.0, <i>Project Description</i>, the proposed Project would increase the amount of greenspace and landscaping on the site. Landscaping is planned throughout the development including the open space park areas and the Greenlink which provides a walking path connection between Bristol Green and Bristol Central Park with shade trees. Therefore, the proposed Project is consistent with Policy CN-1.18.</p>
<p>GOAL CN-3: Reduce consumption of and reliance on nonrenewable energy and support the development and use of renewable energy sources.</p>	<p>Consistent. As described in Section 5.3, <i>Energy</i>, the proposed Project includes features to reduce consumption of non-renewable energy, such as solar infrastructure, EV charging stations, energy efficient appliances, and Title 24 compliant lighting and plumbing fixtures. Therefore, the proposed Project is consistent with Goal CN-3.</p>
<p>POLICY CN-3.3: Promote energy-efficient development patterns by clustering mixed use developments and compatible uses adjacent to public transportation.</p>	<p>Consistent. The Project proposes a mixed-use development adjacent to compatible commercial and residential development and adjacent to bus stops for six OCTA bus routes, which includes connections to regional transportation centers. Therefore, the proposed Project is consistent with Policy CN-3.3.</p>
<p>POLICY CN-3.4: Encourage site planning and subdivision design that incorporates the use of renewable energy systems.</p>	<p>Consistent. As described in Section 5.3, <i>Energy</i>, the proposed Project includes features to reduce consumption of non-renewable energy, such as solar infrastructure, EV charging stations, energy efficient appliances, and Title 24 compliant lighting and plumbing fixtures. Therefore, the proposed Project is consistent with Policy CN3.4.</p>
<p>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.</p>	<p>Consistent. As described in Chapter 3.0, <i>Project Description</i>, the proposed Project would increase the amount of greenspace and landscaping on the site. Landscaping is planned throughout the development including the open space areas, the Greenlink which provides a walking path connection between Bristol Green and Bristol Central Park with shade trees, and new landscaping and street trees along roadways surrounding the site. Therefore, the proposed Project is consistent with Policy CN-3.5</p>

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<p>GOAL CN-4: Conserve and replenish existing and future water resources.</p>	<p>Consistent. As described in Section 5.15, <i>Utilities and Service Systems</i>, the proposed Project would be required to implement CALGreen/Title 24 water conservation strategies including low flow plumbing fixtures, drought tolerant landscaping, and water efficient irrigation systems. In addition, onsite drainage would flow to landscaping areas. Thus, the proposed Project would implement water conservation and water efficiency. Therefore, the proposed Project is consistent with Policy CN-4.</p>
<p>POLICY CN-4.2: Encourage public and private property owners to plant native or drought-tolerant vegetation.</p>	<p>Consistent. The proposed Specific Plan includes development standards for landscaping that include use of native and drought tolerant landscaping as required by the City’s Municipal code and CALGreen/Title 24 requirements. Therefore, the proposed Project is consistent with Policy CN-4.2.</p>
<p>POLICY CN-4.4: Promote irrigation and rainwater capture systems that conserve water to support a sustainable community.</p>	<p>Consistent. As described in Section 5.7, <i>Hydrology and Water Quality</i>, the proposed Project would direct stormwater to landscaping areas for irrigation use and would include structural BMPs to filter stormwater through vegetated biotreatment systems before discharge. Therefore, the proposed Project is consistent with this policy.</p>
<p>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.</p>	<p>Consistent. As described in Section 5.7, <i>Hydrology and Water Quality</i>, the proposed Project would result in an increase in pervious surfaces on the site and a reduction in stormwater runoff. The proposed Project would include structural BMPs to filter stormwater through vegetated biotreatment systems to protect water quality. A Project specific WQMP is required to ensure that appropriate BMPs are implemented to reduce pollutant loads from the Project site. Therefore, the proposed Project is consistent with this policy.</p>
Open Space Element	
<p>GOAL OS-1: Provide an integrated system of accessible parks, recreation facilities, trails, and open space to serve the City of Santa Ana.</p>	<p>Consistent. The proposed Project includes approximately 13 acres of publicly available open space including Bristol Green, Bristol Central Park, and a Greenlink as shown in Figure 3-11 in Chapter 3.0, <i>Project Description</i>. The Specific Plan includes a conceptual community neighborhood layout that connects the community through pedestrian and bike friendly streets to the commercial and recreational open space uses on and near the site. Therefore, the proposed Project is consistent with Policy OS-1.</p>
<p>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.</p>	<p>Consistent. The proposed Project would convert an underutilized commercial shopping center into a mixed-use development that includes residential, retail, hospitality, and recreational uses with open spaces with greenway corridors, landscape areas, and gathering areas for the community. There would be a wide range of amenities that are accessible by sidewalks, greenways, and bicycle paths. Therefore, the proposed Project is consistent with Policy OS-1.5.</p>

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<p>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 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.</p>	<p>Consistent. The proposed Project would include approximately 13 acres of publicly accessible open space including a proposed central park, two plaza spaces, and a Greenlink as shown in Figure 3-11. Development applicants would be required to pay park fees as set forth in the Municipal Code. The Specific Plan includes a conceptual community neighborhood layout that connects the community through multi-modal pedestrian and bike friendly streets. Therefore, the proposed Project is consistent with Policy OS-1.9.</p>
<p>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.</p>	<p>Consistent. As described in the Specific Plan, open space would consist of approximately 13 acres, comprised of Bristol Central Park, Greenlink, Bristol Green, Bristol Plaza/Retail Village Open Space, and the Bristol Street Expanded Parkway. The Bristol Central Park would be a publicly accessible open space with open play areas, walkways, seating, and a private recreation facility. The Greenlink would be a landscaped walking path with seating. The Bristol Green would include landscaping, seating, and walkways. The Bristol Plaza would include retail, seating, outdoor dining, and landscaping. Therefore, the proposed Project is consistent with Policy OS-2.</p>
<p>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.</p>	<p>Consistent. As described in the Specific Plan, open space would consist of approximately 13 acres, comprised of Bristol Central Park, Greenlink, Bristol Green, Bristol Plaza/Retail Village Open Space, and the Bristol Street Expanded Parkway. The Bristol Central Park would be a publicly accessible open space with open play areas, walkways, seating, and a private recreation facility. The Greenlink would be a landscaped walking path with seating. The Bristol Green would include landscaping, seating, and walkways. The Bristol Plaza would include seating, outdoor dining, and landscaping. Therefore, the proposed Project is consistent with Policy OS-2.</p>
<p>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.</p>	<p>Consistent. As described in Chapter 3.0, <i>Project Description</i>, the proposed Project would include native and drought tolerant landscaping (Figure 3-11). Landscaping is planned throughout the development including a Greenlink which provides a walking path connection between Bristol Green and Bristol Central Park with shade trees and garden areas. Additionally, new landscaping and street trees along roadways surrounding the site. Therefore, the proposed Project is consistent with Policy OS-3.5.</p>
<p>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.</p>	<p>Consistent. Implementation of the Related Bristol Specific Plan would result in sustainable development through the provision of open space and trees within the site. Drought tolerant plant materials and water efficient irrigation systems would be used to conserve water, and vegetated biotreatment systems would be used to treat rainwater. Additionally, development facilitated by the Specific Plan would use materials and technologies that minimize environmental impacts, reduce energy and resource consumption, and promote long lasting development. Window technologies such as physical sun shading, low e-coatings, and insulated daylighting panels would be used</p>

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	where appropriate to decrease the energy costs associated with cooling buildings during most of the year. Therefore, the proposed Project is consistent with Policy OS-3.6.
Noise Element	
GOAL N-1: Ensure that existing and future land uses are compatible with current and projected local and regional noise conditions.	Consistent. As described in Section 5.9, <i>Noise</i> , the land uses implemented by the proposed Project would be compatible with current and projected (Year 2045) noise conditions. Impacts related to noise would be less than significant and Conditions of Approval would ensure that design specifications result in noise attenuation in compliance with Title 24 and City regulations. Therefore, the proposed Project is consistent with this policy.
POLICY N-1.2: Encourage functional and attractive designs to mitigate excessive noise levels.	Consistent. As described in Section 5.9, <i>Noise</i> , Conditions of Approval would ensure that design specifications result in noise attenuation in compliance with Title 24 and City regulations. Therefore, the proposed Project is consistent with this policy.
POLICY N-1.4: Protect noise sensitive land uses from excessive, unsafe, or otherwise disruptive noise levels.	Consistent. As detailed in the noise analysis provided in Section 5.9, <i>Noise</i> , the proposed Project’s operational uses would not generate high noises levels. Also, as described above the proposed Project is consistent with the General Plan land use designation of DC-5. Therefore, the proposed Project is consistent with this policy.
GOAL N-2: Reduce the impact of known sources of noise and vibration.	Consistent. As described in Section 5.9, <i>Noise</i> , the proposed Project would result in less than significant impacts related to noise and vibration. Thus, the proposed Project is consistent with Goal N-2.
POLICY N-2.1: Reduce noise generated from traffic, railroads, transit, and airports to the extent feasible.	Consistent. As described in Section 5.9, <i>Noise</i> , the proposed Project would result in less than significant impact related to traffic noise. Thus, the proposed Project is consistent with Policy N-2.1.
POLICY N-2.2: Minimize noise impacts from commercial and industrial facilities adjacent to residential uses or zones where residential uses are permitted.	Consistent. As described in Section 5.9, <i>Noise</i> , the proposed Project would result in less than significant noise impacts from operation of the proposed commercial uses on the existing and proposed residences. No industrial uses are proposed as a part of the proposed Project. Thus, the proposed Project is consistent with Policy N-2.2.
POLICY N-2.3: Minimize the effects of intermittent, short-term, or other nuisance noise sources.	Consistent. As described in Section 5.9, <i>Noise</i> , the proposed Project would result in less than significant impacts with mitigation incorporated related to construction noise and other potential short-term nuisance noise sources. Thus, the proposed Project is consistent with Policy N-2.3.
GOAL N-3: Protect sensitive land uses from airport related noise impacts.	Consistent. As described in Section 5.9, <i>Noise</i> , the Project site is located outside of the SNA 60 CNEL noise contour and the site is not subject to airport related noise impacts. The proposed Project is consistent with Goal N-3.

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<p>POLICY N-3.1: Residential development within the John Wayne Airport (SNA) 65 dB(A) CNEL Noise Contour or greater is not supported.</p>	<p>Consistent. As described in Section 5.9, <i>Noise</i>, and Section 5.6, <i>Hazards and Hazardous Materials</i>, the Project site is not within the SNA 60 dBA CNEL Noise Contour and would not result in airport noise related hazards to new sensitive uses on the Project site. Thus, the proposed Project is consistent with Policy N-3.1.</p>
Safety Element	
<p>GOAL S-1: Protect life and minimize property damage, social and economic disruptions caused by flood and inundation hazards.</p>	<p>Consistent. The proposed Project is not located within a flood inundation area and would protect the public health and safety by compliance with existing federal, state, regional, and local regulations related to natural hazards and other public safety concerns. Therefore, the proposed Project is consistent with Goal S-1.</p>
<p>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.</p>	<p>Consistent. As described in Section 5.8, <i>Hydrology and Water Quality</i>, the proposed Project would result in an increase in pervious surfaces on the site and a reduction in stormwater runoff. The proposed Project would include structural BMPs to filter stormwater through vegetated biotreatment systems to protect water quality. A Project specific WQMP is required to ensure that appropriate BMPs are implemented to reduce pollutant loads from the Project site. Therefore, the proposed Project is consistent with this policy.</p>
<p>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.</p>	<p>Consistent. As described in Section 5.7, <i>Hazards and Hazardous Materials</i>, Phase I and II Environmental Site Assessments were prepared for the Project site and determined that potential impacts from hazardous materials would be less than significant with implementation of Mitigation Measure HAZ-1, PPP HAZ-1&2, and PPP WQ-1&2. The proposed Project is consistent with this policy.</p>
<p>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.</p>	<p>Consistent. As described in Section 5.7, <i>Hazards and Hazardous Materials</i>, Phase I and Phase II Environmental Site Assessments were prepared for the Project site and determined that impacts from hazardous materials would be less than significant with implementation of Mitigation Measure HAZ-1, PPP HAZ-1&2, and PPP WQ-1&2. Thus, the proposed Project is consistent with Policy S-2.4.</p>
<p>GOAL S-3: Provide a safe environment for all Santa Ana residents and workers while minimizing risk.</p>	<p>Consistent. As described in Section 5.7, <i>Hazards and Hazardous Materials</i>, Phase I and Phase II Environmental Site Assessments were prepared for the Project site and determined that impacts from hazardous materials would be less than significant with implementation of Mitigation Measure HAZ-1, PPP HAZ-1&2, and PPP WQ-1&2. Thus, the proposed Project is consistent with Policy S-2.4.</p>
<p>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.</p>	<p>Consistent. The proposed Project would comply with all California Building Code requirements as well as the recommendations provided by the Geotechnical Investigation (Appendix G of this EIR), which would be ensured through the City development permitting process. Thus, the proposed Project is consistent with Policy S-3.2.</p>

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GOAL S-4: Protect the safety of the general public from aircraft hazards.	Consistent. As discussed in Table 5.8-2, the proposed Project is considered consistent with the SNA AELUP policies. Therefore, the proposed Project is consistent with Goal S-4.
POLICY S-4.1: For development Projects that include structures higher than 200 feet above existing grade, the City shall inform the Airport Land Use Commission (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.	Consistent. The Project site is within the SNA FAR Part 77 Notification Imaginary Surface Area, which requires notification to FAA for any project that would be more than 200 feet in height above the ground level. The proposed mixed-use buildings would be a maximum of 25 stories high; the tallest point of the buildings would be 285 feet from ground level. Because the proposed Project is subject to the City’s development review and permitting process, it would comply with the FAA and is consistent with Policy S-4.1.
POLICY S-4.2: Do not approve buildings and structures that would penetrate Federal Aviation Regulation (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.	Consistent. The Project site is within the SNA FAR Part 77 Notification Imaginary Surface area, which requires notification to FAA for any project that would exceed a 100:1 slope of an imaginary surface extending outward for 20,000 feet from the nearest runway at SNA or would be more than 200 feet in height above the ground level. The proposed mixed-use buildings would be a maximum of 25 stories high; the tallest point on the buildings would be 285-feet above the existing ground level. Because the proposed Project is subject to the City’s development review and permitting process, it would comply with the FAA’s notification requirement and is consistent with Policy S-4.2.
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.	Consistent. The proposed Project would also not result in hazards related to excessive glare, light, steam, smoke, dust, or electronic interference. Substantial light or glare would not be generated because exterior light fixtures and security lighting would be installed pursuant to Municipal Code specifications for shielding and intensity of security lighting. The Specific Plan includes design guidelines, such that the proposed Project buildings would not use highly reflective surfaces and would not include large areas of glass on the buildings. Therefore, the proposed Project would not generate substantial sources of glare. Also, the proposed residential, open space, hotel, and commercial uses would not generate substantial quantities of steam, smoke, and dust emissions, and emissions would be regulated by SCAQMD requirements. Therefore, the proposed Project is consistent with Policy S-4.3.
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.	Consistent. The Project site is not located within Noise Impact Zone 2. As described in Section 5.6 <i>Hazards and Hazardous Materials</i> and Section 5.9, <i>Noise</i> , the proposed Project site is outside of the airport’s 60 CNEL contour, as shown in Figures 5.6-2 and 5.6-3. Therefore, the proposed Project is consistent with Policy S-4.6.
Land Use Element	
POLICY LU-1.1: Foster compatibility between land uses to enhance livability and promote healthy lifestyles.	Consistent. The proposed Project would provide new residential, commercial, hotel, and open space land uses adjacent to existing residential, commercial, and office land uses that would be compatible. The proposed Project

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	includes sidewalks and bicycle improvements to provide for walking and bicycling to onsite and offsite areas. The residential uses would be located adjacent to public amenities including parks, open space areas, and the pedestrian-only Greenlink that connects the public open spaces throughout the Project site, which would enhance livability and promote healthy lifestyle. Thus, the proposed Project is consistent with Policy LU-1.1.
POLICY LU-1.5: Incentivize quality infill residential development that provides a diversity of housing types and accommodates all income levels and age groups.	Consistent. The proposed Project would provide new infill mixed-use development that would provide a diversity of multi-family housing types and could accommodate a range of income levels and age groups. The proposed Project would develop a variety of uses that are accessible by multiple modes of transportation. Thus, the proposed Project is consistent with Policy LU-1.5.
POLICY LU-1.6: Encourage residential mixed-use development, within the City’s District Centers, Urban Neighborhoods, and adjacent to high quality transit.	Consistent. The proposed Project is a mixed-use development including multi-family residential uses within a District Center and a High Quality Transit Area, adjacent to high quality transit as described herein. Thus, the proposed Project is consistent with Policy LU-1.6.
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.	Consistent. As described in section 5.11, <i>Public Services</i> , the proposed Project would not result in public facility and service deficiencies. Thus, the proposed Project is consistent with Policy LU-1.9.
GOAL LU-2: Provide a balance of land uses that meet Santa Ana’s diverse needs.	Consistent. As described in Section 5.10, <i>Population and Housing</i> , the proposed Project would provide residences near existing employment, shopping, and services as well as create employment opportunities. The proposed Project would generate new capital investment, jobs, and development opportunities in the area. Thus, the proposed Project is consistent with Policy LU-2.
POLICY LU-2.1: Provide a broad spectrum of land uses and development that offer employment opportunities for current and future Santa Ana residents.	Consistent. As described in Section 5.10, <i>Population and Housing</i> , the proposed Project would provide residences near existing employment, shopping, and services as well as bring in a diverse range of employment opportunities. The proposed Project would generate new capital investment, jobs, and employment opportunities in the area. Thus, the proposed Project is consistent with Policy LU-2.1.
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.	Consistent. As described in Chapter 3.0, <i>Project Description</i> , the mixed-use proposed Project would include development of up to 350,000 SF of commercial retail uses. This commercial space would provide for capture of local spending and offer a range of employment opportunities. Therefore, the proposed Project is consistent with Policy LU-2.2
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.	Consistent. The proposed Project would provide a new infill development with multi-family housing to accommodate a range of income levels throughout the City and would improve the jobs to housing balance, as detailed in Section 5.10, <i>Population and Housing</i> . The proposed Project includes a range of onsite uses to reduce the need to travel. The site is within a TPA, a High Quality Transit Corridor, and adjacent to transit. The proposed Project would improve sidewalks, bike lanes, and bus stops, which

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	<p>would provide multimodal options to reduce VMT. In addition, the proposed Project includes parks, open space areas, and roadways that can be closed for programmed community events that would promote social interaction. Therefore, the proposed Project is consistent with Policy LU-2.2</p>
<p>POLICY LU-2.7: Support land use decisions that encourage the creation, development, and retention of businesses in Santa Ana.</p>	<p>Consistent. As described in Chapter 3.0, <i>Project Description</i> and Section 5.11, <i>Population and Housing</i>, the proposed Project would provide a mix of uses near existing employment, shopping, and services, which would create a high intensity urban village that supports the retention of businesses in Santa Ana. Therefore, the proposed Project is consistent with Policy LU-2.7.</p>
<p>POLICY LU-2.10: Focus high density residential in mixed-use villages, designated planning focus areas, Downtown Santa Ana, and along major travel corridors.</p>	<p>Consistent. The Project proposes a mixed-use development including high density multi-family residences located within the designated South Bristol Street Focus Area and along the Bristol Street major travel corridor. Therefore, the proposed Project is consistent with Policy LU-2.10.</p>
<p>POLICY LU-3.1: Support new development which provides a net community benefit and contributes to neighborhood character and identity.</p>	<p>Consistent. The Specific Plan would redevelop the underutilized shopping center through the development of a mixed-use community with residential, retail, hospitality, and ancillary uses, new landscaping, open space, and community gathering locations that would provide a new community benefit and contribute to neighborhood character and identity. Therefore, the proposed Project is consistent with Policy LU-3.1.</p>
<p>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.</p>	<p>Consistent. As discussed in Section 5.1, <i>Air Quality</i>, the Project would not cause a significant human health risk to adjacent land uses as a result of Project construction or operation. Construction and operation of the proposed Project would not exceed thresholds related to localized significance or diesel particulate matter emissions with implementation of mitigation that requires use of Tier 4 construction equipment. Thus, impacts related to sensitive receptors would not occur; and the proposed Project is consistent with Policy LU-3.9.</p>
<p>POLICY LU-4.1: Promote complete neighborhoods by encouraging a mix of complementary uses, community services, and people places within a walkable area.</p>	<p>Consistent. The proposed Project would provide a complete neighborhood by providing a mix of residential, commercial, hotel, and open space land uses that would be compatible with adjacent to existing residential, commercial, and office land uses. The proposed Project includes sidewalk, bike lane, and bus stop improvements to provide for walking and bicycling to onsite and offsite areas. The residential uses would be located adjacent to public amenities including parks, open space areas, and the pedestrian-only Greenlink that connects the public open spaces throughout the Project site. Thus, the proposed Project is consistent with Policy LU-4.1.</p>

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<p>POLICY LU-4.5: Concentrate development along high-quality transit corridors to reduce vehicle miles traveled (VMT) and transportation-related carbon emissions.</p>	<p>Consistent. The site is within a TPA, a High Quality Transit Corridor, and adjacent to transit routes. The proposed Project would install and improve sidewalks and bikeway and bus stop improvements. Non-vehicular options would reduce VMT and transportation-related carbon emissions. Therefore, the proposed Project is consistent with Policy LU-4.5.</p>
Historic Preservation Element	
<p>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.</p>	<p>Consistent. As detailed in Section 5.2, <i>Cultural Resources</i>, the Project site and surrounding area do not include historic resources. Potential unknown archaeological resources that may exist on site would be protected through existing regulations and mitigation measures. Also, as detailed in Section 5.4, <i>Geology and Soils</i>, mitigation has been included to protect potential paleontological resources; and Section 5.14, <i>Tribal Cultural Resources</i>, includes mitigation measures that would actively protect any potential tribal cultural resources that may be uncovered during construction of the proposed Project. Therefore, the proposed Project is consistent with Policy HP-1.4.</p>
Urban Design Element	
<p>POLICY UD-1.4: Incorporate public safety design features into private and public developments to prevent loitering, vandalism, and other undesirable activities.</p>	<p>Consistent. As described above, the proposed Project would incorporate public safety design features, such as security systems, and would implement the crime prevention measures through design. The development plans would be reviewed by the Police Department for security concerns, as described in Section 5.11, <i>Public Services</i>. Therefore, the proposed Project is consistent with Policy UD-1.4.</p>
<p>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.</p>	<p>Consistent. As described in Chapter 3.0, <i>Project Description</i>, the proposed Project would increase the amount of greenspace and landscaping on the site. Landscaping is planned throughout the development including the open space park areas, and the Greenlink, which provides a walking path connection between Bristol Green and Bristol Central Park with shaded trees. Shade trees are proposed throughout landscaped areas and along roadways adjacent to the site. Therefore, the proposed Project is consistent with Policy UD-2.10.</p>
<p>POLICY UD-2.11: Encourage sustainable development through the use of drought-tolerant landscaping, permeable hardscape surfaces, and energy-efficient building design and construction.</p>	<p>Consistent. As required by the City Municipal Code and the proposed Specific Plan, drought tolerant plant materials would be used to conserve water, efficient irrigation would be used, and biofiltration mechanisms would be used to treat rainwater. Additionally, development facilitated by the Specific Plan would use materials and technologies that minimize environmental impacts, reduce energy, and resource consumption, and promote long lasting development. Window technologies such as physical sun shading, low e-coatings, and insulated daylighting panels would be utilized where appropriate to decrease the energy costs associated with cooling buildings during most of the year. Therefore, the proposed Project is consistent with Policy US-2.11.</p>

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<p>POLICY UD-3.3: Promote a safe environment that facilitates social interaction and improves active transportation along corridors.</p>	<p>Consistent. The proposed Project would provide new infill residential that would provide a range of onsite uses that would be implemented pursuant to the requirements of the California Building Code and City Municipal Code to provide safety. The site is within a TPA, a High Quality Transit Corridor, and adjacent to transit. The proposed Project would install new sidewalks and bikeway and bus stop improvements, which would improve active transportation along corridors. In addition, the proposed Project includes parks, open space areas, and roadways that can be closed for programming community events that would promote social interaction. Therefore, the proposed Project is consistent with Policy UD-3.3.</p>
<p>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.</p>	<p>Consistent. The proposed Project would include improvements to South Bristol Street and create a Class I Bike Trail and setback area with planted areas, sidewalks, and street trees. The proposed Project also includes the Greenlink, which would be a walking path that would connect residential areas, commercial areas, Bristol Green, and Bristol Central Park, which would create a network of parks and activity areas. Thus, the proposed Project is consistent with Policy UD-3.6.</p>

Applicable Zoning and Other Regulations Governing Scenic Quality

Zoning Designation. The existing zoning of the Project site is General Commercial (C-2) north of Callen’s Common, and Commercial Residential (CR) and General Commercial (C-2) south of Callen’s Common, as shown on Figure 3-5, *Existing Zoning*, in Chapter 3.0, *Project Description*. As listed previously, the C-2 zone is designated for general commercial uses that include: wholesale, automotive garages, retail, etc. Structures in the C-2 zone are limited to 35 feet in height, and 15-foot-wide yards are required adjacent to arterial streets, such as Sunflower Avenue and Bristol Street. The C-R zone is designated to integrate commercial and residential land uses that include retail and services, professional offices, one-family and multi-family dwellings, etc. with landscaped setbacks.

The proposed Project includes a zone change of the site from C-2 and CR to Specific Plan to implement the General Plan land use designation and Focus Area designations, as described previously. The City’s Municipal Code Section 41-592 states that the provisions in a specific plan shall control the use and development of property in the SP district; that the purpose of the SP district is to provide for the orderly implementation of the area, provide specific development standards for the site, and limit uses to those stated in the applicable specific plan.

In this case, the proposed SP zoning of the site would implement the GPU objectives for the South Bristol Street Focus Area, pursuant to the DC-5 General Plan land use designation. The proposed Specific Plan includes design guidelines for the non-auto oriented urban scale development that address site layout, building scaling and massing, building entry design, vehicle and pedestrian circulation, parking and loading area requirements, landscaping design requirements, and more. Because the proposed SP zoning would implement the existing land use designation and GPU vision for the South Bristol Street Focus Area, impacts related to conflict with a land use plan, policy, or program would not occur from implementation of the proposed Project.

Other Regulations Governing Scenic Quality. The proposed Specific Plan includes design guidelines that would govern scenic quality on the Project site pursuant to the DC-5 land use designation and objectives for

the South Bristol Street Focus Area. For example, structures located at major intersections would be required to incorporate statement design features to signify a sense of arrival to the area. Visual corridors would be protected through compliance with the proposed Specific Plan guidelines which require building setbacks from public view corridors, including a 20-foot average setback from South Bristol Street; a 15-foot average setback from MacArthur Boulevard, Sunflower Avenue, and South Plaza Drive; and a 12-foot average setback from Callen’s Common, which are measured from the front of curb. Setbacks would be landscaped. Varying building setbacks and materials, along with landscaping as required by the Specific Plan design guidelines, would implement the GPU policies governing scenic quality. Table 5.8-4 describes the proposed Project’s consistency with the relevant GPU goals and policies regarding aesthetics. As detailed, the proposed Project would be consistent with and implement the GPU policies through the design guidelines that are included in the proposed Specific Plan.

Table 5.8-4: Consistency with Relevant General Plan Update Goals and Policies Related to Aesthetics

General Plan Update Goal, Policy	Project Consistency
<p>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.</p>	<p>Consistent. As described in Chapter 3.0, <i>Project Description</i>, the proposed Project would implement landscaping that would include ground cover, shrubs, trees, and security lighting within the Project site and along the proposed Greenlink, sidewalks, and bikeway and bus stop improvements that would improve the attractiveness of the circulation corridors and provide a safe experience. Therefore, the proposed Project is consistent with Policy M-3.2.</p>
<p>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.</p>	<p>Consistent. The proposed Specific Plan includes design guidelines regarding building placement, architectural features, access, and landscaping to create a desirable and active area. As described in Chapter 3.0, <i>Project Description</i>, the Project would include offsite improvements to sidewalks, bicycle lanes, and landscaping. Pedestrian access to the site would be provided directly from the adjacent roadways, and parking lots would be mostly located in subterranean structures. Therefore, the proposed Project is consistent with Policy M-4.5.</p>
<p>GOAL M-5: Design a transportation system that is attractive, safe, state-of-the-art, and supports community, environmental, and conservation goals.</p>	<p>Consistent. As described in Chapter 3.0, <i>Project Description</i>, the proposed Project would include offsite multimodal transportation improvements to facilitate pedestrian, bicycle, and transit transportation and support community, environmental, and conservation goals. The transportation system improvements would be completed in compliance with California Building and Fire Code regulations, as verified through the City’s development review and permitting process to ensure safety. Therefore, the proposed Project is consistent with Goal M-5.</p>
<p>POLICY M-5.1: Improve the beauty, character, and function of travelways with amenities such as landscaped parkways and medians, bike lanes, public art, and other amenities.</p>	<p>Consistent. As described in Chapter 3.0, <i>Project Description</i>, the proposed Project would include improvements such as landscaped parkways and medians, bike lanes, public art, and other amenities. This includes landscaped setbacks, median modifications, and bike lane along Bristol Street; landscaped setbacks and bike lane along MacArthur Boulevard; landscaped setbacks along South Plaza Drive; landscaped bike lane along Sunflower; and landscaped parkways with sidewalks on Callen’s Common. In addition, the proposed Project includes the Greenlink which is a landscaped pedestrian path that would provide pedestrian mobility, character, and function. Street trees would be installed along all streets within and adjacent to the Project</p>

General Plan Update Goal, Policy	Project Consistency
	<p>site. New exterior lighting onsite would be provided to accent landscaping, Project signage, walkways, parking areas, and to provide security. Therefore, the proposed Project is consistent with Policy M-5.1.</p>
<p>POLICY OS-3.7: Maintain, preserve, and enhance the City’s urban forest as an environmental, economic, and aesthetic resource to improve residents’ quality of life.</p>	<p>Consistent. The existing shopping center contains limited non-native landscaping. The proposed Specific Plan, including the Design Guidelines, addresses open space/greenspace and landscaping. Open space and landscaping throughout the Project site would include the Greenlink, a landscaped pedestrian paseo with shade and flowering trees. Bristol Green is proposed as an open space area in the central portion of the site that would include trees, seating areas, and walkways. The Specific Plan notes that large shade trees would be used in open space areas to provide shade. Street trees would be installed along all streets within and adjacent to the Project site. The Specific Plan Design Guidelines include a Conceptual Landscape Plan with a variety of trees for use. Therefore, the proposed Project is consistent with Policy OS-3.7.</p>
<p>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.</p>	<p>Consistent. The proposed Specific Plan includes land uses and design guidelines that would promote the City’s image as a cultural, governmental, and business-friendly regional center. The proposed Project would include public art installations in open space areas and pedestrian-oriented walkways. In addition, the Specific Plan describes that spaces at the corners of major intersections (Sunflower at Bristol and MacArthur at Bristol) should incorporate statement design features to signify a sense of arrival and serve as landmark elements. This may include architectural design of buildings, inviting open space areas, or freestanding public art in the form of installations, monuments, fountains, public engagement features, or similar features. In addition, the proposed Project would create an activity hub that brings housing, jobs, retail and shopping opportunities, visitors, and activity to the site. Therefore, the proposed Project is consistent with Policy LU-2.8.</p>
<p>GOAL LU-3: Preserve and improve the character and integrity of existing neighborhoods and districts.</p>	<p>Consistent. The proposed Project would redevelop the site with a mix of land uses, the character of which would be regulated by the Specific Plan design guidelines that are consistent with the GPU’s vision for the South Bristol Street Focus Area and the DC-5 land use designation. The design guidelines require development projects to include public art installations that would improve the City’s character. In addition, the proposed redevelopment of the Specific Plan area would improve the integrity of the existing area by providing development that is consistent with the adjacent to South Coast Plaza by providing housing, jobs, retail, restaurant, hotel, and open space. Therefore, the proposed Project is consistent with Goal LU-3.</p>
<p>POLICY LU-3.4: Ensure that the scale and massing of new development is compatible and harmonious with the surrounding built environment.</p>	<p>Consistent. The proposed Project would have a maximum of 25 stories in accordance with the General Plan designation of DC-5. Building frontages would utilize various materials and setback depths to give a varying massing. The Design Guidelines in the proposed Specific Plan ensure that the scale and massing of development would be compatible and harmonious with the surrounding built environment. In addition, the Development Regulations in Section 4 of the proposed Specific Plan set forth</p>

General Plan Update Goal, Policy	Project Consistency
	a reduced height limit for blocks adjacent to the existing multi-family housing to the west of the Project site. The Specific Plan Design Guidelines provide that streetscape furnishings and materials should complement the architecture of surrounding buildings and surrounding open space. Therefore, the proposed Project is consistent with Policy LU-3.4
GOAL UD-1: Improve the physical character and livability of the City to promote a sense of place, positive community image, and quality environment.	Consistent. The proposed Specific Plan includes Design Guidelines to ensure that new development promotes a sense of place, positive community image, and quality environment as intended by the GPU Focus Area and DC-5 land use designation. As described previously, the proposed Specific Plan would require public art installations that promote a sense of place and positive community image. In addition, all of the development projects within the Specific Plan would go through the City's Development Project Review process where proposed developments are reviewed for consistency with the Specific Plan, municipal code, and other applicable regulations related to improving the physical character and livability of the City. Therefore, the proposed Project is consistent with Goal UD-1.
POLICY UD-1.1: Ensure all developments feature high quality design, materials, finishes, and construction.	Consistent. The Design Guidelines in the proposed Specific Plan ensure that all developments feature high quality design, materials, finishes, and construction. Therefore, the proposed Project is consistent with Policy UD-1.1.
POLICY UD-1.2: Require public art as part of major developments and the public realm improvements.	Consistent. The Specific Plan includes requirements for public art installations. The proposed Project would include public art installations in open space areas and pedestrian-oriented walkways. In addition, the Specific Plan describes that spaces at the corners of major intersections (Sunflower at Bristol and MacArthur at Bristol) should incorporate statement design features to signify a sense of arrival and serve as landmark elements. This may include architectural design of buildings, inviting open space areas, or freestanding public art in the form of installations, monuments, fountains, public engagement features, or similar features. Therefore, the proposed Project is consistent with Policy UD-1.2
POLICY UD-1.3: Encourage site design that clearly defines public spaces through building placement and orientation.	Consistent. The proposed Specific Plan Design Guidelines include site planning guidelines that state that buildings should be located to define, connect, and activate public and private open spaces as usable plazas, parks, and gathering spaces. Spaces at the corners of major intersections (Sunflower at Bristol and MacArthur at Bristol) would incorporate design features to signify a sense of arrival to the Specific Plan area and serve as landmark elements for the Project site. This may include the architectural design of buildings, inviting open space areas, or freestanding features such as an obelisk or other similar monumentation or public art. Buildings should be located directly adjacent to the pedestrian walkway to promote ease of access and an urban environment. Therefore, the proposed Specific Plan is consistent with Policy UD-1.3.
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.	Consistent. The proposed Specific Plan includes various plazas, open space, people places, and pedestrian connections with the public realm. The Bristol Central Park would be the primary community open space and recreational area within the northern neighborhood portion of the site, would promote community

General Plan Update Goal, Policy	Project Consistency
	<p>interaction. The proposed Greenlink would be a linear vegetated link between Bristol Green and Bristol Central Park and other areas on the site that would encourage interaction. In addition, the site includes roadways that can be closed for programming community events that would promote social interaction. Therefore, the proposed Specific Plan is consistent with Policy UD-1.5.</p>
<p>GOAL UD-2: Improve the built environment through sustainable development that is proportional and aesthetically related to its setting.</p>	<p>Consistent. As described in Chapter 3.0, <i>Project Description</i>, the proposed Project would provide excellence in architectural design through the use of materials and colors, building treatments, landscaping, and open space courtyards. In addition, as described in Section 5.16, <i>Utilities and Service Systems</i>, the proposed Project would be developed pursuant to the CALGreen Code and provide a sustainable development. Onsite drainage would be routed to landscape areas and runoff would be filtered. In addition, the Development Regulations in Section 4 of the proposed Specific Plan set forth a reduced height limit for blocks adjacent to the existing multi-family housing to the west of the Project site to provide development that is proportional to its setting. Therefore, the proposed Project is consistent with Policy UD-2.</p>
<p>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.</p>	<p>Consistent. The proposed Specific Plan includes design guidelines regarding building placement, architectural features, access, and landscaping to enhance the existing environment and provide sustainable streetscape treatments that are consistent on each corridor. Therefore, the proposed Project is consistent with Policy UD-2.1.</p>
<p>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.</p>	<p>Consistent. The Specific Plan includes landscape buffers and buffers provided by landscaped setbacks along perimeter roadways. The Specific Plan Design Guidelines include a variety of massing strategies to reduce the visual impact of larger buildings and provide pedestrian orientation. Project buildings would include using step-backs, cornice lines, or changes in material. Additionally, where medium- or high-rise buildings are located adjacent to low rise structures (e.g., 3-story town houses, single-story retail) the massing strategy would consider the contrast in scale and create a cohesive experience for the public realm. In addition, the Development Regulations in Section 4 of the Specific Plan set forth a reduced height limit for blocks adjacent to the existing multi-family housing to the west of the Project site, and each development project would go through the City’s Development Project Review process that would ensure the scale and bulk compatibility of new development. Therefore, the proposed Project is consistent with Policy UD-2.2.</p>
<p>GOAL UD-3: Create and maintain safe and attractive travelways through coordinated streetscape design.</p>	<p>Consistent. As described in Chapter 3.0, <i>Project Description</i>, the proposed Project would include landscaped parkways and medians, bike lanes, public art, and other amenities. This includes landscaped setbacks, median modifications, and bike lane along Bristol Street; landscaped setbacks and bike lane along MacArthur Boulevard; landscaped setbacks along South Plaza Drive; landscaped bike lane along Sunflower; and landscaped parkways with sidewalks on Callen’s Common. In addition, the proposed Project includes the Greenlink which is a landscaped pedestrian path that would provide pedestrian mobility, character, and function. Street trees would be installed along all</p>

General Plan Update Goal, Policy	Project Consistency
	streets within and adjacent to the Project site. New exterior lighting onsite would be provided to accent landscaping, Project signage, walkways, parking areas, and to provide security. The transportation system improvements would be completed in compliance with California Building and Fire Code regulations, as verified through the City’s development review and permitting process to ensure safety. Therefore, the proposed Project is consistent with Goal UD-3.
POLICY UD-3.2: Strengthen and activate the design of paths and adjacent development through enhanced and cohesive streetscapes, architectural themes, and landscaping.	Consistent. The proposed Specific Plan includes design guidelines regarding building placement, architectural features, access, and landscaping to enhance the existing environment and provide sustainable streetscape treatments that are consistent on each corridor. Street trees would be installed along all streets within and adjacent to the Project site. New exterior lighting onsite would be provided to accent landscaping, Project signage, walkways, parking areas, and to provide security. Therefore, the proposed Project is consistent with Policy 3.2.

This is consistent with the findings of the GPU FEIR, which determined that the GPU would be consistent with land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating an environmental effect; including the SNA AELUP and the SCAG RTP/SCS; and that impacts would be less than significant.

5.8.7 CUMULATIVE IMPACTS

The cumulative study area for land use and planning includes the City of Santa Ana and nearby areas in the City of Costa Mesa. As shown in Table 5-1 and Figure 5-1, the vicinity of the Project site includes numerous projects within the City of Santa Ana and City of Costa Mesa. A large portion of these projects consist of multi-family residential, commercial, and office developments; which are similar, consistent, and complementary to the proposed Specific Plan mixed-use development.

As described previously, the proposed Project would not physically divide an established community. Therefore, the proposed Project would not have the potential to have a cumulatively considerable impact related to physically dividing communities. Also, as described previously, the proposed Project would implement the GPU land use designation of the Project site and South Bristol Street Focus Area objectives. The site is located within a TPA and a High-Quality Transit Corridor, and the proposed Project is consistent with the SCAG’s 2020 Connect RTP/SCS as detailed in Table 5.8-1. The proposed Project is consistent with the SNA AELUP policies as detailed in Table 5.8-2. Also, as detailed in Tables 5.8-3 and 5.8-4, the proposed Project is consistent with all of the relevant GPU goals and policies. Furthermore, the proposed zone change would provide consistency with the existing GPU land use designation and focus area development objectives. Because the proposed Project 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 the proposed Project, which has the purpose of avoiding or mitigating an environmental effect, the proposed Project would not cumulatively contribute to such an impact that could occur from related projects. As a result, cumulative impacts related to land use and planning from the proposed Project would not be cumulatively considerable.

5.8.8 EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS, OR POLICIES

There are no applicable regulations related to land use and planning that would reduce potential impacts.

5.8.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impacts LU-1 and LU-2 would be less than significant.

5.8.10 MITIGATION MEASURES

GPU FEIR Mitigation Measures

No mitigation measures related to land use were included in the GPU FEIR.

Proposed Specific Plan Project Mitigation Measures

No new mitigation measures are required for the proposed Project.

5.8.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to land use and planning would be less than significant.

REFERENCES

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5.9 Noise

5.9.1 INTRODUCTION

This Supplemental EIR section evaluates the potential noise and vibration impacts that could result from implementation of the proposed Project. It discusses the existing noise environment within and around the Project site, as well as the regulatory framework for regulation of noise. This section analyzes the effect of the proposed Project on the existing ambient noise environment during demolition, construction, and operational activities; and evaluates the proposed Project's noise effects for consistency with relevant local agency noise policies and regulations. The analysis in this section also addresses impacts related to groundborne vibration. Information in this section is based on the:

- *City of Santa Ana General Plan Update*
- *City of Santa Ana General Plan Update FEIR*
- *City of Santa Ana Municipal Code*
- *Acoustical Assessment, Appendix N*

Noise and Vibration Terminology

Various noise descriptors are utilized in this EIR analysis, and are summarized as follows:

dB: Decibel, the standard unit of measurement for sound pressure level.

dBA: A-weighted decibel, an overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.

Leq: The equivalent sound level, which is used to describe noise over a specified period of time, typically 1 hour, in terms of a single numerical value. The Leq of a time-varying signal and that of a steady signal are the same if they deliver the same acoustic energy over a given time. The Leq may also be referred to as the average sound level.

Lmax: The instantaneous maximum noise level experienced during a given period of time.

Lmin: The instantaneous minimum noise level experienced during a given period of time.

Lx: The sound level that is equaled or exceeded "x" percent of a specified time period. The "x" thus represents the percentage of time a noise level is exceeded. For instance, L50 and L90 represents the noise levels that are exceeded 50 percent and 90 percent of the time, respectively.

Ldn: Also termed the "day-night" average noise level (DNL), Ldn is a measure of the average of A-weighted sound levels occurring during a 24-hour period, accounting for the greater sensitivity of most people to nighttime noise by weighting noise levels at night (penalizing" nighttime noises). Noise between 10:00 p.m. and 7:00 a.m. is weighted by adding 10 dBA to take into account the greater annoyance of nighttime noises.

CNEL: The Community Noise Equivalent Level, which, similar to the Ldn, is the average A-weighted noise level during a 24-hour day that is obtained after an addition of 5 dBA to measured noise levels between the hours of 7:00 p.m. to 10:00 p.m. and after an addition of 10 dBA to noise levels between the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.

The "ambient noise level" is the background noise level associated with a given environment at a specified time and is usually a composite of sound from many sources from many directions.

Effects of Noise

Noise is generally loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity that is a nuisance or disruptive. The effects of noise on people can be placed into four general categories:

- Subjective effects (e.g., dissatisfaction, annoyance)
- Interference effects (e.g., communication, sleep, and learning interference)
- Physiological effects (e.g., startle response)
- Physical effects (e.g., hearing loss)

Although exposure to high noise levels has been demonstrated to cause physical and physiological effects, the principal human responses to typical environmental noise exposure are related to subjective effects and interference with activities. Interference effects refer to interruption of daily activities and include interference with human communication activities, such as normal conversations, watching television, telephone conversations, and interference with sleep. Sleep interference effects can include both awakening and arousal to a lesser state of sleep. With regard to the subjective effects, the responses of individuals to similar noise events are diverse and are influenced by many factors, including the type of noise, the perceived importance of the noise, the appropriateness of the noise to the setting, the duration of the noise, the time of day and the type of activity during which the noise occurs, and individual noise sensitivity.

In general, the more a new noise level exceeds the previously existing ambient noise level, the less acceptable the new noise level will be by those hearing it. With regard to increases in A-weighted noise levels, the following relationships generally occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived.
- Outside of the laboratory, a 3-dBA change in noise levels is considered to be a barely perceivable difference.
- A change in noise levels of 5 dBA is considered to be a readily perceivable difference.
- A change in noise levels of 10 dBA is subjectively heard as doubling of the perceived loudness.

Noise Attenuation

Stationary point sources of noise, including mobile sources such as idling vehicles, attenuate (lessen) at a rate of 6 dBA per doubling of distance from the source over hard surfaces to 7.5 dBA per doubling of distance from the source over hard surfaces, depending on the topography of the area and environmental conditions (e.g., atmospheric conditions, noise barriers [either vegetative or manufactured]). Thus, a noise measured at 90 dBA 50 feet from the source would attenuate to about 84 dBA at 100 feet, 78 dBA at 200 feet, 72 dBA at 400 feet, and so forth. Widely distributed noise, such as a large industrial facility spread over many acres or a street with moving vehicles, would typically attenuate at a lower rate, approximately 4 to 6 dBA per doubling of distance from the source.

Hard sites are those with a reflective surface between the source and the receiver, such as asphalt or concrete surfaces or smooth bodies of water. No excess ground attenuation is assumed for hard sites and the changes in noise levels with distance (drop-off rate) is simply the geometric spreading of the noise from the source. Soft sites have an absorptive ground surface such as soft dirt, grass, or scattered bushes and trees. In addition to geometric spreading, an excess ground attenuation value of 1.5 dBA (per doubling distance) is normally assumed for soft sites. Line sources (such as traffic noise from vehicles) attenuate at a rate between 3 dBA for hard sites and 4.5 dBA for soft sites for each doubling of distance from the reference measurement.

Fundamentals of Vibration

Vibration is energy transmitted in waves through the ground or man-made structures. These energy waves generally dissipate with distance from the vibration source. There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings but is not always suitable for evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals. Instead, the human body responds to average vibration amplitude often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body. Decibel notation (VdB) is commonly used to measure RMS. VdB serves to reduce the range of numbers used to describe human response to vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receivers for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment.

The background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings.

5.9.2 REGULATORY SETTING

Caltrans Vibration Guidance Manual

There are no vibration standards that are specifically applicable to the proposed Project, hence, California Department of Transportation’s (Caltrans) Transportation and Construction Vibration Guidance Manual guidelines are used as a screening tool for assessing the potential for adverse vibration effects related to human perception, which are listed in Table 5.9-1. It should be noted that the human annoyance threshold of 0.04 is less (more conservative) than the Federal Transit Administration (FTA) building damage threshold for a reinforced concrete building.

Table 5.9-1: Vibration Screening Standards

Caltrans Guidelines	Peak Particle Velocity for Continuous Sources (PPV) (in/sec)
Human Annoyance	
Barely Perceptible	0.01
Distinctly Perceptible	0.04
Strongly Perceptible	0.10
Severe	0.40

Source: Caltrans Transportation and Construction Vibration Guidance Manual, September 2013, Tables 19 & 20.

Title 24, California Building Code

State regulations related to noise include requirements for the construction of new hotels, motels, apartment houses, and dwellings other than detached single-family dwellings that are intended to limit the extent of noise transmitted into habitable spaces. These requirements are collectively known as the California Noise Insulation Standards and are found in California Code of Regulations, Title 24 (known as the Building Standards Administrative Code), Part 2 (known as the California Building Code), Appendix Chapters 12 and 12A. For limiting noise transmitted between adjacent dwelling units, the noise insulation standards specify the extent to which walls, doors, and floor ceiling assemblies must block or absorb sound. For limiting noise from exterior sources, the noise insulation standards set forth an interior standard of DNL 45 dBA in any habitable room and, where such units are proposed in areas subject to noise levels greater than DNL 60 dBA require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard. If the interior noise level depends upon windows being closed, the design for the structure must also specify a ventilation or air conditioning system to provide a habitable interior environment.

The mandatory measures for non-residential buildings states that new construction shall provide an interior noise level that does not exceed an hourly equivalent level of 50 dBA Leq in occupied areas during any hour of operation. Title 24 standards are enforced through the building permit application process in the City.

County of Orange General Aviation Noise Ordinance

To reduce noise from operation of 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 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 Noise Element

The City's GPU Noise Element includes the following goals and policies that are relevant to the proposed Project:

- GOAL N-1:** Ensure that existing and future land uses are compatible with current and projected local and regional noise conditions.
- POLICY N-1.1:** Utilize established Citywide Noise Standards and guidelines to inform land use decisions and guide noise management strategies.
- POLICY N-1.2:** Encourage functional and attractive designs to mitigate excessive noise levels.
- POLICY N-1.4:** Protect noise sensitive land uses from excessive, unsafe, or otherwise disruptive noise levels.
- GOAL N-2:** Reduce the impact of known sources of noise and vibration.
- POLICY N-2.1:** Reduce noise generated from traffic, railroads, transit, and airports to the extent feasible.
- POLICY N-2.2:** Minimize noise impacts from commercial and industrial facilities adjacent to residential uses or zones where residential uses are permitted.

- POLICY N-2.3:** Minimize the effects of intermittent, short-term, or other nuisance noise sources.
- GOAL N-3:** Protect sensitive land uses from airport related noise impacts.
- POLICY N-3.1:** Residential development within the John Wayne Airport (SNA) 65 dB(A) CNEL Noise Contour or greater is not supported.
- POLICY N-3.2:** Advocate that future flight path selection be directed away from existing noise sensitive land uses.
- POLICY N-3.3:** 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.

The City's Noise Element also includes standards related to excessive noise levels. The City's General Plan noise standards for noise-sensitive land uses are provided in Table 5.9-2.

Table 5.9-2: City of Santa Ana General Plan Noise Element Standards

Land Use Category	Sensitive Land Use	Noise Level (dBA CNEL)	
		Interior	Exterior
Residential	Single-family, duplex, multi family	45	65
Institutional	Hospital, school classroom/playgrounds, church, library	45	65
Open Space	Parks	--	65

Source: City of Santa Ana Noise Element

City of Santa Ana Municipal Code

Pursuant to the City's Municipal Code Section 18-313, noise levels at residential properties are restricted from exceeding certain noise levels for extended periods of time. Table 5.9-3 provides the Municipal Code exterior noise standards that are applied to residential properties.

Table 5.9-3: City of Santa Ana Municipal Code Residential Noise Standards

Time	Permissible Noise Levels (dBA)
10:00 p.m. to 7:00 a.m.	55 dB(A)
7:00 a.m. to 10:00 p.m.	50 dB(A)

Source: City of Santa Ana Municipal Code, Article VI, Section 18-312.

With respect to construction-related noise, Section 18-314 (Special Provisions) of the City's Municipal Code specifies that noise sources associated with construction activities are exempt from the City's established noise standards as long as the activities do not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or any time on Sunday or a federal holiday.

5.9.3 ENVIRONMENTAL SETTING

Existing Noise Levels

To assess the existing noise level environment, short-term noise measurements were taken at 6 locations and 24-hour noise level measurements were taken at 4 locations, which are shown in Figure 5.9-1. A description of these locations and the existing noise levels are provided below and listed in Table 5.9-4.

Table 5.9-4: Existing Noise Measurements

Site	Location	Measurement Period	Duration	Leq (dBA)
Short-Term Noise Measurements				
ST-1	1101 West Stevens Ave, near the southeast corner of the Project site	1:56 – 2:06 p.m.	10 Minutes	58.4
ST-2	3333 Bristol Street, near the southeast corner of the Project site	2:20 – 2:30 p.m.	10 Minutes	58.8
ST-3	South Coast Metro, near the southwest corner of the Project site	2:37 – 2:47 p.m.	10 Minutes	59.5
ST-4	3772 South Plaza Drive, west of the Project site	2:59 – 3:09 p.m.	10 Minutes	60.9
ST-5	3400 South Plaza Drive, near the northwest corner of the Project site	3:18 – 3:28 p.m.	10 Minutes	62.6
ST-6	1200 West MacArthur Blvd, near northeast corner of the Project site	3:38 – 3:48 p.m.	10 Minutes	71.0
Long-Term Noise Measurements				
LT-1	Northeast corner of Callen’s Common and South Plaza Drive	1/18/23 to 1/19/23	24 hours	61.6 / 55.9
LT-2	Southeast corner of MacArthur Boulevard and South Plaza Drive	1/23/23 to 1/24/23	24 hours	68.0 / 63.2
LT-3	Along the west side of Bristol Street, approximately 300 feet south of MacArthur Boulevard	1/24/23 to 1/25/23	24 hours	68.2 / 65.4
LT-4	Along the west side of Bristol Street, approximately 130 feet north of Callen’s Common	2/1/23 to 2/2/23	24 hours	62.2 / 59.1

Source: Acoustical Assessment, Appendix N.

In addition, existing roadway noise levels were calculated for the roadway segments in the Project vicinity. This task was accomplished using the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108) and existing traffic volumes from the proposed Project traffic analysis. The average daily noise levels along roadway segments proximate to the Project site are included in Table 5.9-5. As shown, the existing traffic-generated noise levels on Project-vicinity roadways currently range from 53.9 dBA CNEL to 69.5 dBA CNEL 100 feet from the centerline. As previously described, CNEL is 24-hour average noise level with a 5 dBA “weighting” during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA “weighting” added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime hours.

Table 5.9-5: Existing Traffic Noise Levels

Roadway Segment	ADT	dba CNEL
Fairview Street, between Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	56,973	69.5
Fairview Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana)	54,025	64.7
Fairview Street, between Sunflower Avenue and S. Coast Drive (Costa Mesa)	48,087	67.8
Fairview Street, between S. Coast Drive and I-405 NB Ramps (Costa Mesa)	58,231	68.3
Fairview Street, between I-405 NB Ramps and I-405 SB Ramps (Costa Mesa/Caltrans)	43,770	67.1
Fairview Street, between I-405 SB Ramps and Baker Street (Costa Mesa)	48,390	67.7
Bear Street, between Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	17,008	62.8
Bear Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana/Costa Mesa)	17,989	63.4
Bear Street, between Sunflower Avenue and S. Coast Drive (Costa Mesa)	29,134	65.7
Bear Street, between S. Coast Drive and Paularino Avenue (Costa Mesa)	30,398	65.7
Bear Street, between Paularino Avenue and Baker Street (Costa Mesa)	38,267	66.3
S. Plaza Drive, between MacArthur Boulevard and Callen's Common (Santa Ana)	5,308	54.3
S. Plaza Drive, between Callen's Common and Sunflower Avenue (Santa Ana)	4,843	53.9
Bristol Street, between Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	44,293	67.4
Bristol Street, between MacArthur Boulevard and Callen's Common (Santa Ana)	46,145	67.7
Bristol Street, between Callen's Common and Sunflower Avenue (Santa Ana)	44,768	67.5
Bristol Street, between Sunflower Avenue and Anton Boulevard (Costa Mesa)	49,274	68.2
Bristol Street, between Anton Boulevard and I-405 NB Ramps (Costa Mesa)	56,559	69.5
Bristol Street, between I-405 NB Ramps and I-405 SB Ramps (Costa Mesa/Caltrans)	58,259	68.7
Bristol Street, between I-405 SB Ramps and Paularino Avenue (Costa Mesa)	39,269	66.7
Bristol Street, between Paularino Avenue and Baker Street (Costa Mesa)	40,662	67.1
Flower Street, between Dyer Road and MacArthur Boulevard (Santa Ana)	15,150	61.1
Flower Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana)	9,338	59.0
Main Street, between Dyer Road and MacArthur Boulevard (Santa Ana)	30,688	66.9
Main Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana)	23,929	65.8
Main Street, between Sunflower Avenue and Red Hill Avenue (Santa Ana/Irvine)	23,638	65.9
Segerstrom Avenue, between Fairview Street and Bear Street (Santa Ana)	21,253	63.9
Segerstrom Avenue, between Bear Street and Bristol Street (Santa Ana)	28,544	65.1
Segerstrom Avenue, between Bristol Street and Flower Street (Santa Ana)	23,189	64.2
Dyer Road, between Flower Street and Main Street (Santa Ana)	29,175	65.3
MacArthur Boulevard, between Fairview Street and Bear Street (Santa Ana)	31,076	65.8
MacArthur Boulevard, between Bear Street and S. Plaza Drive (Santa Ana)	37,959	66.7
MacArthur Boulevard, between S. Plaza Drive and Bristol Street (Santa Ana)	34,622	66.3
MacArthur Boulevard, between Bristol Street and Flower Street (Santa Ana)	37,835	66.6
MacArthur Boulevard, between Flower Street and Main Street (Santa Ana)	38,325	66.7
MacArthur Boulevard, between Main Street and SR-55 SB Ramps (Santa Ana)	48,923	67.8
MacArthur Boulevard, between SR-55 SB Ramps and SR-55 NB Ramps (Santa Ana/Irvine/Caltrans)	50,476	67.7
Sunflower Avenue, between Fairview Street and Bear Street (Santa Ana/Costa Mesa)	16,071	62.6
Sunflower Avenue, between Bear Street and S. Plaza Drive (Santa Ana/Costa Mesa)	28,528	65.6
Sunflower Avenue, between S. Plaza Drive and Bristol Street (Santa Ana/Costa Mesa)	27,615	65.3
Sunflower Avenue, between Bristol Street and Flower Street (Santa Ana/Costa Mesa)	21,571	65.4

Roadway Segment	ADT	dBA CNEL
Bristol Street, south of Baker Street (Santa Ana)	27,756	65.3

Source: Acoustical Assessment, Appendix N.

Noise Measurement Locations



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Sensitive Receptors

Sensitive receptors are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include: residences, schools, hospitals, and recreation areas. Existing offsite sensitive noise receptors where someone can remain for 24-hours in the vicinity of the Project site consists of residences. The closest offsite residences are located 130 feet (40 meters) to the west of the site as listed in Table 5.9-6.

Table 5.9-6: Closest Sensitive Receptors to the Project Site

Receptor Description	Distance and Direction from the Project Site
Multi-family Residences	130 feet to the west
Multi-family Residences	292 feet to the northwest
Multi-family Residences	460 feet to the east
Bomo Koral Park	1,580 feet to the east

Source: Acoustical Assessment, Appendix N

John Wayne Airport

John Wayne Airport (SNA) is located approximately 1.4 miles southeast of the Project site, which is to the west of the primary aircraft approach corridor. The Project site is located outside of both the airport's planned and actual (2019) 60 CNEL contours (Section 5.6, *Hazards and Hazardous Materials*, Figures 5.6-2 and 5.6-3). In addition, the General Aviation Noise Ordinance restricts airport operations between 11:00 p.m. and 7:00 a.m., to limit the hours of noise generated by SNA.

5.9.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to result in:

- NOI-1 Generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- NOI-2 Generate excessive groundborne vibration or groundborne noise levels;
- NOI-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.

Construction Noise and Vibration

- The proposed Project may result in a potentially significant impact related to construction noise if Project-related construction activities:
 - Occur between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or any time on Sunday or a federal holiday (City of Santa Ana Municipal Code, Section 18-314(e); or
 - Create noise levels which exceeds the Federal Transit Administration (FTA) threshold of 80 dBA (8-hour Leq) for residential uses and 85 dBA (8-hour Leq) for non-residential uses to evaluate construction noise impacts. FTA's nighttime construction noise threshold (potentially needed for

Project concrete pours only) are 70 dBA (8-hour Leq) for residential uses and 85 dBA (8-hour Leq) for commercial non-residential uses.,

- The proposed Project may result in a potentially significant impact related to vibration if Project-related construction activities generate vibration levels which exceed the Caltrans building damage vibration level threshold for older residential structures of 0.2 in/sec PPV, or the distinctly perceptible human annoyance vibration level threshold of 0.04 in/sec PPV at nearby sensitive receiver locations (Caltrans Transportation and Construction Vibration Guidance Manual, Tables 19 and 20).

Offsite Traffic Noise

- The proposed Project may result in a potentially significant impact related to offsite traffic noise if the noise levels at existing and future noise-sensitive land uses (e.g., residential, etc.):
 - Are less than 60 dBA CNEL and the project creates a *readily perceptible* 5 dBA CNEL or greater project-related noise level increase; or
 - Range from 60 to 64 dBA CNEL and the project creates a *barely perceptible* 3 dBA CNEL or greater project-related noise level increase; or
 - Already exceeds 65 dBA CNEL, and the project creates a community noise level impact of greater than 1.5 dBA CNEL.

Operational Noise

- The proposed Project may result in a potentially significant operational noise impact if Project-related operational (stationary source) noise levels exceed the exterior 55 dBA daytime (7:00 a.m. to 10:00 p.m.) or 50 dBA nighttime (10:00 p.m. to 7:00 a.m.) noise level standards for sensitive residential land uses.

5.9.5 METHODOLOGY

Construction Noise

To identify the temporary construction noise contribution to the existing ambient noise environment, the construction noise levels anticipated from usage of construction equipment needed to implement the proposed Project were combined with the existing ambient noise level measurements at the sensitive receiver locations. The construction noise levels are compared against the thresholds listed previously to assess the level of significance associated with temporary construction noise level impacts.

Operational Noise

The primary source of noise associated with the operation of the proposed Project would be from vehicular trips. The expected roadway noise level increases from vehicular traffic were calculated using the Federal Highway Administration (FHWA) traffic noise prediction model and the average daily traffic volumes from the Traffic Impact Analysis prepared for the proposed Project. As detailed in Section 5.13, *Transportation*, the proposed Project is anticipated to generate a net increase of approximately 7,328 daily trips, 1,219 AM peak hour trips and 688 PM peak hour 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 listed previously.

Secondary sources of noise would include new stationary sources (such as heating, ventilation, and air conditioning units) associated with the new buildings on the Project site. The increase in noise levels generated

by these activities has been quantitatively estimated and compared to the applicable noise standards listed previously.

Vibration

Aside from noise levels, groundborne vibration would also be generated during construction of the proposed Project by various construction-related activities and equipment; and could be generated by truck traffic traveling to and from the Project site. The potential ground-borne vibration levels resulting from construction activities occurring from the proposed Project were estimated by data published by the Federal Transit Administration (FTA). Thus, the groundborne vibration levels generated by these sources have also been quantitatively estimated and compared to the applicable thresholds of significance listed previously.

5.9.6 ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR addressed impacts related to noise in Chapter 5.12. Temporary construction is expected to generate high levels of noise, ranging from maximums of 71 to 101 dBA. The City of Santa Ana noise ordinance, which restricts construction from 7:00 AM to 8:00 PM Monday through Saturday, would help limit noise disturbance. Mitigation measures listed in N-1 address construction noise related impacts. However, because construction may occur near noise-sensitive sites and may occur for prolonged periods of time, construction noise impacts would remain significant and unavoidable.

The GPU FEIR also determined that buildout of the GPU would increase local traffic, which in turn may increase noise levels past established standards. The GPU FEIR determined that there are no feasible mitigation measures to reduce project-generated traffic noise; therefore, noise impacts due to traffic are significant and unavoidable.

In addition, the GPU FEIR determined that impacts related to groundborne vibration would be less than significant with implementation of Mitigation Measures N-2 to N-4. Regarding airport noise, the GPU EIR determined that impacts would be less than significant with compliance with applicable Noise Element policies.

Proposed Specific Plan Project

IMPACT NOI-1: THE 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.

Less than Significant Impact with Mitigation Incorporated.

Construction

Noise generated by construction equipment would include a combination of trucks, power tools, concrete mixers, and portable generators that when combined can reach high levels. For each Project phase, construction is expected to occur in the following stages: demolition, excavation and grading, building construction, architectural coating, paving. Project construction would not include pile driving. Buildings would use a mat foundation and any piles would be drilled and cast-in-place (i.e., not driven). Noise levels generated by heavy construction equipment can range from approximately 76 dBA to 88 dBA when measured at 50 feet, and between 67.7 dBA and 79.7 at 130 feet from the noise source, as shown on Table 5.9-7.

Table 5.9-7: Typical Construction Noise Levels

Equipment	Typical Noise Level (dBA) at 50 feet from Source	Typical Noise Level (dBA) at 130 feet from Source
Air Compressor	80	71.7
Backhoe	80	71.7
Compactor	82	73.7
Concrete Mixer	85	76.7
Concrete Pump	82	73.7
Concrete Vibrator	76	67.7
Crane, Mobile	83	74.7
Dozer	85	76.7
Generator	82	73.7
Grader	85	76.7
Impact Wrench	85	76.7
Jack Hammer	88	79.7
Loader	80	71.7
Paver	85	76.7
Pneumatic Tool	85	76.7
Pump	77	68.7
Roller	85	76.7
Saw	76	67.7
Scraper	85	76.7
Shovel	82	73.7
Truck	84	75.7

Source: Acoustical Assessment, Appendix N

However, per Section 18-314 (Special Provisions) of the City’s Municipal Code, noise sources associated with construction activities are exempt from the City’s established noise standards as long as the activities do not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or any time on Sunday or a federal holiday. The proposed Project’s construction activities would occur pursuant to these regulations. Thus, the proposed Project would be in compliance with the City’s construction-related noise standards.

Construction noise would be temporary in nature as the operation of each piece of construction equipment would not be constant throughout the construction day, and equipment would be turned off when not in use. The typical operating cycle for a piece of construction equipment involves one or two minutes of full power operation followed by three or four minutes at lower power settings. The construction equipment would include a combination of trucks, power tools, concrete mixers, and portable generators. Also, the location of construction equipment would vary throughout the site and would not occur at a fixed location for extended periods of time. To provide a conservative evaluation, the construction noise analysis assumed simultaneous operation of the two loudest pieces of equipment closest to sensitive receptors and the remaining equipment mix at an average distance. However, construction activities would occur throughout the Project site and would not be concentrated at a single point near sensitive receptors. Further, it is unlikely that multiple pieces of equipment would operate within the same area closest to sensitive receptors during Project construction. The nature of construction is such that all equipment is not used simultaneously and not used at the same location (because equipment serves different purposes) and equipment is spread across the construction area. Because the analysis assumes that the noisiest equipment would operate concurrently at the construction boundary closest to the nearest sensitive receptor, it provides represents a conservative analysis of potential

impacts. Construction noise levels drop off at a rate of about 6 dBA per doubling of distance between the noise source and receptor.

Phase 1. Construction activity for Phase 1 would be as close as 130 feet from the closest offsite residences, and noise from Phase 1 construction at the closest nearby receiver location would range from 65.4 to 75.7 dBA Leq (as shown on Table 5.9-8), which would not exceed the 80 dBA Leq daytime construction noise level threshold. Therefore, construction noise impacts related to Phase 1 would be less than significant.

Table 5.9-8: Phase 1 Construction Noise Levels at Closest Offsite Sensitive Receptor

Construction Phase	Worst Case Modeled Exterior Noise Level (dBA Leq)	Noise Threshold (dBA Leq)	Exceeded?
Demolition	75.7	80	No
Site Preparation	74.2	80	No
Grading	75.4	80	No
Building Construction	73.0	80	No
Paving	74.9	80	No
Architectural Coating	65.4	80	No

Source: Acoustical Assessment, Appendix N

Phase 2. Construction activity for Phase 2 would be as close as 410 feet from the closest offsite residences. As shown on Table 5.9-9, noise from Phase 2 construction at the closest nearby receiver locations would range from 55.4 to 68.0 dBA Leq. This would not exceed the 80 dBA Leq daytime construction noise level threshold. Therefore, construction noise impacts to offsite sensitive receptors related to Phase 2 would be less than significant.

Table 5.9-9: Phase 2 Construction Noise Levels at Closest Offsite Sensitive Receptor

Construction Phase	Worst Case Modeled Exterior Noise Level (dBA Leq)	Noise Threshold (dBA Leq)	Exceeded?
Demolition	67.0	80	No
Site Preparation	67.2	80	No
Grading	68.0	80	No
Building Construction	66.3	80	No
Paving	66.7	80	No
Architectural Coating	55.4	80	No

Source: Acoustical Assessment, Appendix N

In addition, Phase 2 construction would occur after Phase 1 is occupied. The onsite receptors in Phase 1 would be located as close as 130 feet away from the Phase 2 construction activity area where heavy equipment would be located. The loudest Phase 2 noise level would occur during grading and would be 75.6 dBA at the Phase 1 residences located 130 feet away, which would not exceed the 80 dBA Leq daytime construction noise level threshold at residential receiver locations. Therefore, construction noise impacts related to Phase 2 would be less than significant.

Phase 3. As shown on Table 5.9-10, construction activity for Phase 3 would be as close as 130 feet from the closest offsite residences, and noise from Phase 3 construction at the nearby receiver locations would

range from 65.4 to 75.9 dBA Leq. This would not exceed the 80 dBA Leq daytime construction noise level threshold. Therefore, construction noise impacts to offsite sensitive receptors related to Phase 3 would be less than significant.

Table 5.9-10: Phase 3 Construction Noise Levels at Closest Offsite Sensitive Receptor

Construction Phase	Worst Case Modeled Exterior Noise Level (dBA Leq)	Noise Threshold (dBA Leq)	Exceeded?
Demolition	75.9	80	No
Site Preparation	74.8	80	No
Grading	75.9	80	No
Building Construction	73.7	80	No
Paving	75.2	80	No
Architectural Coating	65.4	80	No

Source: Acoustical Assessment, Appendix N

In addition, Phase 3 construction would occur after Phase 1 and Phase 2 are occupied. The onsite receptors in Phases 1 and 2 would be located as close as 130 feet away from the Phase 3 construction activity. The loudest Phase 3 noise level would occur during demolition and grading and would be 76.5 dBA at the closest Phase 1 and Phase 2 residences located 130 feet away. Therefore, Phase 3 construction would not exceed the 80 dBA Leq daytime construction noise level threshold at residential receiver locations. Therefore, construction noise impacts related to Phase 3 would be less than significant.

Although noise generated from construction of Phases 1, 2, and 3 would be less than significant, the proposed Project would still be required to implement GPU FEIR Mitigation Measure N-1, which includes construction requirements to limit noise. Implementation of these measures would further reduce noise generated from Project construction at sensitive receptor locations.

The proposed Project would result in less impacts than the construction noise impacts that were identified in the GPU FEIR, which were identified as potentially significant. Therefore, construction noise impacts related to the proposed Project would not exceed those previously identified.

Offsite Construction Noise. During Phase 1 construction, offsite improvements would also occur in the rights-of-way adjacent to the Project site. The offsite improvements include the installation and upgrade of water, stormwater, and sewer utilities, as well as roadway improvements that include sidewalks, bicycle facilities, landscaping, intersection improvements, median reconstruction, etc. The offsite improvements would include excavators, loaders, and trucks during pavement demolition and trenching activities and pavers, rollers, and loaders for paving activities.

Because offsite construction would occur within roadways, equipment would move linearly and would not operate in a fixed location for extended durations. The distance assumptions for offsite construction noise represent the worst-case noise scenario because construction activities would typically not be located near a sensitive receptor for the entire construction period. In addition, construction noise levels are not constant, and in fact, construction activities and associated noise levels would fluctuate and generally be brief and sporadic, depending on the type, intensity, and location of construction activities. Construction noise would also be acoustically dispersed and would be masked by surrounding roadway noise. Table 5.9-11 shows that the proposed Project’s offsite construction noise would not exceed the FTA’s standard. Additionally, when the worst-case offsite noise level (77.4 dBA during demolition) is combined with the worst-case onsite construction noise level (75.7 dBA during Phase 1 demolition), noise levels would be 79.6 dBA, which is below

the FTA’s 80 dBA standard. Therefore, construction noise impacts from offsite improvements would be less than significant. In addition, GPU FEIR Mitigation Measure N-1, which includes construction requirements to limit noise would be required to be implemented, which would further reduce noise generated from proposed Project construction at sensitive receptor locations.

Table 5.9-11: Offsite Project Improvements Construction Noise Levels

Construction Phase	Offsite Receptor Location		Worst Case Modeled Exterior Noise Level (dBA Leq)	Noise Threshold (dBA Leq)	Exceeded?
	Direction	Distance (feet)			
Demolition	Northwest	75	77.4	80	No
Trenching	Northwest	75	76.4	80	No
Paving	Northwest	75	75.4	80	No

Source: Acoustical Assessment, Appendix N

Actual construction-related noise activities would be lower than the conservative levels described above and would cease upon completion of construction. Due to the variability of construction activities and equipment for the proposed Project, overall construction noise levels would be intermittent and would fluctuate over time. In addition, the noise modeling assumes that construction noise is constant, when, in fact, construction activities and associated noise levels would fluctuate and generally be brief and sporadic, depending on the type, intensity, and location of construction activities.

Nighttime Concrete Pour Construction Noise. The proposed Project could include nighttime concrete pour activities. The nighttime concrete pours would use the following construction equipment: concrete mixer trucks, concrete pump truck, concrete vibrator, generator, trucks, and air compressors. Table 5.9-12 shows that construction noise associated with nighttime concrete pours would be up to 71.0 dBA at the closest offsite sensitive receptors. Therefore, nighttime construction noise would exceed FTA’s nighttime threshold of 70 dBA at offsite sensitive receptors and Project Mitigation Measure NOI-1 has been included to require enclosures for stationary (e.g., generators, air compressors, etc.) concrete pour equipment and buffer distances for mobile equipment (including concrete trucks) to minimize nighttime construction noise. Enclosures would muffle noise from stationary equipment and minimum buffer distances would ensure mobile equipment operates at a sufficient distance to attenuate noise levels. Table 5.9-12 shows that with implementation of GPU FEIR Mitigation Measure N-1 and Project Mitigation Measure NOI-1, impacts related to nighttime concrete pour activities at offsite sensitive receptors would be less than significant.

Table 5.9-12: Nighttime Concrete Pour Construction Noise Levels

Construction Phase	Closest Receptor Location		Worst-Case Modeled Exterior Noise Level (dBA Leq)		Noise Threshold (dBA Leq)	Exceeded with Mitigation?
	Direction	Distance (feet)	Unmitigated	Mitigated		
Phase 1 Offsite	Northwest	130	70.3	69.5	70	No
Phase 2 Offsite	West	410	63.9	N/A	70	No
Phase 3 Offsite	West	130	71.0	69.7	70	No
Phase 2 (Phase 1 Onsite Receptors)	South	130	70.6	69.8	70	No
Phase 3 (Phase 1 Onsite Receptors)	West	130	71.9	69.8	70	No

Source: Acoustical Assessment, Appendix N

As noted above, subsequent phase construction would occur while completed phases are occupied. Future onsite receptors would be located as close as 130 feet away from subsequent phase construction. The loudest nighttime concrete pour noise levels at the closest onsite sensitive receptors would potentially be 70.6 dBA during Phase 2 and 71.9 dBA during Phase 3. Nighttime construction would be limited to brief periods when nighttime concrete pours would be necessary. As shown in Table 5.9-12 with implementation of GPU FEIR Mitigation Measure N-1 and Project Mitigation Measure NOI-1, impacts to onsite sensitive receptors related to nighttime concrete pour construction activities would be less than significant. Therefore, impacts would be less than significant with mitigation incorporated.

Construction Traffic Noise. Construction noise would be generated by large trucks moving materials to and from the Project site. The proposed Project would include demolition of existing buildings. Grading would require approximately 640,550 cubic yards of export for Phase 1; approximately 214,906 cubic yards of export for Phase 2; and approximately 484,869 cubic yards of export for Phase 3, which would result in approximately 80,069, 26,863, and 60,609 roundtrip truck hauling trips, respectively. Building construction would result in approximately 2,019 worker trips per day in Phase 1, 961 worker trips per day in Phase 2, and 1,649 worker trips per day in Phase 3 during the building construction stage of each phase.

Noise generated from construction traffic would increase short-term noise; however, these noise levels are temporary and would cease once construction is complete. The trucks associated with construction would occur during the allowable hours for construction specified in the Municipal Code (7:00 a.m. to 8:00 p.m. on weekdays and Saturdays). Trucks (including trucks hauling excavated material) would also occur during the allowable daytime hours only. Delivery trucks, haul trucks, and worker vehicles associated with the construction of the proposed Project would vary from day to day, with the highest volumes generally occurring during construction initiation. The proposed Project’s offsite construction traffic noise impact was analyzed by using the FHWA RD-77-108 model to quantify noise from the proposed Project’s construction trips with existing traffic noise levels along the potential haul routes (i.e., Bristol Street, MacArthur Boulevard, and Sunflower Avenue) and the location of sensitive receptors. Table 5.9-13 lists the predicted noise levels at nearby roadway segments near the Project site. Table 5.9-13 shows that construction traffic noise levels would not exceed the 85 dBA construction thresholds for commercial uses (soil hauling would not occur along residential streets) and roadway noise levels would not increase ambient noise levels above the perceptible range (3.0 dBA) for any of the construction phases. Therefore, a less than significant impact would occur. Additionally, the GPU FEIR Mitigation Measure N-1 requires construction traffic use City approved haul routes to the extent feasible. Thus, ensuring that construction traffic would not use residential roadways.

Table 5.9-13: Construction Traffic Noise Levels

Roadway Segment	Without Construction		With Construction		Change	Threshold	Significant Impact?
	ADT	dBA CNEL	ADT	dBA CNEL			
Phase 1							
Bristol Street, between MacArthur Boulevard and Callen’s Common (Santa Ana)	46,145	67.7	49,074	69.3	1.6	85	No
Bristol Street, between Callen’s Common and Sunflower Avenue (Santa Ana)	44,768	67.5	47,697	69.1	1.7	85	No
Bristol Street, between Sunflower Avenue and Anton Boulevard (Costa Mesa)	49,274	68.2	52,203	69.7	1.5	85	No
Bristol Street, between Anton Boulevard and I-405 NB Ramps (Costa Mesa)	56,559	69.5	59,488	70.9	1.4	85	No
Bristol Street, between I-405 NB Ramps and I-405 SB Ramps (Costa Mesa/Caltrans)	58,259	68.7	61,188	70.1	1.3	85	No

Roadway Segment	Without Construction		With Construction		Change	Threshold	Significant Impact?
	ADT	dBA CNEL	ADT	dBA CNEL			
MacArthur Boulevard, between S. Plaza Drive and Bristol Street (Santa Ana)	34,622	66.3	37,551	68.3	2.1	85	No
Sunflower Avenue, between S. Plaza Drive and Bristol Street (Santa Ana/Costa Mesa)	27,615	65.3	30,544	67.8	2.5	85	No
Phase 2							
Bristol Street, between MacArthur Boulevard and Callen's Common (Santa Ana)	51,586	68	52,954	68.9	0.7	85	No
Bristol Street, between Callen's Common and Sunflower Avenue (Santa Ana)	50,098	68	51,466	68.7	0.8	85	No
Bristol Street, between Sunflower Avenue and Anton Boulevard (Costa Mesa)	55,366	69	56,734	69.4	0.7	85	No
Bristol Street, between Anton Boulevard and I-405 NB Ramps (Costa Mesa)	66,204	70	67,572	70.8	0.6	85	No
Bristol Street, between I-405 NB Ramps and I-405 SB Ramps (Costa Mesa/Caltrans)	66,353	69	67,721	69.9	0.6	85	No
MacArthur Boulevard, between S. Plaza Drive and Bristol Street (Santa Ana)	38,095	67	39,463	67.6	1.0	85	No
Sunflower Avenue, between S. Plaza Drive and Bristol Street (Santa Ana/Costa Mesa)	31,199	66	32,567	67.0	1.1	85	No
Phase 3							
Bristol Street, between MacArthur Boulevard and Callen's Common (Santa Ana)	52,509	68.2	55,076	69.7	1.5	85	No
Bristol Street, between Callen's Common and Sunflower Avenue (Santa Ana)	50,994	68.0	53,561	69.5	1.5	85	No
Bristol Street, between Sunflower Avenue and Anton Boulevard (Costa Mesa)	56,351	68.7	58,918	70.1	1.4	85	No
Bristol Street, between Anton Boulevard and I-405 NB Ramps (Costa Mesa)	67,335	70.2	69,902	71.4	1.2	85	No
Bristol Street, between I-405 NB Ramps and I-405 SB Ramps (Costa Mesa/Caltrans)	67,518	69.4	70,085	70.6	1.2	85	No
MacArthur Boulevard, between S. Plaza Drive and Bristol Street (Santa Ana)	38,787	66.7	41,354	68.6	1.9	85	No
Sunflower Avenue, between S. Plaza Drive and Bristol Street (Santa Ana/Costa Mesa)	31,752	65.9	34,319	68.1	2.2	85	No

Source: Acoustical Assessment, Appendix N

ADT = average daily traffic; dBA = A-weighted decibels; CNEL = community noise equivalent level

Operation

Onsite Operational Noise Sources

Once the proposed Project is operational, noise levels generated at the Project site would occur from stationary equipment such as heating, ventilation, and air conditioning (HVAC) units that would be installed for the new development, use of parking facilities, trash removal activity, and activity at outdoor gathering areas, landscape maintenance activities, and parking lot activities. As described previously, there are residences in the vicinity of the Project site and the proposed Project would develop onsite residences, which would be sensitive receivers.

Mechanical Equipment. The Project site is located near residential properties to the west, northwest, and east, while properties to the southwest, south, and southeast are primarily commercial. The nearest sensitive receptors to the Project site are residences approximately 130 feet west of the proposed Project's western

boundary. Potential stationary noise sources related to long-term operation of the Project site would include mechanical equipment. Mechanical equipment (e.g., heating ventilation and air conditioning [HVAC] equipment) typically generates noise levels of approximately 52 dBA at 50 feet. At the closest sensitive receptor, approximately 130 feet away, mechanical equipment noise levels would attenuate to 43.7 dBA, which is below the City's ambient noise standards of 55 dBA for residential receptors and below the measured ambient levels ranging from 58.4 to 71.0 dBA (refer to Table 5.9-4). Operation of mechanical equipment would not increase ambient noise levels beyond the acceptable compatible land use noise levels. Therefore, the proposed Project would result in a less than significant impact related to stationary noise levels.

Open Spaces and Plazas. The proposed Project includes open spaces and plazas that could generate noise from people gathering (i.e., crowds) or from amplified music. Crowd noise from special events at the Project site could be audible at the nearest noise-sensitive receptors (i.e., residences approximately 130 feet to the west). The plazas and open spaces would be located at the proposed Project's interior of the site approximately 350 feet from sensitive receptors, and surrounded by proposed buildings that would shield sound from traveling offsite and provide at least 15 dBA of noise attenuation.

Crowd noise is dependent on various factors including vocal effort, impulsiveness, and the random orientation of the crowd members. 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. Crowd noise at the nearest noise-sensitive receptors (residences to the west) would be approximately 18 dBA, without including attenuation from surrounding buildings.

Special events at the plazas/open spaces could involve amplified live or recorded music. Amplified music is typically 88 dBA at 20 feet. Noise levels from amplified music at the nearest noise-sensitive receptors (residences approximately 350 feet west of the plazas) would be 63 dBA. With inclusion of the noise reduction from shielding of the surrounding Project buildings, the noise would attenuate to 48 dBA. As such, crowd and music would not exceed the City's 55 dBA noise standard and would be below the measured ambient levels ranging from 58.4 to 71.0 dBA (refer to Table 5.9-4). Therefore, noise impacts from crowds/amplified music would be less than significant.

Landscape Maintenance Activities. Operation of the proposed Project includes maintenance of the landscaping that would be onsite and adjacent to the site in the roadway rights-of-way. Noise generated by a gasoline-powered lawnmower is estimated to be approximately 64.4 dBA at 50 feet. Maintenance activities would operate during daytime hours for brief periods of time as allowed by the City of Santa Ana Municipal Code and would not permanently increase ambient noise levels in the area and would be consistent with activities that currently occur at the surrounding uses as well as landscape maintenance associated with the existing onsite shopping center.

The closest sensitive receptor to the Project site is residences located approximately 130 feet to the west. At this distance, a gasoline-powered lawnmower noise level would be attenuated to 56.1 dBA. The minimum ambient noise level is 58.4 dBA; therefore, a gasoline-powered lawnmower noise level of 56.1 dBA is less than the ambient noise levels and would not represent a noticeable noise level increase. Furthermore, it should be noted that Mitigation Measure AQ-5 in Section 5.1, *Air Quality*, requires electric landscape equipment. Electric landscape equipment is approximately 10 to 20 dBA quieter than gasoline-powered equipment. Therefore, the landscape maintenance noise levels discussed above are conservative and the proposed Project would result in a less than significant impact related to landscape maintenance noise levels.

Parking Noise. The proposed Project would provide onsite parking in subterranean and at-grade/above-grade parking garages. There would be up to two levels of subterranean parking in Phase 1 and one level of subterranean parking in Phase 2 and Phase 3. Additionally, there would be some on-street parking throughout the Project site.

Traffic associated with parking lots is typically not of sufficient volume to exceed community noise standards, which are based on a time-averaged scale such as the CNEL scale. The instantaneous maximum sound levels generated by a car door slamming, engine starting up, and car pass-bys range from 53 to 61 dBA. Conversations in parking areas may also be an annoyance to adjacent sensitive receptors. Sound levels of speech typically range from 33 dBA at 50 feet for normal speech to 50 dBA at 50 feet for very loud speech. Parking lot noises are instantaneous noise levels compared to noise standards in the hourly Leq metric, which are averaged over the entire duration of a time period. As a result, actual noise levels from parking lot activities would be far lower than the reference levels identified herein.

Based on the peak hour trip generation rates in Section 5.13, *Transportation*, for Phase 1, Phase 2, and Phase 3 combined, using the FTA's reference noise level of 92 dBA SEL at 50 feet from the noise source, the Project's highest peak hour vehicle trips would generate noise levels of approximately 59 dBA Leq at 50 feet from the parking lot. The nearest offsite residential property is 130 feet west of the Project site. Based strictly on distance attenuation and not including sound reduction from intervening structures, parking lot noise at the nearest receptor would be 50.7 dBA which is below the City's residential and non-residential noise standards of 55 dBA and below the measured ambient levels ranging from 58.4 to 71.0 dBA (refer to Table 5.9-4). Therefore, noise impacts from parking lot activities would be less than significant.

Offsite Traffic Operational Noise

The proposed Project would generate traffic-related noise from operation. As described previously, the proposed Project would provide vehicular access to the site from the adjacent roadways through new driveways that would include: four unsignalized right-turn only driveways and one unsignalized full-access driveway along South Plaza Drive, two unsignalized right-turn only driveways along MacArthur Boulevard, three unsignalized right-turn only driveways along Bristol Street (one of which would be truck driveway), two signalized driveways on Bristol Street, and two unsignalized right-turn only driveways and one signalized driveway along Sunflower Avenue. To identify the potential of traffic from the proposed Project to generate noise impacts, modeling of vehicular noise on area roadways was conducted by the Acoustical Assessment (Appendix N). The following discussion provides a summary of the traffic noise levels for the study area roadway segments in the without and with proposed Project conditions.

Phase 1 Traffic Noise. As shown in Table 5.9-14, roadway noise levels without the proposed Project would range from 54.2 dBA CNEL to 70.2 dBA CNEL and with the Project between 54.5 dBA CNEL and 70.3 dBA CNEL. Therefore, Project-generated traffic would result in a maximum increase of 0.4 dBA. In general, a 3-dBA increase in traffic noise is barely perceptible to people, while a 5-dBA increase is readily noticeable. Table 5.9-14 shows that none of the roadway segments would exceed both 3.0 dBA and the applicable normally acceptable land use compatibility standard for increases in traffic noise (greater than 1.5 dBA increase for ambient noise environments of 65 dBA CNEL and higher; greater than 3 dBA increase for ambient noise environments of 60 to 64 CNEL; and greater than 5 dBA increase for ambient noise environments of less than 60 dBA CNEL). Therefore, Phase 1 traffic noise would result in a less than significant impact.

Table 5.9-14: Phase 1 Operational Traffic Noise Levels

Roadway Segment	2030 Without Project		2030 With Project		Change	Normally Acceptable Standard	Significant Impact?
	ADT	dBA CNEL	ADT	dBA CNEL			
Fairview Street, between Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	62,900	69.9	62,925	69.9	0.0	65	No
Fairview Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana)	59,954	65.2	59,979	65.2	0.0	65	No
Fairview Street, between Sunflower Avenue and S. Coast Drive (Costa Mesa)	53,444	68.3	53,475	68.3	0.0	60	No
Fairview Street, between S. Coast Drive and I-405 NB Ramps (Costa Mesa)	63,912	68.7	63,952	68.7	0.0	60	No
Fairview Street, between I-405 NB Ramps and I-405 SB Ramps (Costa Mesa/Caltrans)	48,214	67.5	48,254	67.5	0.0	60	No
Fairview Street, between I-405 SB Ramps and Baker Street (Costa Mesa)	53,203	68.1	53,243	68.1	0.0	60	No
Bear Street, between Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	18,369	63.2	18,433	63.2	0.0	65	No
Bear Street, between MacArthur Blvd and Sunflower Avenue (Santa Ana/Costa Mesa)	19,428	63.7	19,453	63.8	0.0	60	No
Bear Street, between Sunflower Avenue and S. Coast Drive (Costa Mesa)	31,465	66.0	31,963	66.1	0.1	67.5	No
Bear Street, between S. Coast Drive and Paularino Avenue (Costa Mesa)	33,197	66.0	33,688	66.1	0.1	60	No
Bear Street, between Paularino Avenue and Baker Street (Costa Mesa)	41,750	66.7	41,997	66.7	0.0	60	No
S. Plaza Drive, between MacArthur Boulevard and Callen's Common (Santa Ana)	5,733	54.6	6,267	55.0	0.4	65	No
S. Plaza Drive, between Callen's Common and Sunflower Avenue (Santa Ana)	5,230	54.2	5,559	54.5	0.3	65	No
Bristol Street, between Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	49,501	67.8	49,980	67.9	0.0	65	No
Bristol Street, between MacArthur Boulevard and Callen's Common (Santa Ana)	51,586	68.1	53,000	68.3	0.1	65	No
Bristol Street, between Callen's Common and Sunflower Avenue (Santa Ana)	50,098	67.9	51,128	68.0	0.1	65	No
Bristol Street, between Sunflower Avenue and Anton Boulevard (Costa Mesa)	55,366	68.7	57,176	68.8	0.1	67.5	No
Bristol Street, between Anton Boulevard and I-405 NB Ramps (Costa Mesa)	66,204	70.2	68,014	70.3	0.1	67.5	No
Bristol Street, between I-405 NB Ramps and I-405 SB Ramps (Costa Mesa/Caltrans)	66,353	69.3	67,767	69.4	0.1	67.5	No
Bristol Street, between I-405 SB Ramps and Paularino Avenue (Costa Mesa)	43,442	67.1	43,669	67.1	0.0	67.5	No
Bristol Street, between Paularino Avenue and Baker Street (Costa Mesa)	44,946	67.5	45,173	67.6	0.0	67.5	No
Flower Street, between Dyer Road and MacArthur Boulevard (Santa Ana)	16,661	61.5	16,724	61.5	0.0	65	No
Flower Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana)	10,384	59.5	10,409	59.5	0.0	65	No
Main Street, between Dyer Road and MacArthur Boulevard (Santa Ana)	34,075	67.3	34,100	67.3	0.0	65	No

Roadway Segment	2030 Without Project		2030 With Project		Change	Normally Acceptable Standard	Significant Impact?
	ADT	dBA CNEL	ADT	dBA CNEL			
Main Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana)	26,921	66.3	26,946	66.3	0.0	65	No
Main Street, between Sunflower Avenue and Red Hill Avenue (Santa Ana/Irvine)	26,725	66.5	26,919	66.5	0.0	60	No
Seegerstrom Avenue, between Fairview Street and Bear Street (Santa Ana)	23,274	64.3	23,363	64.3	0.0	65	No
Seegerstrom Avenue, between Bear Street and Bristol Street (Santa Ana)	31,149	65.5	31,174	65.5	0.0	65	No
Seegerstrom Avenue, between Bristol Street and Flower Street (Santa Ana)	25,316	64.6	25,422	64.6	0.0	65	No
Dyer Road, between Flower Street and Main Street (Santa Ana)	31,781	65.6	31,887	65.6	0.0	65	No
MacArthur Boulevard, between Fairview Street and Bear Street (Santa Ana)	34,265	66.2	34,376	66.2	0.0	65	No
MacArthur Boulevard, between Bear Street and S. Plaza Drive (Santa Ana)	41,699	67.1	41,821	67.1	0.0	65	No
MacArthur Boulevard, between S. Plaza Drive and Bristol Street (Santa Ana)	38,095	66.7	38,140	66.7	0.0	65	No
MacArthur Boulevard, between Bristol Street and Flower Street (Santa Ana)	41,462	67.0	42,441	67.1	0.1	65	No
MacArthur Boulevard, between Flower Street and Main Street (Santa Ana)	41,852	67.1	42,768	67.2	0.1	65	No
MacArthur Boulevard, between Main Street and SR-55 SB Ramps (Santa Ana)	54,572	68.3	55,488	68.4	0.1	65	No
MacArthur Boulevard, between SR-55 SB Ramps and SR-55 NB Ramps (Santa Ana/ Irvine/ Caltrans)	55,605	68.1	56,159	68.2	0.0	60	No
Sunflower Avenue, between Fairview Street and Bear Street (Santa Ana/Costa Mesa)	18,732	63.3	18,991	63.4	0.1	60	No
Sunflower Avenue, between Bear Street and S. Plaza Drive (Santa Ana/Costa Mesa)	32,185	66.1	32,716	66.2	0.1	65	No
Sunflower Avenue, between S. Plaza Drive and Bristol Street (Santa Ana/Costa Mesa)	31,199	65.8	32,428	66.0	0.2	65	No
Sunflower Avenue, between Bristol Street and Flower Street (Santa Ana/Costa Mesa)	25,581	66.1	25,775	66.1	0.0	65	No
Bristol Street, south of Baker Street (Santa Ana)	30,901	65.8	31,128	65.8	0.0	65	No

Source: Acoustical Assessment, Appendix N

ADT = average daily traffic; dBA = A-weighted decibels; CNEL = community noise equivalent level

Phase 2 Traffic Noise. As shown in Table 5.9-15, roadway noise levels without the proposed Project would range from 54.3 dBA CNEL to 70.2 dBA CNEL and with Phase 2 of the proposed Project would range between 54.6 dBA CNEL and 70.4 dBA CNEL. Thus, Project-generated traffic would result in a maximum increase of 0.5 dBA. Table 4.9-15 shows that none of the roadway segments would exceed the City’s standards for increases in traffic noise (greater than 1.5 dBA increase for ambient noise environments of 65 dBA CNEL and higher; greater than 3 dBA increase for ambient noise environments of 60 to 64 CNEL; and greater than 5 dBA increase for ambient noise environments of less than 60 dBA CNEL). Therefore, Phase 2 traffic noise would result in a less than significant impact.

Table 5.9-15: Phase 2 Operational Traffic Noise Levels

Roadway Segment	2032 Without Project		2032 With Project		Change	Normally Acceptable Standard	Significant Impact?
	ADT	dBA CNEL	ADT	dBA CNEL			
Fairview Street, between Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	64,039	70.0	64,064	70.0	0.0	65	No
Fairview Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana)	61,035	65.3	61,060	65.3	0.0	65	No
Fairview Street, between Sunflower Avenue and S. Coast Drive (Costa Mesa)	54,406	68.4	54,470	68.4	0.0	60	No
Fairview Street, between S. Coast Drive and I-405 NB Ramps (Costa Mesa)	65,077	68.8	65,184	68.8	0.0	60	No
Fairview Street, between I-405 NB Ramps and I-405 SB Ramps (Costa Mesa/Caltrans)	49,089	67.6	49,196	67.6	0.0	60	No
Fairview Street, between I-405 SB Ramps and Baker Street (Costa Mesa)	54,171	68.2	54,278	68.2	0.0	60	No
Bear Street, between Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	18,709	63.2	18,876	63.3	0.0	65	No
Bear Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana/Costa Mesa)	19,788	63.8	19,813	63.8	0.0	60	No
Bear Street, between Sunflower Avenue and S. Coast Drive (Costa Mesa)	32,047	66.1	32,615	66.1	0.1	67.5	No
Bear Street, between S. Coast Drive and Paularino Avenue (Costa Mesa)	33,805	66.1	34,332	66.2	0.1	60	No
Bear Street, between Paularino Avenue and Baker Street (Costa Mesa)	42,516	66.8	42,799	66.8	0.0	60	No
S. Plaza Drive, between MacArthur Boulevard and Callen's Common (Santa Ana)	5,839	54.7	6,522	55.2	0.5	65	No
S. Plaza Drive, between Callen's Common and Sunflower Avenue (Santa Ana)	5,327	54.3	5,761	54.6	0.3	65	No
Bristol Street, between Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	50,387	67.9	51,395	68.0	0.1	65	No
Bristol Street, between MacArthur Boulevard and Callen's Common (Santa Ana)	52,509	68.2	55,126	68.4	0.2	65	No
Bristol Street, between Callen's Common and Sunflower Avenue (Santa Ana)	50,994	68.0	53,300	68.2	0.2	65	No
Bristol Street, between Sunflower Avenue and Anton Boulevard (Costa Mesa)	56,351	68.7	59,268	69.0	0.2	67.5	No
Bristol Street, between Anton Boulevard and I-405 NB Ramps (Costa Mesa)	67,335	70.2	70,252	70.4	0.2	67.5	No
Bristol Street, between I-405 NB Ramps and I-405 SB Ramps (Costa Mesa/Caltrans)	67,518	69.4	69,802	69.5	0.1	67.5	No
Bristol Street, between I-405 SB Ramps and Paularino Avenue (Costa Mesa)	44,227	67.2	44,616	67.2	0.0	67.5	No
Bristol Street, between Paularino Avenue and Baker Street (Costa Mesa)	45,759	67.6	46,148	67.7	0.0	67.5	No
Flower Street, between Dyer Road and MacArthur Boulevard (Santa Ana)	16,964	61.6	17,130	61.6	0.0	65	No
Flower Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana)	10,571	59.5	10,596	59.5	0.0	65	No
Main Street, between Dyer Road and MacArthur Boulevard (Santa Ana)	34,689	67.4	34,714	67.4	0.0	65	No

Roadway Segment	2032 Without Project		2032 With Project		Change	Normally Acceptable Standard	Significant Impact?
	ADT	dBA CNEL	ADT	dBA CNEL			
Main Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana)	27,400	66.4	27,425	66.4	0.0	65	No
Main Street, between Sunflower Avenue and Red Hill Avenue (Santa Ana/Irvine)	27,198	66.6	27,554	66.6	0.1	60	No
Segerstrom Avenue, between Fairview Street and Bear Street (Santa Ana)	23,699	64.3	23,994	64.4	0.1	65	No
Segerstrom Avenue, between Bear Street and Bristol Street (Santa Ana)	31,719	65.6	31,847	65.6	0.0	65	No
Segerstrom Avenue, between Bristol Street and Flower Street (Santa Ana)	25,780	64.7	25,989	64.7	0.0	65	No
Dyer Road, between Flower Street and Main Street (Santa Ana)	32,365	65.7	32,574	65.7	0.0	65	No
MacArthur Boulevard, between Fairview Street and Bear Street (Santa Ana)	34,887	66.3	35,174	66.3	0.0	65	No
MacArthur Boulevard, between Bear Street and S. Plaza Drive (Santa Ana)	42,458	67.1	42,859	67.2	0.0	65	No
MacArthur Boulevard, between S. Plaza Drive and Bristol Street (Santa Ana)	38,787	66.7	39,373	66.8	0.1	65	No
MacArthur Boulevard, between Bristol Street and Flower Street (Santa Ana)	42,219	67.1	44,259	67.3	0.2	65	No
MacArthur Boulevard, between Flower Street and Main Street (Santa Ana)	42,619	67.2	44,494	67.3	0.2	65	No
MacArthur Boulevard, between Main Street and SR-55 SB Ramps (Santa Ana)	55,550	68.4	57,425	68.5	0.1	65	No
MacArthur Boulevard, between SR-55 SB Ramps and SR-55 NB Ramps (Santa Ana/Irvine/Caltrans)	56,615	68.2	57,729	68.3	0.1	60	No
Sunflower Avenue, between Fairview Street and Bear Street (Santa Ana/Costa Mesa)	19,053	63.4	19,345	63.4	0.1	60	No
Sunflower Avenue, between Bear Street and S. Plaza Drive (Santa Ana/Costa Mesa)	32,756	66.2	33,390	66.3	0.1	65	No
Sunflower Avenue, between S. Plaza Drive and Bristol Street (Santa Ana/Costa Mesa)	31,752	65.9	32,979	66.1	0.2	65	No
Sunflower Avenue, between Bristol Street and Flower Street (Santa Ana/Costa Mesa)	26,012	66.2	26,368	66.2	0.1	65	No
Bristol Street, south of Baker Street (Santa Ana)	31,457	65.9	31,846	65.9	0.1	65	No

Source: Acoustical Assessment, Appendix N

ADT = average daily traffic; dBA = A-weighted decibels; CNEL = community noise equivalent level

Phase 3 Traffic Noise. As shown in Table 5.9-16, roadway noise levels without the proposed Project would range from 54.6 dBA CNEL to 70.4 dBA CNEL and with Phase 3 of the proposed Project would range between 55.0 dBA CNEL and 70.6 dBA CNEL. Project generated traffic would result in a maximum increase of 0.4 dBA, which is less than the 3-dBA increase that is barely perceptible to people. Table 5.9-16 also shows that none of the roadway segments would exceed the City’s standards for increases in traffic noise (greater than 1.5 dBA increase for ambient noise environments of 65 dBA CNEL and higher; greater than 3 dBA increase for ambient noise environments of 60 to 64 CNEL; and greater than 5 dBA increase for ambient noise environments of less than 60 dBA CNEL). Therefore, Phase 3 traffic noise would result in a less than significant impact.

Table 5.9-16: Phase 3 Operational Traffic Noise Levels

Roadway Segment	2036 Without Project		2036 With Project		Change	Normally Acceptable Standard	Significant Impact?
	ADT	dBA CNEL	ADT	dBA CNEL			
Fairview Street, between Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	66,318	70.2	66,343	70.2	0.0	65	No
Fairview Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana)	63,196	65.4	63,221	65.4	0.0	65	No
Fairview Street, between Sunflower Avenue and S. Coast Drive (Costa Mesa)	56,339	68.5	56,403	68.5	0.0	60	No
Fairview Street, between S. Coast Drive and I-405 NB Ramps (Costa Mesa)	67,391	69.0	67,443	69.0	0.0	60	No
Fairview Street, between I-405 NB Ramps and I-405 SB Ramps (Costa Mesa/Caltrans)	50,825	67.8	50,877	67.8	0.0	60	No
Fairview Street, between I-405 SB Ramps and Baker Street (Costa Mesa)	56,092	68.3	56,144	68.3	0.0	60	No
Bear Street, between Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	19,327	63.4	19,352	63.4	0.0	65	No
Bear Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana/Costa Mesa)	20,320	63.9	20,345	63.9	0.0	60	No
Bear Street, between Sunflower Avenue and S. Coast Drive (Costa Mesa)	33,258	66.2	33,718	66.3	0.1	67.5	No
Bear Street, between S. Coast Drive and Paularino Avenue (Costa Mesa)	35,091	66.3	35,564	66.3	0.1	60	No
Bear Street, between Paularino Avenue and Baker Street (Costa Mesa)	44,069	66.9	44,298	67.0	0.0	60	No
S. Plaza Drive, between MacArthur Boulevard and Callen's Common (Santa Ana)	6,314	55.0	6,742	55.3	0.3	65	No
S. Plaza Drive, between Callen's Common and Sunflower Avenue (Santa Ana)	5,744	54.6	6,242	55.0	0.4	65	No
Bristol Street, between Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	52,195	68.1	53,086	68.1	0.1	65	No
Bristol Street, between MacArthur Boulevard and Callen's Common (Santa Ana)	54,449	68.4	57,194	68.6	0.2	65	No
Bristol Street, between Callen's Common and Sunflower Avenue (Santa Ana)	52,880	68.2	55,336	68.4	0.2	65	No
Bristol Street, between Sunflower Avenue and Anton Boulevard (Costa Mesa)	59,000	68.9	62,422	69.2	0.2	67.5	No
Bristol Street, between Anton Boulevard and I-405 NB Ramps (Costa Mesa)	70,275	70.4	73,697	70.6	0.2	67.5	No
Bristol Street, between I-405 NB Ramps and I-405 SB Ramps (Costa Mesa/Caltrans)	70,211	69.5	72,873	69.7	0.2	67.5	No
Bristol Street, between I-405 SB Ramps and Paularino Avenue (Costa Mesa)	45,846	67.3	46,231	67.4	0.0	67.5	No
Bristol Street, between Paularino Avenue and Baker Street (Costa Mesa)	47,434	67.8	47,819	67.8	0.0	67.5	No
Flower Street, between Dyer Road and MacArthur Boulevard (Santa Ana)	17,530	61.7	17,587	61.7	0.0	65	No
Flower Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana)	10,944	59.7	10,969	59.7	0.0	65	No
Main Street, between Dyer Road and MacArthur Boulevard (Santa Ana)	35,916	67.5	35,941	67.5	0.0	65	No

Roadway Segment	2036 Without Project		2036 With Project		Change	Normally Acceptable Standard	Significant Impact?
	ADT	dBA CNEL	ADT	dBA CNEL			
Main Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana)	28,357	66.5	28,382	66.5	0.0	65	No
Main Street, between Sunflower Avenue and Red Hill Avenue (Santa Ana/Irvine)	28,191	66.7	28,543	66.8	0.1	60	No
Seegerstrom Avenue, between Fairview Street and Bear Street (Santa Ana)	24,468	64.5	24,545	64.5	0.0	65	No
Seegerstrom Avenue, between Bear Street and Bristol Street (Santa Ana)	32,880	65.8	33,008	65.8	0.0	65	No
Seegerstrom Avenue, between Bristol Street and Flower Street (Santa Ana)	26,667	64.9	26,767	64.9	0.0	65	No
Dyer Road, between Flower Street and Main Street (Santa Ana)	33,492	65.9	33,592	65.9	0.0	65	No
MacArthur Boulevard, between Fairview Street and Bear Street (Santa Ana)	36,005	66.4	36,030	66.4	0.0	65	No
MacArthur Boulevard, between Bear Street and S. Plaza Drive (Santa Ana)	43,976	67.3	44,001	67.3	0.0	65	No
MacArthur Boulevard, between S. Plaza Drive and Bristol Street (Santa Ana)	40,435	66.9	40,737	67.0	0.0	65	No
MacArthur Boulevard, between Bristol Street and Flower Street (Santa Ana)	44,014	67.3	46,188	67.5	0.2	65	No
MacArthur Boulevard, between Flower Street and Main Street (Santa Ana)	44,515	67.3	46,632	67.5	0.2	65	No
MacArthur Boulevard, between Main Street and SR-55 SB Ramps (Santa Ana)	57,870	68.5	59,987	68.7	0.2	65	No
MacArthur Boulevard, between SR-55 SB Ramps and SR-55 NB Ramps (Santa Ana/Irvine/Caltrans)	58,839	68.4	60,072	68.5	0.1	60	No
Sunflower Avenue, between Fairview Street and Bear Street (Santa Ana/ Costa Mesa)	19,706	63.5	19,998	63.6	0.1	60	No
Sunflower Avenue, between Bear Street and S. Plaza Drive (Santa Ana/ Costa Mesa)	34,478	66.4	35,003	66.5	0.1	65	No
Sunflower Avenue, between S. Plaza Drive and Bristol Street (Santa Ana/ Costa Mesa)	33,676	66.2	35,255	66.4	0.2	65	No
Sunflower Avenue, between Bristol Street and Flower Street (Santa Ana/ Costa Mesa)	26,923	66.3	27,275	66.4	0.1	65	No
Bristol Street, south of Baker Street (Santa Ana)	32,615	66.0	33,000	66.1	0.1	65	No

Source: Acoustical Assessment, Appendix N

ADT = average daily traffic; dBA = A-weighted decibels; CNEL = community noise equivalent level

Traffic Noise at Project Buildout. As shown in Table 5.9-17, roadway noise levels without the proposed Project would range between 54.6 dBA CNEL and 70.6 dBA CNEL at 100 feet from the centerline without the proposed Project and between 55.0 dBA CNEL and 70.8 dBA CNEL with the proposed Project. Thus, the proposed Project would result in a maximum increase of 0.4 dBA, which is less than the 3 dBA increase that is barely perceptible to people and would not exceed the City’s standards for increases in traffic noise. Therefore, buildout of the proposed Project in year 2045 would result in less than significant traffic noise impacts.

Table 5.9-17: Operational Traffic Noise Levels With Project Buildout

Roadway Segment	2045 Without Project		2045 With Project		Change	Normally Acceptable Standard	Significant Impact?
	ADT	dBA CNEL	ADT	dBA CNEL			
Fairview Street, between Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	69,634	70.4	69,659	70.4	0.0	65	No
Fairview Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana)	66,356	65.6	66,381	65.6	0.0	65	No
Fairview Street, between Sunflower Avenue and S. Coast Drive (Costa Mesa)	59,156	68.7	59,220	68.7	0.0	60	No
Fairview Street, between S. Coast Drive and I-405 NB Ramps (Costa Mesa)	70,761	69.2	70,813	69.2	0.0	60	No
Fairview Street, between I-405 NB Ramps and I-405 SB Ramps (Costa Mesa/Caltrans)	53,366	68.0	53,418	68.0	0.0	60	No
Fairview Street, between I-405 SB Ramps and Baker Street (Costa Mesa)	58,897	68.5	58,949	68.5	0.0	60	No
Bear Street, between Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	20,293	63.6	20,318	63.6	0.0	65	No
Bear Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana/Costa Mesa)	21,336	64.2	21,361	64.2	0.0	60	No
Bear Street, between Sunflower Avenue and S. Coast Drive (Costa Mesa)	34,921	66.4	35,381	66.5	0.1	67.5	No
Bear Street, between S. Coast Drive and Paularino Avenue (Costa Mesa)	36,846	66.5	37,319	66.6	0.1	60	No
Bear Street, between Paularino Avenue and Baker Street (Costa Mesa)	46,272	67.1	46,501	67.2	0.0	60	No
S. Plaza Drive, between MacArthur Boulevard and Callen's Common (Santa Ana)	6,630	55.2	7,058	55.5	0.3	65	No
S. Plaza Drive, between Callen's Common and Sunflower Avenue (Santa Ana)	5,780	54.6	6,278	55.0	0.4	65	No
Bristol Street, between Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	54,805	68.3	55,696	68.3	0.1	65	No
Bristol Street, between MacArthur Boulevard and Callen's Common (Santa Ana)	57,171	68.6	59,916	68.8	0.2	65	No
Bristol Street, between Callen's Common and Sunflower Avenue (Santa Ana)	55,524	68.4	57,980	68.6	0.2	65	No
Bristol Street, between Sunflower Avenue and Anton Boulevard (Costa Mesa)	61,950	69.2	65,372	69.4	0.2	67.5	No
Bristol Street, between Anton Boulevard and I-405 NB Ramps (Costa Mesa)	73,789	70.6	77,211	70.8	0.2	67.5	No
Bristol Street, between I-405 NB Ramps and I-405 SB Ramps (Costa Mesa/Caltrans)	73,722	69.8	76,384	69.9	0.2	67.5	No
Bristol Street, between I-405 SB Ramps and Paularino Avenue (Costa Mesa)	48,138	67.6	48,523	67.6	0.0	67.5	No
Bristol Street, between Paularino Avenue and Baker Street (Costa Mesa)	49,806	68.0	50,191	68.0	0.0	67.5	No
Flower Street, between Dyer Road and MacArthur Boulevard (Santa Ana)	18,407	61.9	18,464	62.0	0.0	65	No
Flower Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana)	11,491	59.9	11,516	59.9	0.0	65	No
Main Street, between Dyer Road and MacArthur Boulevard (Santa Ana)	37,712	67.7	37,737	67.7	0.0	65	No

Roadway Segment	2045 Without Project		2045 With Project		Change	Normally Acceptable Standard	Significant Impact?
	ADT	dBA CNEL	ADT	dBA CNEL			
Main Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana)	29,775	66.7	29,800	66.8	0.0	65	No
Main Street, between Sunflower Avenue and Red Hill Avenue (Santa Ana/Irvine)	29,601	66.9	29,953	67.0	0.1	60	No
Seegerstrom Avenue, between Fairview Street and Bear Street (Santa Ana)	24,629	64.5	24,706	64.5	0.0	65	No
Seegerstrom Avenue, between Bear Street and Bristol Street (Santa Ana)	34,524	66.0	34,652	66.0	0.0	65	No
Seegerstrom Avenue, between Bristol Street and Flower Street (Santa Ana)	27,540	65.0	27,640	65.0	0.0	65	No
Dyer Road, between Flower Street and Main Street (Santa Ana)	34,666	66.0	34,766	66.0	0.0	65	No
MacArthur Boulevard, between Fairview Street and Bear Street (Santa Ana)	37,805	66.6	37,830	66.6	0.0	65	No
MacArthur Boulevard, between Bear Street and S. Plaza Drive (Santa Ana)	46,175	67.5	46,200	67.5	0.0	65	No
MacArthur Boulevard, between S. Plaza Drive and Bristol Street (Santa Ana)	42,457	67.1	42,759	67.2	0.0	65	No
MacArthur Boulevard, between Bristol Street and Flower Street (Santa Ana)	46,215	67.5	48,389	67.7	0.2	65	No
MacArthur Boulevard, between Flower Street and Main Street (Santa Ana)	46,741	67.6	48,858	67.8	0.2	65	No
MacArthur Boulevard, between Main Street and SR-55 SB Ramps (Santa Ana)	60,764	68.8	62,881	68.9	0.1	65	No
MacArthur Boulevard, between SR-55 SB Ramps and SR-55 NB Ramps (Santa Ana/Irvine/Caltrans)	71,625	69.2	72,858	69.3	0.1	60	No
Sunflower Avenue, between Fairview Street and Bear Street (Santa Ana/Costa Mesa)	20,691	63.7	20,983	63.8	0.1	60	No
Sunflower Avenue, between Bear Street and S. Plaza Drive (Santa Ana/Costa Mesa)	36,202	66.6	36,727	66.7	0.1	65	No
Sunflower Avenue, between S. Plaza Drive and Bristol Street (Santa Ana/Costa Mesa)	35,360	66.4	36,939	66.6	0.2	65	No
Sunflower Avenue, between Bristol Street and Flower Street (Santa Ana/Costa Mesa)	28,269	66.5	28,621	66.6	0.1	65	No
Bristol Street, south of Baker Street (Santa Ana)	34,246	66.2	34,631	66.3	0.0	65	No

Source: Acoustical Assessment, Appendix N

ADT = average daily traffic; dBA = A-weighted decibels; CNEL = community noise equivalent level

The traffic noise impacts that would be generated by the proposed Project would be less than those identified by the GPU FEIR, which were determined to be significant and unavoidable. Therefore, traffic noise impacts related to the proposed Project would not exceed those previously identified.

Onsite Traffic Operational Noise

The California Supreme Court in a December 2015 opinion (*California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal. 4th 369 [No. S 213478]) confirmed that CEQA, with several specific exceptions, is concerned with the impacts of a project on the environment, not the effects the existing environment may have on a project. Therefore, this section is not required under CEQA and is included to describe compliance with City and State Building Code noise standards.

Future residents at the Project site would be exposed to mobile traffic noise along Bristol Street, MacArthur Boulevard, Sunflower Avenue, and Plaza Drive. Table 5.9-17 shows that noise levels along these roadways would be up to 68.8 dBA (along Bristol Street from MacArthur Boulevard to Callen's Common) at 100 feet from the roadway centerline. At 70 feet, traffic noise would be approximately 71 dBA. However, this does not account for intervening structures and changes in altitude, as residences would be above commercial and retail uses. Therefore, the potential for the proposed Project to exceed the City's 65 dBA exterior and 45 dBA interior General Plan noise standards (based on an outdoor to indoor attenuation rate of 25 dB) cannot be excluded, and noise-reduction features, acoustical designs for the proposed residential buildings, and enforcement of the California Uniform Building Code would be required. However, Condition of Approval NOI-1 is included to require a detailed acoustical study demonstrating that all residential units would meet the City's General Plan 65 dBA exterior and 45 dBA interior noise standards by incorporating applicable noise reduction features. Compliance with Condition of Approval NOI-1 would ensure that the proposed Project meets the applicable City and state standards.

IMPACT NOI-2: THE PROJECT WOULD NOT GENERATE EXCESSIVE GROUND-BORNE VIBRATION OR GROUNDBORNE NOISE LEVELS.

Construction

Less than Significant Impact. Construction activities for the proposed Project would include demolition, excavation, and grading activities, which have the potential to generate low levels of groundborne vibration. People living and working in close proximity to the Project site could be exposed to the generation of excessive groundborne vibration or groundborne noise levels related to construction activities. The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels. Site ground vibrations from construction activities very rarely reach the levels that can damage structures, but they can be perceived in the audible range and be felt in buildings very close to a construction site.

Demolition, excavation, and grading activities are required for the proposed Project and can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. For example, for a building that is constructed with reinforced concrete with no plaster, the FTA guidelines show that a vibration level of up to 0.20 in/sec is considered safe and would not result in any construction vibration damage. In addition, Transportation and Construction Vibration Guidance Manual prepared by California Department of Transportation (Caltrans), has identified vibration at the level of 0.04 in/sec PPV is barely perceptible and is considered the annoyance threshold. Groundborne vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

Based on the reference vibration levels provided by the FTA, a large bulldozer represents the peak source of vibration with a reference velocity of 0.089 in/sec PPV at 25 feet. As indicated in Table 5.9-18, based on FTA data, vibration velocities from typical heavy construction equipment operations that would be used during Project construction range from 0.003 to 0.089 in/sec PPV at 25 feet from the source of activity; and would range from 0.0011 to 0.0315 in/sec PPV at 50 feet from the source of activity. All of the onsite and offsite receptors are farther than 25 feet from construction areas; and therefore, actual vibrations at sensitive receptors would be less.

Table 5.9-18: Construction Equipment Vibration Levels

Equipment	Peak Particle Velocity at 25 Feet (in/sec)	Peak Particle Velocity at 50 Feet (in/sec)	Peak Particle Velocity at 100 Feet (in/sec)
Large Bulldozer	0.089	0.0315	0.011
Caisson Drilling	0.089	0.0315	0.011
Loaded Trucks	0.076	0.0269	0.010
Jackhammer	0.035	0.0124	0.004
Small Bulldozer/Tractors	0.003	0.0011	0.0001

Source: Acoustical Assessment, Appendix N

These vibration levels would not be sustained during the entire construction period but would occur only during the times that heavy construction equipment is operating in the vicinity of the sensitive receivers. This level of vibration would be below the FTA building damage threshold of 0.2 in/sec PPV and the Caltrans vibration standard of 0.04 in/sec PPV for human annoyance at all receiver locations. Therefore, vibration impacts from Project construction would be less than significant.

The construction vibration impacts that would be generated by the proposed Project would be less than those identified by the GPU FEIR, which were determined to be significant and unavoidable. Therefore, construction vibration impacts related to the proposed Project would not exceed those previously identified.

Operation

Less than Significant Impact. Operation of the proposed commercial and multi-family uses would include heavy trucks for residents moving in and out of the rental units, product deliveries to retail and restaurant uses, and garbage trucks for solid waste disposal. Truck vibration levels are dependent on vehicle characteristics, load, speed, and pavement conditions. However, typical vibration levels for heavy truck activity at normal traffic speeds would be approximately 0.006 in/sec PPV, based on the FTA Transit Noise Impact and Vibration Assessment. Truck movements on site would be travelling at very low speed, so it is expected that truck vibration at nearby sensitive receivers would be less than the vibration threshold of 0.08 in/sec PPV for fragile historic buildings and 0.04 in/sec PPV for human annoyance, and therefore, would be less than significant.

The operational vibration impacts that would be generated by the proposed Project would be less than those identified by the GPU FEIR, which were determined to be significant and unavoidable. Therefore, operational vibration impacts related to the proposed Project would not exceed those previously identified.

IMPACT NOI-3: THE PROJECT WOULD NOT EXPOSE PEOPLE RESIDING AND WORKING IN THE PROJECT AREA TO EXCESSIVE NOISE LEVELS RELATED TO A PUBLIC AIRPORT.

Less than Significant Impact. As described previously, SNA is located approximately 1.4 miles southeast of the Project site and under the primary aircraft approach corridor. The AELUP prepared by the Orange County Airport Land Use Commission (ALUC) identifies noise compatibility policies 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 AELUP 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.

The basic function of the AELUP is to promote compatibility between the airport and the land uses that surround it. The AELUP establishes aircraft noise exposure exterior noise level compatibility thresholds for new developments by land use category. According to the exterior noise thresholds outlined in the AELUP, multi-family residential development is considered normally consistent with exterior noise levels of less than

60 dBA CNEL, *conditionally consistent* with exterior noise levels between 60 and 65 dBA CNEL and *normally inconsistent* with exterior noise level above 65 dBA CNEL. For commercial retail land use, exterior noise levels are considered *normally consistent* with exterior noise levels of less than 65 dBA CNEL and *conditionally consistent* with exterior noise level above 65 dBA CNEL.

As shown on Figures 5.6-2 and 5.6-3, the Project site is located outside of both the airport's planned and actual (2019) 60 CNEL contours of SNA. Therefore, according to the AELUP, the Project residential, open space, and commercial retail land uses are *normally consistent* with SNA aircraft noise exposure exterior noise level compatibility thresholds. Also, the airport related noise at the Project site does not exceed the City's municipal code permissible noise levels. Additionally, the County's General Aviation Noise Ordinance 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. These restrictions substantially limit the aircraft noise during the noise sensitive nighttime hours for residential use. Therefore, noise impacts related to SNA would be less than significant.

5.9.7 CUMULATIVE IMPACTS

Cumulative noise assessment 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.

Development of the proposed Project in combination with the related projects would result in an increase in construction-related and traffic-related noise. However, each of the related projects would be subject to the operational noise standards established in Section 18-313 of the City's Municipal Code, which establishes the allowable exterior noise standards for various types of land uses in the City. In addition, Section 18-314 of the City's Municipal Code allows for construction activities to be exempt from the noise standards set forth in Sections 18-312 and 18-313 of the City's Municipal Code as long as these activities do not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or anytime on Sunday or a federal holiday. In addition, the City of Tustin has a similar municipal code requirement related to construction noise.

Construction noise is localized in nature and decreases substantially with distance. Consequently, in order to achieve a substantial cumulative increase in construction noise levels, more than one source emitting high levels of construction noise would need to be in close proximity to the proposed Project. The nearest development projects to the Project site include the South Coast Village Mixed-Use project that is adjacent to the southwest of the Project site and the Chick-Fil-A expansion project that is across Bristol Street to the northeast of the Project site. The Chick-Fil-A expansion project is currently in plan check and completion of construction of that project would likely be completed by the time construction of Phase 1 of the proposed Project commences. The South Coast Village Mixed-Use project is still in the early stages of entitlement. Therefore, there is potential that construction of the South Coast Village Mixed-Use project overlaps with construction of Phase 1 of the proposed Project. However, due to the size of the Project site, varying locations onsite where construction would occur, and the limited offsite construction noise levels that would be generated from the proposed Project, it would not combine to become cumulatively considerable, and cumulative noise impacts associated with construction activities would be less than significant.

Cumulative construction could also result in the exposure of people to or the generation of excessive groundborne vibration. As described above, the proposed Project would result in limited vibration at 25 and 50 feet from construction activities. Due the rapid attenuation of groundborne vibration, the size of the Project site, and the location of the nearest project and limited potential for overlapping construction, the proposed Project would not result in vibration that could combine with other development projects. Thus, the

proposed Project would not contribute to cumulative vibration impacts and impacts would be less than significant.

As described previously, stationary noise sources that would be generated by the proposed Project would result in noise levels that would be below the existing City noise standards. Because the Project site is surrounded by roadways and proposed buildings and parking structures are setback from roadways, noise from the site would attenuate to diminish, and would not combine with other stationary sources of adjacent uses. Thus, stationary noise sources from the proposed Project would result in impacts that are less than cumulatively significant.

Cumulative mobile source noise impacts would occur primarily as a result of increased traffic on local roadways due to the proposed Project and related projects within the study area. Therefore, cumulative traffic-generated noise impacts have been assessed based on the contribution of the proposed Project in the Project buildout condition. Cumulative increases in traffic noise levels were estimated by comparing the existing and Project buildout without and with Project scenarios. As shown in Table 5.9-19, the volume of traffic generated by the proposed Project on MacArthur Boulevard, between SR-55 SB Ramps and SR-55 NB Ramps, would exceed 1.5 dBA for an ambient noise environment of 65 dBA and higher when comparing Year 2045 With proposed Project conditions to existing conditions. However, the proposed Project's incremental contribution would be 0.1 dBA (i.e., far below a 3.0 barely perceptible increase and below the City's 1.5 dBA increase). Therefore, although related cumulative projects and growth would increase traffic noise levels along this segment, the proposed Project's incremental effects would be less than cumulatively significant.

Table 5.9-19: Year 2045 Cumulative Operational Traffic Noise Levels

Roadway Segment	Existing dBA CNEL	Year 2045 Without Project dBA CNEL	Year 2045 With Project dBA CNEL	Difference In dBA Between Existing and Year 2045 With Project	Difference In dBA Between Year 2045 Without Project and Year 2045 With Project	Land Use Threshold dBA CNEL	Cumulatively Significant Impact?
Fairview Street, between Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	69.5	70.4	70.4	0.9	0.0	65	No
Fairview Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana)	64.7	65.6	65.6	0.9	0.0	65	No
Fairview Street, between Sunflower Avenue and S. Coast Drive (Costa Mesa)	67.8	68.7	68.7	0.9	0.0	60	No
Fairview Street, between S. Coast Drive and I-405 NB Ramps (Costa Mesa)	68.3	69.2	69.2	0.8	0.0	60	No
Fairview Street, between I-405 NB Ramps and I-405 SB Ramps (Costa Mesa/Caltrans)	67.1	68.0	68.0	0.9	0.0	60	No
Fairview Street, between I-405 SB Ramps and Baker Street (Costa Mesa)	67.7	68.5	68.5	0.9	0.0	60	No
Bear Street, between Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	62.8	63.6	63.6	0.8	0.0	65	No

Roadway Segment	Existing dBA CNEL	Year 2045 Without Project dBA CNEL	Year 2045 With Project dBA CNEL	Difference In dBA Between Existing and Year 2045 With Project	Difference In dBA Between Year 2045 Without Project and Year 2045 With Project	Land Use Threshold dBA CNEL	Cumulatively Significant Impact?
Bear Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana/Costa Mesa)	63.4	64.2	64.2	0.7	0.0	60	No
Bear Street, between Sunflower Avenue and S. Coast Drive (Costa Mesa)	65.7	66.4	66.5	0.8	0.1	67.5	No
Bear Street, between S. Coast Drive and Paularino Avenue (Costa Mesa)	65.7	66.5	66.6	0.9	0.1	60	No
Bear Street, between Paularino Avenue and Baker Street (Costa Mesa)	66.3	67.1	67.2	0.8	0.0	60	No
S. Plaza Drive, between MacArthur Boulevard and Callen's Common (Santa Ana)	54.3	55.2	55.5	1.2	0.3	65	No
S. Plaza Drive, between Callen's Common and Sunflower Avenue (Santa Ana)	53.9	54.6	55.0	1.1	0.4	65	No
Bristol Street, between Segerstrom Avenue and MacArthur Boulevard (Santa Ana)	67.4	68.3	68.3	1.0	0.0	65	No
Bristol Street, between MacArthur Boulevard and Callen's Common (Santa Ana)	67.7	68.6	68.8	1.1	0.2	65	No
Bristol Street, between Callen's Common and Sunflower Avenue (Santa Ana)	67.5	68.4	68.6	1.1	0.2	65	No
Bristol Street, between Sunflower Avenue and Anton Boulevard (Costa Mesa)	68.2	69.2	69.4	1.2	0.2	67.5	No
Bristol Street, between Anton Boulevard and I-405 NB Ramps (Costa Mesa)	69.5	70.6	70.8	1.4	0.2	67.5	No
Bristol Street, between I-405 NB Ramps and I-405 SB Ramps (Costa Mesa/Caltrans)	68.7	69.8	69.9	1.2	0.2	67.5	No
Bristol Street, between I-405 SB Ramps and Paularino Avenue (Costa Mesa)	66.7	67.6	67.6	0.9	0.0	67.5	No
Bristol Street, between Paularino Avenue and Baker Street (Costa Mesa)	67.1	68.0	68.0	0.9	0.0	67.5	No

Roadway Segment	Existing dBA CNEL	Year 2045 Without Project dBA CNEL	Year 2045 With Project dBA CNEL	Difference In dBA Between Existing and Year 2045 With Project	Difference In dBA Between Year 2045 Without Project and Year 2045 With Project	Land Use Threshold dBA CNEL	Cumulatively Significant Impact?
Flower Street, between Dyer Road and MacArthur Boulevard (Santa Ana)	61.1	61.9	62.0	0.9	0.0	65	No
Flower Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana)	59.0	59.9	59.9	0.9	0.0	65	No
Main Street, between Dyer Road and MacArthur Boulevard (Santa Ana)	66.9	67.7	67.7	0.9	0.0	65	No
Main Street, between MacArthur Boulevard and Sunflower Avenue (Santa Ana)	65.8	66.7	66.8	1.0	0.0	65	No
Main Street, between Sunflower Avenue and Red Hill Avenue (Santa Ana/Irvine)	65.9	66.9	67.0	1.0	0.1	60	No
Segerstrom Avenue, between Fairview Street and Bear Street (Santa Ana)	63.9	64.5	64.5	0.7	0.0	65	No
Segerstrom Avenue, between Bear Street and Bristol Street (Santa Ana)	65.1	66.0	66.0	0.8	0.0	65	No
Segerstrom Avenue, between Bristol Street and Flower Street (Santa Ana)	64.2	65.0	65.0	0.8	0.0	65	No
Dyer Road, between Flower Street and Main Street (Santa Ana)	65.3	66.0	66.0	0.8	0.0	65	No
MacArthur Boulevard, between Fairview Street and Bear Street (Santa Ana)	65.8	66.6	66.6	0.9	0.0	65	No
MacArthur Boulevard, between Bear Street and S. Plaza Drive (Santa Ana)	66.7	67.5	67.5	0.9	0.0	65	No
MacArthur Boulevard, between S. Plaza Drive and Bristol Street (Santa Ana)	66.3	67.1	67.2	0.9	0.0	65	No
MacArthur Boulevard, between Bristol Street and Flower Street (Santa Ana)	66.6	67.5	67.7	1.1	0.2	65	No
MacArthur Boulevard, between Flower Street and Main Street (Santa Ana)	66.7	67.6	67.8	1.1	0.2	65	No
MacArthur Boulevard, between Main Street and SR-55 SB Ramps (Santa Ana)	67.8	68.8	68.9	1.1	0.1	65	No
MacArthur Boulevard, between SR-55 SB Ramps	67.7	69.2	69.3	1.6	0.1	60	No

Roadway Segment	Existing dBA CNEL	Year 2045 Without Project dBA CNEL	Year 2045 With Project dBA CNEL	Difference In dBA Between Existing and Year 2045 With Project	Difference In dBA Between Year 2045 Without Project and Year 2045 With Project	Land Use Threshold dBA CNEL	Cumulatively Significant Impact?
and SR-55 NB Ramps (Santa Ana/Irvine/Caltrans)							
Sunflower Avenue, between Fairview Street and Bear Street (Santa Ana/Costa Mesa)	62.6	63.7	63.8	1.2	0.1	60	No
Sunflower Avenue, between Bear Street and S. Plaza Drive (Santa Ana/ Costa Mesa)	65.6	66.6	66.7	1.1	0.1	65	No
Sunflower Avenue, between S. Plaza Drive and Bristol Street (Santa Ana/ Costa Mesa)	65.3	66.4	66.6	1.3	0.2	65	No
Sunflower Avenue, between Bristol Street and Flower Street (Santa Ana/ Costa Mesa)	65.4	66.5	66.6	1.2	0.1	65	No
Bristol Street, south of Baker Street (Santa Ana)	65.3	66.2	66.3	1.0	0.0	65	No

Source: Acoustical Assessment, Appendix N

The GPU FEIR identified significant and unavoidable impacts for traffic noise; but did not analyze this segment of MacArthur Boulevard. However, GPU FEIR Figure 5.12-5 and Figure 5.12-10 show that this segment of MacArthur Boulevard (between SR-55 SB Ramps and SR-55 NB Ramps) is also within the 70+ dBA contour of SR-55). Therefore, the year 2045 noise level of 69.3 dBA would be lower than the SR-55 traffic noise in this area. Overall, cumulative operational noise impacts from related projects, in conjunction with noise from the proposed Project would not be cumulatively considerable and cumulative traffic noise impacts would be less than significant.

5.9.8 EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS, OR POLICIES

- 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.
- Section 18.312 of the Santa Ana Municipal Code provides standards for stationary noise sources.
- Section 18-314 (Special Provisions) of the City’s Municipal Code does not allow construction activities to occur between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or any time on Sunday or a federal holiday.

5.9.9 CONDITION OF APPROVAL

Proposed Specific Plan Project Condition of Approval

COA N-1: Onsite Traffic Noise. Prior to issuance of building permits for Phase 1, Phase 2, and Phase 3, a detailed acoustical study based on architectural plans shall be prepared by a qualified acoustical consultant to demonstrate compliance with General Plan Noise Element Standards. The acoustical study shall be submitted to the City's Planning and Building Agency to demonstrate that all residential units would meet the City's 65 dBA exterior noise standard and 45 dBA interior noise standard to the satisfaction of the Planning and Building Agency Executive Director. This complies with the applicable sections of the California Building Code (Title 24 of the California Code of Regulations). The necessary noise reductions may be achieved by implementing noise control measures at the receiver locations. The required noise attenuation measures shall be incorporated into the applicable building plans and specifications.

5.9.10 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impact NOI-1 would be potentially significant.

Upon implementation of regulatory requirements, Impacts NOI-2 and NOI-3 would be less than significant.

5.9.11 MITIGATION MEASURES

GPU FEIR Mitigation Measures

GPU FEIR MM N-1: Construction contractors shall implement the following measures for construction activities conducted in the City of Santa Ana. Construction plans submitted to the City shall identify these measures on demolition, grading, and construction plans submitted to the City: The City of Santa Ana Planning and Building Agency shall verify that grading, demolition, and/or construction plans submitted to the City include these notations prior to issuance of demolition, grading and/or building permits.

- Construction activity is limited to the hours: Between 7:00 a.m. to 8:00 p.m. Monday through Saturday, as prescribed in Municipal Code Section 18-314(e). Construction is prohibited on Sundays.
- During the entire active construction period, equipment and trucks used for project construction shall use the best-available noise control techniques (e.g., improved mufflers, equipment re-design, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds), wherever feasible.
- Impact tools (e.g., jack hammers and hoe rams) shall be hydraulically or electrically powered wherever possible. Where the use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used along with external noise jackets on the tools.
- Stationary equipment such as generators and air compressors shall be located as far as feasible from nearby noise-sensitive uses.
- Stockpiling shall be located as far as feasible from nearby noise-sensitive receptors.
- Construction traffic shall be limited to approved haul routes established by the City Public Works Agency. Exceptions to approved routes must be granted by the Public Works Agency before any modification to approved haul routes.
- At least 10 days prior to the start of construction activities, a sign shall be posted at the entrance(s) to the job site, clearly visible to the public, that includes permitted construction days and hours, as well as the telephone numbers of the City's and contractor's authorized representatives that are assigned to respond in the event of a noise or vibration complaint. If the authorized contractor's representative

receives a complaint, he/she shall investigate, take appropriate corrective action, and report the action to the City.

- Signs shall be posted at the job site entrance(s), within the onsite construction zones, and along queueing lanes (if any) to reinforce the prohibition of unnecessary engine idling. All other equipment shall be turned off if not in use for more than 5 minutes.
- During the entire active construction period and to the extent feasible, the use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. The construction manager shall use smart back-up alarms, which automatically adjust the alarm level based on the background noise level, or switch off back-up alarms and replace with human spotters in compliance with all safety requirements and laws.
- Erect temporary noise barriers (at least as high as the exhaust of equipment and breaking line-of-sight between noise sources and sensitive receptors), as necessary and feasible, to maintain construction noise levels at or below the performance standard of 80 dBA Leq. Barriers shall be constructed with a solid material that has a density of at least 4 pounds per square foot with no gaps from the ground to the top of the barrier.

Proposed Project Applicability: GPU FEIR Mitigation Measure N-1 is applicable to the proposed Project and will be included in the Project MMRP.

GPU FEIR MM N-2: 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.

Proposed Project Applicability: GPU FEIR Mitigation Measure N-2 is not applicable to the proposed Project because it does not include pile driving.

GPU FEIR MM N-3: New residential projects (or other noise sensitive uses) located within 200 feet of existing railroad lines shall be required to conduct a groundborne vibration and noise evaluation consistent with Federal Transit Administration (FTA) approved methodologies.

Proposed Project Applicability: GPU FEIR Mitigation Measure N-3 is not applicable to the proposed Project because the Project site is not located within 200 feet of a railroad line.

GPU FEIR MM N-4: During the project-level California Environmental Quality Act (CEQA) process for industrial developments under the General Plan Update or other projects that could generate substantial vibration levels near sensitive uses, a noise and vibration analysis shall be conducted to assess and mitigate potential noise and vibration impacts related to the operations of that individual development. This noise and vibration analysis shall be conducted by a qualified and experienced acoustical consultant or engineer and shall follow the latest CEQA guidelines, practices, and precedents.

Proposed Project Applicability: GPU FEIR Mitigation Measure N-4 has been completed for the proposed Project through preparation of the Acoustical Assessment that is included in Appendix N.

Proposed Specific Plan Project Mitigation Measures

Mitigation Measure NOI-1: Prior to the issuance of construction/grading permits, the Project Applicant shall obtain a permit from the City's Building and Safety Division 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 requires the following:

Stationary equipment such as generators and air compressors shall adhere to the following:

- Stationary equipment (e.g., generators, air compressors, etc.) shall be located 300 feet or more away from residences.
- Stationary equipment shall be surrounded with noise barriers to achieve a minimum 10 dBA reduction. Alternatively, a temporary noise barrier may be used along the property line.

Mobile equipment such as concrete mixer trucks, pump trucks shall adhere to the following:

- The nighttime noise control plan shall prohibit mobile equipment and trucks from operating within the following distances to offsite sensitive receptors:
 - **Phase 1:** Trucks and equipment shall be 140 feet or more away from the Versailles residences along Plaza Drive.
 - **Phase 2:** No minimum distance required (Phase 2 is 410 feet from sensitive receptors and would not exceed thresholds).
 - **Phase 3:** Trucks and equipment shall be 150 feet or more away from the Versailles residences along Plaza Drive.
- The nighttime noise control plan shall prohibit mobile equipment and trucks from operating within the following distances to onsite sensitive receptors:
 - **Phase 1:** No minimum distance is required because no onsite receptors would be constructed prior to Phase 1.
 - **Phase 2:** Trucks and equipment shall be 150 feet or more away from Phase 1 onsite residences.
 - **Phase 3:** Trucks and equipment shall be 170 feet or more away from Phase 1 and Phase 2 onsite residences.

5.9.12 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The GPU FEIR and Project specific mitigation measures and the existing regulatory programs described previously would ensure that potential impacts associated with noise and vibration would be less than significant. Therefore, no significant unavoidable adverse impacts related to noise or vibration would occur.

REFERENCES

City of Santa Ana General Plan Update. April 2022. Accessed: <https://www.santa-ana.org/general-plan-documents/>

City of Santa Ana General Plan Update Final Recirculated Program Environmental Impact Report. October 2021. Accessed: <https://www.santa-ana.org/general-plan-environmental-documents/>

City of Santa Ana Municipal Code. Accessed: https://library.municode.com/ca/santa_ana

Acoustical Assessment. June 2023. Prepared by Kimley-Horn. (Appendix N)

5.10 Population and Housing

5.10.1 INTRODUCTION

This section examines the existing population, housing, and employment conditions in the City of Santa Ana, and assesses the proposed Project's potential impacts related to unplanned direct and indirect growth. Demographic data presented in this section is from the U.S. Census, California Department of Finance (DOF), the Southern California Association of Governments (SCAG) 2020 growth forecasts, the City of Santa Ana General Plan Update (GPU) and GPU FEIR, adopted in 2022.

Although evaluation of population, housing, and employment typically involves economic and social, rather than physical environmental issues, population, housing, and employment growth are often precursors to physical environmental impacts. According to Section 15382 of the CEQA Guidelines, “[a]n economic or social change by itself shall not be considered a significant impact on the environment.” Socioeconomic characteristics should be considered in an EIR only to the extent that they create adverse impacts on the physical environment.

5.10.2 REGULATORY SETTING

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 are required to ensure that sufficient sites are planned and zoned for housing, such that area would be available to accommodate the projected housing needs, and to implement proactive programs that facilitate and encourage the production of housing commensurate with its housing needs.

SCAG Regional Transportation Plan/Sustainable Communities Strategy

On September 3, 2020, the Southern California Association of Governments (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 RTP/SCS, Southern California will grow from 9 million people, 6 million households, and 8 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 greenhouse gas (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 macro and small-scale 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 (source: California DOF); the SCAG 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.

City of Santa Ana General Plan Housing Element

The City of Santa Ana’s Housing Element 2021-2029, 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 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.

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 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 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.

POLICY HE-4. 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-5.6 Seek to preserve housing opportunities for all residents through actions aimed at limited displacement, preserving affordable housing, and expanding housing opportunities.

City of Santa Ana Inclusionary Housing Requirements

The Affordable Housing Opportunity and Creation Ordinance (AHOCO) (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.

5.10.3 ENVIRONMENTAL SETTING

Project Site

The Project site consists of 41.13 acres of land that is currently developed with 16 buildings, including 3 multi-story buildings and 13 one-story buildings with single and multiple tenants. The site has various large areas of surface parking and drive-aisles that surround the existing buildings on the site.

Project Vicinity

The Project site is located within the General Plan South Bristol Street Focus Area, which is a fully developed 199.9-acre urban area that contains both regional and local uses. The site is across Sunflower Avenue to the north of South Coast Plaza, which is a regional shopping mall in the City of Costa Mesa. The site is surrounded by roadways followed by multi-family residential, retail, and restaurant uses. In addition, the site is approximately 0.5-mile north of I-405 at Bristol Street, which provides direct regional vehicular access to the Project vicinity.

Population

The California DOF estimates that the City of Santa Ana 2022 population was 308,459 persons, representing 9.75 percent of Orange County’s total population. The Center for Demographic Research estimates that the City’s population will increase to 360,077 in 2045, which is a 16.7 percent increase. In comparison, the County of Orange is projected to have an 11.8 percent increase in population between 2022 and 2045, as shown on Table 5.10-1.

Table 5.10-1: City and County Existing and Projected Population, 2022 and 2045

Year	City of Santa Ana	County of Orange
2022	308,459	3,162,245
2045	360,077	3,534,620
Percent Increase	16.7%	11.8%

Source: California Department of Finance and Center for Demographic Research 2022 Orange County Progress Report Demographics.

Housing

The California DOF estimates that the City of Santa Ana contained 81,082 housing units in 2022. As shown in Table 5.10-2, of the housing units within the City of Santa Ana, 44.2 percent are detached single-family housing units and 34.2 percent are multi-family units within buildings containing more than five units.

The housing types in the City of Santa Ana compared to those in the entire County are provided in Table 5.10-2, 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. Conversely, the City of Costa Mesa has lower percentages of single-family housing, similar rates of multi-family units within buildings containing more than five units, and higher rates of attached single-family and multi-family with two to four attached units. In addition, the California DOF details that the City had an average household size of 3.89 persons per household. In comparison, the County had an average household size of 2.87 persons per household.

Table 5.10-2: City of Santa Ana and County Housing Estimates by Type in 2022

Unit Type	City of Santa Ana Housing Units		County of Orange Housing Units	
	Number	Percent	Number	Percent
Single-family detached	35,862	44.2%	568,053	49.7%
Single-family attached	5,807	7.2%	137,384	12.0%
Multi-family (2-4 units)	7,666	9.4%	96,677	8.5%
Multi-family (5+ units)	27,694	34.2%	306,523	26.8%
Mobile homes	4,053	5.0%	33,743	3.0%
Total	81,082	100%	1,142,380	100%

Source: CA Depart of Finance, E-5 Population and Housing Estimates, 2022.

The Census Factfinder 2021 information for the City identifies that 45.7 percent of the residences within the City are owner occupied units and 54.3 percent are renter-occupied units. The owner occupation rate for the County is higher at 57 percent. The California DOF population and housing estimates for 2022 detail that the City of Santa Ana has a vacancy rate of 3.5 percent. In comparison, the vacancy rate Countywide is higher at 5.1 percent. The higher rental occupied unit rate combined with the low vacancy rate in the County, indicates that additional rental units are needed to provide diverse housing types and meet the housing needs of the City of Santa Ana.

As described by the City of Santa Ana Housing Element (p. A-15), 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 optimal and offer a variety of choices for residents. Thus, the Santa Ana vacancy rate of 3.5 percent indicates that additional housing could be needed.

In March 2020, SCAG adopted its 6th Cycle RHNA allocation plan, which covers the planning period of October 2021 through October 2029 and allocated 3,095 housing units to the City of Santa Ana. The income breakdown of the required housing units is provided in Table 5.10-3.

Table 5.10-3: City of Santa Ana RHNA Housing Estimates by Income Level

Income Level Category	Number of Housing Units	Percent of Total
Very Low (< 50% of AMI)	586	18.9%
Low (50% to 80% of AMI)	362	11.7%
Moderate (80% to 120% of AMI)	523	16.9%
Above Moderate (> 120% of AMI)	1,624	52.5%
Total	3,095	100%

Source: SCAG Regional Housing Needs Assessment.

Employment

The City of Santa Ana is estimated to contain 159,980 employment opportunities as of 2019. The SCAG regional growth projections anticipate the number of jobs in the City of Santa Ana to increase by 7.8 percent to 172,400 jobs in the year 2045. In comparison, the County is projected to see a 25.5 percent increase in the number of jobs by 2045, as shown in Table 5.10-4.

Table 5.10-4: City and County Existing and Projected Employment, 2019 and 2045

Year	City of Santa Ana	County of Orange
2019	159,980	1,578,300
2045	172,400	1,980,000
Percent Increase	7.8%	25.5%

Sources: 2045 estimates from Connect SoCal; 2019 estimates from GPU FEIR Table 5.13-5, 2022 Orange County Progress Report Demographics.

The SCAG 2019 Local Profile for Santa Ana identifies that 20.8 percent of Santa Ana residents work and live in the City, while 79.2 percent commute to other places. Of the commuters residing in Santa Ana, the largest percentage commute to the City of Irvine (12.2 percent), Anaheim (6.8 percent), Orange (5.5 percent), and Costa Mesa (5.3 percent).

Jobs – Housing Ratio

The jobs-housing ratio 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. SCAG defines the jobs-housing balance as follows:

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, by definition, balanced.... Job-rich subregions have ratios greater than the regional average; housing-rich subregions have ratios lower than the regional average. Ideally, 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.

The City's GPU FEIR 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.

The City of Santa Ana is jobs rich with approximately 78,792 housing units and 158,980 jobs in 2019, which results in 2.0 jobs per housing unit.

5.10.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

- POP-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); or
- POP-2 Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

5.10.5 METHODOLOGY

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, CEQA Guidelines Appendix G indicates 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.

The methodology used to determine population, housing, and employment impacts began with data collection regarding existing population and housing trends, which was obtained from the U.S. Census, state of California DOF, Center for Demographic Research, SCAG, and the City's GPU and GPU Final EIR. The anticipated population that would be generated by the proposed Project was determined by utilizing the General Plan Buildout Methodology, included as Appendix B of the Draft GPU EIR document.

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 General Plan Focus Area that the Project site is located within, pursuant to Table 1, *Existing Conditions, Potential Growth, and Buildout Conditions in Santa Ana, 2020 to 2045*, of Appendix B of the Draft GPU EIR document. If projected growth with the proposed Project would exceed the General Plan buildout as identified in the GPU Final EIR, and could create a significant change to the environment, the resulting growth would be considered "substantial," and a significant impact would result.

5.10.6 ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR determined that implementation of the GPU would directly induce population and employment growth but would improve the jobs-housing balance in the City, and the purpose of GPU is to accommodate increased growth in a responsible manner. The GPU accommodates future growth in the City by providing for infrastructure and public services to accommodate the projected growth. Proposed policies under the GPU and the AHOCO also ensure that the City provides adequate housing choices for various income levels. However, the GPU FEIR determined that the increase in population and housing units at buildout exceeds Orange County Council of Government’s (OC COG) projections by approximately 20 and 38 percent, respectively, and impacts were considered significant and unavoidable.

Appendix B of the GPU FEIR document identifies the existing and projected GPU buildout of each of the Focus Areas. As shown on Table 5.10-5, the 199.9-acre South Bristol Street Focus Area currently has 220 housing units and buildout pursuant to the GPU is anticipated to result in 5,495 housing units.

Table 5.10-5: GPU Projected Buildout of Housing Units in the South Bristol Street Focus Area

Focus Area	Existing Number of Housing Units	Potential Growth of Housing Units	Buildout Number of Housing Units
South Bristol Street	220	5,272	5,492

Source: GPU FEIR Appendix B, Table 1

The GPU FEIR detailed that the South Bristol Street Focus Area currently contains 8,390 residents; and consistent with the increase in housing units, that buildout of the Focus Area as identified by the GPU would result in a population of 19,176 residents, which is a 129 percent increase, as shown in Table 5.10-6.

Table 5.10-6: GPU Existing and Projected Buildout Population of the South Bristol Street Focus Area

Focus Area	Existing Population	Buildout Population	Percentage Growth (%)
South Bristol Street	8,390	19,176	129%

Source: GPU FEIR Table 5.13-8

In addition, the GPU FEIR detailed that the South Bristol Street Focus Area currently contains 1,577,511 SF of non-residential building space that provides for approximately 3,337 jobs. As shown on Table 5.10-7, the buildout pursuant to the GPU is anticipated to result in 5,082,641 SF of non-residential building space that provides for approximately 11,192 jobs, which is an increase of 7,855 jobs.

Table 5.10-7: GPU Existing and Projected Buildout of Non-Residential Area and Employment in the South Bristol Street Focus Area

Focus Area	Existing		Growth		Buildout	
	Bldg SF	Jobs	Bldg SF	Jobs	Bldg SF	Jobs
South Bristol Street	1,577,511	3,337	3,505,130	7,855	5,082,641	11,192

Source: GPU FEIR Appendix B, Table 1

Proposed Specific Plan Project

IMPACT POP-1: THE PROJECT WOULD NOT INDUCE SUBSTANTIAL UNPLANNED POPULATION GROWTH IN AN AREA, EITHER DIRECTLY (FOR EXAMPLE, BY PROPOSING NEW HOMES AND BUSINESSES) OR INDIRECTLY (FOR EXAMPLE THROUGH THE EXTENSION OF ROADS OR OTHER INFRASTRUCTURE).

Less than Significant Impact.

Housing and Population Growth

The proposed Project would redevelop the Project site to provide 3,750 multi-family apartments and 200 senior/continuum of care units. These residential units would not exceed the 5,272 additional housing units that were planned for the South Bristol Street Focus Area by the GPU. Therefore, the proposed residences would not induce unplanned growth in the area, and housing growth in the Focus Area would not exceed the growth that was identified in the GPU Final EIR.

Based on the multi-family unit factor of 2.41 persons per multi-family household within structures that have 50 or more residential units that was used to generate population estimates for the GPU buildout conditions, the proposed multi-family apartments would result in a population of approximately 9,238 persons at buildout and full occupancy.¹ In addition, it is assumed that each proposed senior/continuum of care unit would have one resident per unit.

As shown on Table 5.10-8, the proposed Project would result in a total onsite population of 9,238 persons at buildout and full occupancy. As shown previously in Table 5.10-6, the buildout population of the South Bristol Street Focus Area was identified as 19,176 persons. Therefore, the Project buildout of 9,238 residents would be 48 percent of the GPU FEIR buildout for the South Bristol Street Focus Area, and population growth from the proposed Project would not exceed the growth identified in the GPU Final EIR. Therefore, the proposed Project would not induce substantial unplanned direct growth in the area, and impacts related to housing and population growth would be less than significant.

Table 5.10-8: Anticipated Residents at Buildout and Full Occupancy

Unit Type	Number of Units	Persons per Unit	Total Residents
Multi-family Residential	3,750	2.41	9,038
Senior/Continuum of Care Units	200	1	200
Total	3,950	-	9,238

Source: GPU FEIR Appendix B, Table 4

Also, Figure 3-4, *South Bristol Street Focus Area and General Plan Land Use*, in Chapter 3.0, Project Description, identifies that the 41.13-acre Project site is designated as DC-5 that allows a FAR of 5.0 and 125 dwelling units per acre (du/ac), and is located within the south-central portion of the 199.9-acre Focus Area. The portions of the Focus Area to the east and west of the site are also planned for DC-5 uses. Areas to the north of the site are planned for DC-2 uses that allow a FAR of 2.0 and 90 du/ac, UN-40 that allows a FAR of 1.5 and 40 du/ac, and UN-30 that allows a FAR of 1.5 and 30 du/ac. The remaining GPU buildout of the South Bristol Street Focus Area that includes 1,522 residential units would be accommodated by the 158.77-acre remaining South Bristol Street Focus Area that is not a part of the Project site. Overall, housing and

¹ While the Draft EIR’s analysis relies on the person per household generation rate of 2.41 from the GPU FEIR, due to the potential unit type which would be developed within the Related Bristol Specific Plan, the applicant has commissioned a study that suggests buildout could result in a lower generation rate of 1.74 persons per household (Concord, 2023). Based on 1.74 PPH, buildout of the Project would result in 6,725 residents inclusive of senior units.

population growth that would occur from the proposed Project is consistent with that identified in the GPU FEIR for the South Bristol Street Focus Area.

Employment Growth

The proposed site redevelopment would also include 350,000 SF of commercial space and 250 hotel rooms, which would not exceed the increase of 3,505,130 SF of non-residential space that was planned for the South Bristol Street Focus Area by the GPU. In addition, employees would be needed associated with the proposed mix of uses, including the senior/continuum of care units. The GPU determined buildout using generation factors of 1.0 employee per 500 SF of commercial space and 0.9 employee per hotel room. From the 2001 SCAG Employment Density Report, Special Care Facilities in Orange County have a generation factor of approximately 32.24 employees per acre, or 1 employee per 1,351 SF. Based on these generation factors, the proposed Project would result in a total of 1,092 employees at buildout and full occupancy, as shown in Table 5.10-9. These employees would consist of approximately 14 percent of the GPU projected increase in employment from buildout of the South Bristol Street Focus Area. Therefore, employment growth from buildout of the proposed Project would not exceed the growth identified in the GPU Final EIR, and impacts related to employment growth would be less than significant.

Table 5.10-9: Anticipated Employees at Buildout and Full Occupancy

Non-Residential Type	Number of Units	Unit per Employee	Total Employees
Commercial	350,000 SF	500 SF	700
Hotel	250 Rooms	0.9 Room	225
Special Care Facilities	225,000 sf/ 200 units	1,351 SF	167
Total Employees			1,092

Source: GPU FEIR Appendix B, Table 3

Jobs-Housing Balance

Effects of the proposed Project on jobs-housing balance are evaluated by adding project-generated jobs and housing units to forecasts of employment and housing. As described previously, the City of Santa Ana is jobs rich, with an existing jobs-housing ratio of 2.0. The proposed Project would reduce (improve) the jobs-housing ratio slightly by adding 1,092 jobs and 3,750 residential units (a ratio of 0.29 jobs per non-senior residential unit). The proposed Project would provide a regional beneficial effect of providing multi-family housing on the Project site in a jobs-rich area, where employees can easily travel to nearby employment opportunities.

In addition, because the area is jobs-rich, the addition of residential units in the area would not require additional jobs that could result in growth. Conversely, the new residents would fill the need for employees that are anticipated by SCAG projections. Thus, the additional residential units would not indirectly result in the need for additional employment opportunities, which could result in growth. Therefore, this indirect impact related to growth would be less than significant.

Furthermore, the proposed Project is located in Transit Priority Area and is in close proximity to existing transportation infrastructure that provides mobility for residents to employment opportunities within the region. The Project site is 0.5 mile from I-405, which is easily accessible via an interchange at Bristol Street. As detailed in Section 5.13, *Transportation*, the Orange County Transportation Agency operates seven bus routes with bus stops adjacent to the Project site. Several of these are high quality bus stops located along the site frontages and provide peak hour commute services.

In addition, the Project site is bound by sidewalks on Bristol Street, MacArthur Boulevard, South Plaza Drive, and Sunflower Avenue; and the proposed Project would install new onsite and offsite pedestrian and bicycle

facilities, which would connect to other existing pedestrian and bicycle facilities. The residents and employees of the proposed Project 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 the related effects (such as traffic, air quality, greenhouse gas emissions, and noise impacts). Thus, the improved jobs-housing ratio would be an indirect physical benefit of the proposed Project.

Infrastructure

Roadways. The Project site is adjacent to existing roadways that would not be extended or upsized to serve the proposed Project. Although the proposed Project includes roadway improvements, they are related to installing ingress/egress to the proposed uses on the Project site and providing a multi-modal circulation system by enhancing pedestrian and bicycle facilities. As detailed in Chapter 3.0, *Project Description*, these roadway improvements on each street include the following:

- **Bristol Street:** landscaped setback with sidewalks; Class IV bike lane; bus stop improvements; new curb cuts for ingress/egress to/from Bristol; potential median modifications and/or signalization of driveway between Callen's Commons and Sunflower Avenue.
- **MacArthur Boulevard:** Class IV bike lane; bus stop improvements; new intersection with onsite local roadway (Bristol Paseo); curb cuts, and landscaped setback areas with street trees.
- **South Plaza Drive:** curb cuts for ingress/egress; signalization at Callen's Common; landscaped setback areas with street trees.
- **Sunflower Avenue:** median modification and/or signalization at Bristol Paseo; westbound right-turn lanes at Bristol Paseo; Class IV bike lane; bus stop improvements; landscape and sidewalk improvements.
- **Callen's Common:** landscaped sidewalks; Greenlink pedestrian crossing; reduction of travel lanes to a two-lane street to allow for on-street parking and drop-off and loading areas; pedestrian pathways on both sides of roadway.

These roadway improvements would provide for efficient and multi-modal circulation to, from, and within the Project site and would not provide additional roadways or roadway capacity that could indirectly induce substantial unplanned growth in the area.

Water and Sewer. As described in Section 5.15, *Utilities and Service Systems*, the proposed Project would install a new onsite water infrastructure system that would connect to water pipelines adjacent to the site. The onsite improvements include construction of a new 12-inch water line in Bristol Paseo and replacement of the existing 12-inch water line in Callen's Common with a new 12-inch main and connection of the new onsite infrastructure to the replacement line. The proposed Project also includes offsite infrastructure improvements that would replace a portion of the existing 12-inch water main in South Plaza Drive from MacArthur Boulevard to Sunflower Avenue with a 12-inch water main. The 12-inch water mains in Sunflower Avenue from South Plaza Drive to Bristol Street and Bristol Street from MacArthur Boulevard to Sunflower Avenue would be replaced "in-kind" with new 12-inch water mains. The proposed Project would install a new onsite sewer system that would connect to the existing 78-inch Orange County Sanitation District (OCSD) sewer main in Sunflower Avenue.

These improvements would allow for development of the proposed Project consistent with the GPU assumptions for the Project site. These improvements would not indirectly induce substantial unplanned growth in the area.

Drainage. As detailed in Section 5.15, *Utilities and Service Systems*, the proposed Project would install a storm drain system within the onsite roadways to convey the stormwater to proposed vegetated biotreatment

systems on the site and then to the existing or upgraded City storm drain systems in MacArthur Boulevard, South Plaza Drive, Sunflower Avenue, and Bristol Street. The proposed Project would upgrade the existing 54-inch reinforced concrete pipe (RCP) in Sunflower Avenue to a 72-inch RCP for 2,230 linear feet and the existing 42-inch RCP in South Plaza Drive to a 60-inch RCP for 320 linear feet; however, these upgrades would replace existing storm drain lines and are to accommodate existing stormwater volumes. As such, the proposed Project would connect to existing or upgraded storm drain infrastructure and would not result in the expansion of storm drainage facilities in a manner which could accommodate substantial unplanned growth in the area.

Natural Gas and Electricity. The Project site is currently being served by the existing natural gas and electric infrastructure that is adjacent to the site. The proposed Project would install new gas and electric infrastructure onsite that would connect to the existing natural gas and electric facilities that are in the adjacent roadway easements and are provided by Southern California Gas and Southern California Electric, respectively. The gas and electric infrastructure do not require extensions or capacity enhancements that could indirectly induce substantial unplanned growth in the area.

Furthermore, no infrastructure would be extended or expanded to serve areas beyond the Project site, and indirect impacts related to the extension of infrastructure would not occur from implementation of the proposed Project.

Overall, the proposed Project would not result in an increase in inducement of population growth beyond that identified by the GPU FEIR that would have the potential to create a significant physical change to the environment. As a result, impacts from buildout of the proposed Project would be less than significant and less than those identified in the GPU FEIR, which were determined to be significant and unavoidable.

IMPACT POP-2: THE PROJECT WOULD NOT DISPLACE SUBSTANTIAL NUMBERS OF EXISTING PEOPLE OR HOUSING, NECESSITATING THE CONSTRUCTION OF REPLACEMENT HOUSING ELSEWHERE.

No Impact. As described previously, the Project site is currently developed with commercial retail buildings and there is no existing housing on the Project site. The proposed Project would implement new housing on the site, where none currently exists. Therefore, the proposed Project would not result in displacement of substantial numbers of people, such that construction of replacement housing elsewhere would be necessary. As a result, impacts would not occur and would be consistent with those identified in the GPU FEIR.

5.10.7 CUMULATIVE IMPACTS

The geographic area in which cumulative impacts to population and housing would occur is the City of Santa Ana, and summary of projections utilized in this analysis of cumulative population and housing impacts is from the summary of the GPU Land Use Element and GPU Final EIR, which evaluates conditions contributing to the cumulative population and housing growth effects.

As detailed previously, implementation of the proposed Project would result in 3,750 additional multi-family residential units and 200 senior living/continuum of care units, as well as 350,000 SF of retail uses and a 250-room hotel. The proposed residential units are within the GPU planned increase in residential units within the South Bristol Street Focus Area. The estimated 9,238 residents at buildout and complete occupancy (a conservative estimate as vacancy in the City is 3.5 percent) would be 48 percent of the GPU FEIR estimated buildout for the South Bristol Street Focus Area, and the 1,092 jobs would consist of 148 percent of the anticipated growth in jobs within the South Bristol Street Focus Area. Hence, the increase in population and housing that would occur from the proposed Project would not exceed those anticipated from buildout of the GPU, as identified in with the GPU Final EIR. Development of the proposed Project in combination with other development projects in the vicinity would result in a cumulative increase in population. However, the

proposed Project's portion of the cumulative increase is within those anticipated by the GPU Final EIR. Thus, the proposed Project would not generate any new or increased cumulative impacts related to population and housing.

As described above, the addition of housing within the Project area would have a favorable effect on the jobs-housing balance, which could reduce environmental effects of long commute trips, such as air quality and greenhouse gas emissions (further detailed throughout other sections of this Supplemental EIR).

Also, as detailed previously, infrastructure improvements to accommodate the proposed development on the Project site are based on the GPU development assumptions for the site. As a result, no extension of infrastructure would occur that could induce cumulative growth beyond that assumed with buildout of the GPU. Furthermore, infrastructure upgrades and extensions that may be included in related projects would not affect or be related to the proposed Project. Therefore, proposed Project impacts are less than cumulatively considerable, and therefore, less than significant.

5.10.8 EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS, OR POLICIES

There are no applicable regulations related to population and housing.

5.10.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impacts POP-1 and POP-2 would be less than significant.

5.10.10 MITIGATION MEASURES

GPU FEIR Mitigation Measures

No mitigation measures related to population and housing were included in the GPU FEIR.

Proposed Specific Plan Project Mitigation Measures

No mitigation measures related to population and housing are required for the proposed Project.

5.10.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts POP-1 and POP-2 would be less than significant, and no mitigation measures are required.

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5.11 Public Services

5.11.1 INTRODUCTION

This section describes the existing fire protection, police protection, schools, and library facilities that serve the Project site and vicinity and evaluates the potential for implementation of the proposed Project to result in an impact. This section of the Supplemental EIR addresses whether there are physical environmental effects of new or expanded facilities that are necessary to maintain acceptable service levels related to fire, police, schools, and library services. Park services are addressed in Section 5.12, *Parks and Recreation*. Public utilities and service systems, including water, wastewater, drainage, and solid waste, are addressed in Section 5.15, *Utilities and Service Systems*. Information within this section is based on the following:

- *City of Santa Ana General Plan Update*
- *City of Santa Ana General Plan Update FEIR*
- *City of Santa Ana Municipal Code*
- *Data provided by each service provider*

Because CEQA focuses on physical environmental effects, this section analyzes whether any physical changes resulting from an increase in service demands from development pursuant to the proposed Project could result in significant adverse environmental effects. Thus, an increase in staffing associated with public services, or an increase in calls for services, would not, by itself, be considered a physical change in the environment. However, physical changes in the environment resulting from the construction of new facilities or an expansion of existing facilities to accommodate the increased staff or equipment needs resulting from the proposed Project could constitute a significant impact.

5.11.2 FIRE PROTECTION SERVICES

5.11.2.1 FIRE PROTECTION REGULATORY SETTING

California Fire Code

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code, which include regulations concerning building standards (as also set forth in Title 24, Part 9 of the California Code of Regulations, the California Building Code), fire protection and notification systems, fire protection devices (such as extinguishers and smoke alarms), building evacuation and access standards, and fire suppression training.

California Health and Safety Code

Additional state fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code, which includes regulations for building standards, fire protection and notification systems, fire protection devices such as extinguishers, smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

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 (Cal/OSHA) 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.

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, water supply, and building access, as required by the California Fire Code. 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 the OCFA. In addition, the guideline requires that plans be reviewed by the OCFA.

City of Santa Ana General Plan Update

The City's General Plan Update (GPU) includes policies related to fire services in the Public Services Element that include the following:

- 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.
- 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.
- 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.
- POLICY PS-2.7** 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-2.10** 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 Code. The Santa Ana Municipal Code includes the California Fire Code as published by the California Building Standards Commission and the International Code Council (with some City-specific amendments). The California Fire Code is Title 24, Part 9 of the California Code of Regulations, and regulates new structures, alterations, additions, changes in use or changes in structures. The Code includes specific information regarding safety provisions, emergency planning, fire-resistant construction, fire protection systems, means of egress and hazardous materials.

Fire Facilities Fee. Chapter 8-46 of the Santa Ana Municipal Code requires a fire facilities fee be paid prior to the issuance of building permit for construction of buildings exceeding 2 stories in height (excluding parking structures). Buildings over 2 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 2 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. All fire facility fee revenues shall be deposited in an account separate and apart from other city revenues and may be expended from such solely to pay for the cost of the facilities identified in Chapter 8-46 of the Municipal Code.

5.11.2.2 FIRE PROTECTION SERVICE ENVIRONMENTAL SETTING

Fire protection and emergency medical services in the City of Santa Ana are provided by the OCFA through a contract for services. The OCFA provides fire suppression, emergency medical, rescue, fire prevention, hazardous materials coordination, and wildland management services. OCFA serves 23 cities in Orange County and all unincorporated areas. Within the City of Santa Ana, OCFA provides services from 10 city-owned fire stations.

There are six city-owned fire stations located within approximately 4 miles of the Project site. Station 76, which is located 0.5 mile from the Project site, is the first responding station and Station 77, which is 2.2 miles from the site is the second responding station to the Project site. Both Stations 76 and 77 have Advance Life Support capabilities. In addition, at least two members of each station’s daily staff are paramedics. The location, equipment, and staffing of the Santa Ana fire stations within approximately 4 miles of the Project site are provided in Table 5.11-1.

Table 5.11-1: Santa Ana Fire Stations Near the Project Site

Fire Station	Location	Distance from Site	Equipment	Staffing
Station 76	950 West MacArthur Boulevard	0.5 mile	1 Paramedic Truck	1 Fire Captain, 1 Engineer, 2 Firefighters/Paramedics
Station 77	2317 South Greenville Street	2.2 miles	1 Paramedic Truck	1 Fire Captain, 1 Engineer, 2 Firefighters/Paramedics
Station 74	1427 South Broadway	2.9 miles	1 Paramedic Engine	3 Fire Captains/Paramedics 3 Fire Apparatus Engineers 3 Firefighters/Paramedics 3 Firefighters
Station 79	1320 East Warner	3.0 miles	1 Paramedic Engine	3 Fire Captains 3 Fire Apparatus Engineers 6 Firefighters/Paramedics
Station 73	419 South Franklin Street	3.4 miles	1 Paramedic Engine	3 Fire Captains/Paramedics 3 Fire Apparatus Engineers 3 Firefighters/Paramedics 3 Firefighters
Station 75	120 West Walnut	4.1 mile	1 Paramedic Engine 1 Paramedic Truck	6 Fire Captains/Paramedics 6 Fire Apparatus Engineers 6 Firefighters/Paramedics 6 Firefighters

Sources: GPU FEIR, Section 5.14, Public Services, and OCFA 2023

To manage fire services throughout the City, an OCFA division chief serves 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. Also, an administrative captain, administrative assistant, nurse educator, and a fire community relations and education specialist (bilingual) are assigned to serve the City of Santa Ana.

As provided by the OCFA 2022 Statistical Annual Report, there were 40,224 calls for service from the 10 fire stations in the City in 2022. Of the calls for service, 56.8 percent (22,835) were for emergency medical calls, 1.8 percent (734) were for fire incidents, and 17.5 percent (7,035) were for other incidents, which includes: cancelled service calls, ruptures, hazardous conditions, false alarms, and miscellaneous calls.

The OCFA 2022 standard for response is 8:30 minutes at the 90th percentile. Table 5.11-2 provides a summary of service and response metrics for the first and second responding stations to the Project site

(Station 76 and Station 77) in 2022. As shown, in 2022 the 90th percentile response time for Station 76 was 8:11 minutes and 8:53 for Station 77.

Table 5.11-2: Stations 76 and 77 Calls for Service and Response Data – 2022

Fire Station	Total Calls for Services	Emergency Medical Calls	Fire Calls	Other Calls	Total Incidents	90 th Percentile Response (min:second)
Station 76	2,604	1,728	39	837	2,604	8:11
Station 77	3,449	2,724	78	647	3,427	8:53

Source: OCFA 2023

5.11.2.3 FIRE PROTECTION SERVICE THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to 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.

5.11.2.4 FIRE PROTECTION SERVICE METHODOLOGY

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.

5.11.2.5 FIRE PROTECTION SERVICE ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR determined that buildout of the GPU would consist of development of up to 36,261 housing units and 5,849,220 SF of non-residential development; resulting in a total of 360,077 residents and 170,416 jobs that would generate an increase in demand for fire services. This includes 8,733,780 SF of mixed uses, inclusive of residential uses, within the Project site. The GPU FEIR determined that future development under the GPU would comply with the California Fire and Building Codes, California Health and Safety Code, City ordinances, and applicable national standards to reduce needs related to fire services. The GPU FEIR determined that additional staff, equipment, and facilities would come from the City’s general fund to serve the growing population. Therefore, the GPU FEIR determined that impacts related to fire protection and emergency services and facilities would be less than significant.

Proposed Specific Plan Project

IMPACT PS-1: THE PROJECT WOULD NOT RESULT IN SUBSTANTIAL ADVERSE PHYSICAL IMPACTS ASSOCIATED WITH THE PROVISION OF NEW OR PHYSICALLY ALTERED FIRE SERVICE 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.

Less than Significant Impact. The proposed Project would remove the existing 16 commercial buildings and develop 3,750 multi-family residences, 200 senior/continuum of care units, 250 hotel rooms, and 350,000 SF of new commercial uses. Construction and operation of the proposed Project would increase demands for fire protection and emergency medical services over the existing site condition. As described in Section 5.10, *Population and Housing*, based on the multi-family unit factor of 2.41 persons per multi-family household within structures that have 50 or more residential units that was used to generate population estimates for the GPU buildout conditions, the proposed Project would result in 9,238 residents and 1,092 employees at full occupancy. The increased residential and employee population is expected to create the typical range of service calls to OCFA, largely related to medical emergencies. Medical emergencies accounted for 56.8 percent of service calls of OCFA service calls in Santa Ana during 2022, while fire calls consisted of 1.8 percent of service calls.

As described above in the Environmental Setting Section, there are six existing fire stations within approximately 4 miles of the Project site. The first responding station (Station 76) is 0.5 mile from the Project site, and the second responding station (Station 77) is located 2.2 miles from the Project site. The existing 90th percentile on-scene response time for emergency calls from Station 76 that is 0.51 mile from the Project site is 8:11 minutes, which is within the response time standard 90th percentile of 8:30 minutes. The existing 90th percentile response time for emergency calls from the second responding unit (Station 77) that is 2.2 miles from the Project site is 8:53 minutes, which slightly exceeds the response time standard (OCFA, 2023).

The calls for service from the additional population at the Project site could result in an increase in response times, and result in Station 76 exceeding the existing standards for service or result in Station 77 further exceeding the existing standards for service, if the calls coincide with other calls for service. However, fire protection equipment and staffing can be augmented by the City as needed (with assistance from revenue provided by the proposed Project and the fire facilities fee required per Chapter 8-46 of the Municipal Code) to expand fire protection and emergency medical staffing and equipment provided from existing stations and better accommodate simultaneous service calls.

Because the Project site is within 4 miles of six existing fire stations and the Project site is within a developed area that is currently served by a first responding station that is 0.5-mile from the Project site and a second responding station that is 2.2 miles from the Project site, the Project would not result in the requirement to construct a new fire station. Chapter 8-46 of the Santa Ana Municipal Code requires a fire facilities fee be paid prior to the issuance of building permit for construction of buildings exceeding two stories in height, such as the buildings included in the proposed Project. The purpose of the fire facilities fee is to improve fire stations in the City and provide revenue for equipment needed to fight fires in buildings over two stories in height. The proposed Project would be required to pay a fire facilities fee to fund the improvement of existing fire facilities and provision of any needed equipment.

Additionally, the proposed Project would remove the existing buildings, which were constructed pursuant to fire code standards of the early 1970s and 1980s and develop new building structures pursuant to the most recent California building and fire codes, which would improve the fire safety of the Project site compared to the existing buildings. California's building/fire codes are published in their entirety every three years and were most recently updated in 2022. As all projects within the City, the proposed Project would be

required per City permitting to comply with existing regulations, including the Santa Ana Fire Code and the OCFA Fire Prevention Guideline B-09, Fire Master Plans for Commercial and Residential Development, which include regulations for water supply, built in fire protection systems, adequate emergency access, fire hydrant availability, and fire-safe building materials, such as the following:

- Structures would have automatic fire sprinkler systems per National Fire Protection Association Standard for the Installation of Sprinkler Systems (NFPA 13) as required by the California Building and Fire Codes.
- A fire alarm system would be installed per the requirements of the California Fire Code.
- Access to and around structures would meet OCFA and California Fire Code requirements.
- A water supply system to supply fire hydrants and fire hydrant spacing would meet OCFA and California Fire Code requirements.
- Turning radius and access in and around the Project site and buildings would be designed to accommodate large fire department vehicles and their weight per OCFA Fire Prevention Guideline B-09.
- All electrically operated gates shall install emergency opening devices as approved by the OCFA.
- High rise provisions would be required for buildings over 75 feet high and the parking structure.
- The amenity decks are an Assembly Occupancy and proper egress provisions are required.
- Occupancy permits are required prior to occupancy of any part of the proposed Project.

Overall, with the six existing fire stations within approximately 4 miles of the Project site, and the first and second responding stations 0.5 mile and 2.2 miles from the proposed Project, the area has adequate nearby fire facilities to serve the proposed Project in addition to the existing service needs of the area; and construction of a new or expanded fire station would not be required as a result of the proposed Project. Thus, the proposed Project would not result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered fire protection facilities. Also, existing fire protection facilities, equipment, and staffing could be augmented as needed, as disclosed within the GPU FEIR (with assistance from revenue provided by the proposed Project and the fire facilities fee required prior to the issuance of building permits per Chapter 8-46 of the Municipal Code) to expand fire protection and emergency medical staffing and equipment provided from existing stations as the stations have capacity for additional staffing. Therefore, impacts related to fire protection services would be less than significant and consistent with those identified in the GPU FEIR, which determined that impacts related to fire protection services would be less than significant.

5.11.2.6 FIRE PROTECTION SERVICE CUMULATIVE IMPACTS

The geographic context for cumulative fire protection and emergency services is the OCFA service area within the City of Santa Ana because the City owns and maintains the 10 existing fire stations within the City. Staffing of the fire stations is done through contracting with OCFA. Thus, augmenting the existing fire station facilities, equipment, and staffing is under the jurisdiction of the City. Like the proposed Project, buildout of the City pursuant to the GPU would involve redevelopment of existing lands for more intensive uses; and the projects would be reviewed by City and OCFA staff prior to permit approval to ensure that the projects implement fire protection design features per California building and fire code regulations that would reduce potential fire hazards. Cumulative increased demands for services would also be offset by the City of Santa Ana fire facilities fee that is required for each city development project.

As shown in Table 5-1 and Figure 5-1, there are ten cumulative projects within Santa Ana in the Project vicinity that would combine to generate additional demands for OCFA services from the six City-owned fire stations located within approximately 4 miles of the Project site, including Stations 76 and 77 that are first

and second responding stations to the Project site. Four of the ten other projects include multi-family housing. The four other residential projects are anticipated to provide a total of 2,088 new residential units.

Because six of the City's ten existing fire stations are located approximately 4 miles of the Project site, and related projects would be subject to the same impact fees that provide funding for additional equipment and staffing, and fire safe construction requirements, impacts related to fire services from the proposed Project would not combine with other related projects to result in a cumulative impact related to the need for new or physically altered fire service facilities. Further, as disclosed in the GPU FEIR, 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 and buildout pursuant to the GPU would result in less than significant impacts to fire protection services. Therefore, cumulative impacts associated with fire services would be less than cumulatively considerable.

5.11.2.7 FIRE PROTECTION SERVICE EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS OR POLICIES

The following standard regulations would reduce potential impacts related to fire protection services:

- OCFA Fire Prevention Guideline B-09, Fire Master Plans for Commercial and Residential Development
- Santa Ana Municipal Code Chapter 14; Fire Code
- Santa Ana Municipal Code Chapter 8-46; Fire Facilities Fee

5.11.2.8 FIRE PROTECTION SERVICE LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impact PS-1 would be less than significant.

5.11.2.9 FIRE PROTECTION SERVICE MITIGATION MEASURES

GPU FEIR Mitigation Measures

No mitigation measures related to fire services were included in the GPU FEIR.

Proposed Specific Plan Project Mitigation Measures

No mitigation measures are required.

5.11.2.10 FIRE PROTECTION SERVICE LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant unavoidable adverse impacts related to fire protection services would occur.

5.11.3 POLICE SERVICES

5.11.3.1 POLICE SERVICES REGULATORY SETTING

City of Santa Ana General Plan

The Public Safety Element includes the following public safety policies are related to police services and the proposed Project.

- 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.
- 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.
- POLICY PS-2.7** 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-2.10** Maintain, update, and adopt an emergency operations plan and hazard mitigation plan to prepare for and respond to natural or human generated hazards.

5.1.1.3.2 POLICE SERVICES ENVIRONMENTAL SETTING

The Santa Ana Police Department provides police services throughout the City. The Police Department headquarters is located west of City Hall (60 Civic Center Plaza), which is approximately 4.1 miles north of the Project site. The Police Department also has the following additional policing facilities (as shown on Figure 5.1.1-1, *Existing Police Facilities*):

- Westend Substation located at 3750 West McFadden Avenue, which is 4.4 miles from the Project site;
- Southeast Substation located at 1780 E McFadden Avenue, which is 4.8 miles from the Project site; and
- Santa Ana Police Athletic and Activity League (PAAL) Community Center located at 2627 West McFadden Avenue, which is 3.6 miles northwest of the Project site.

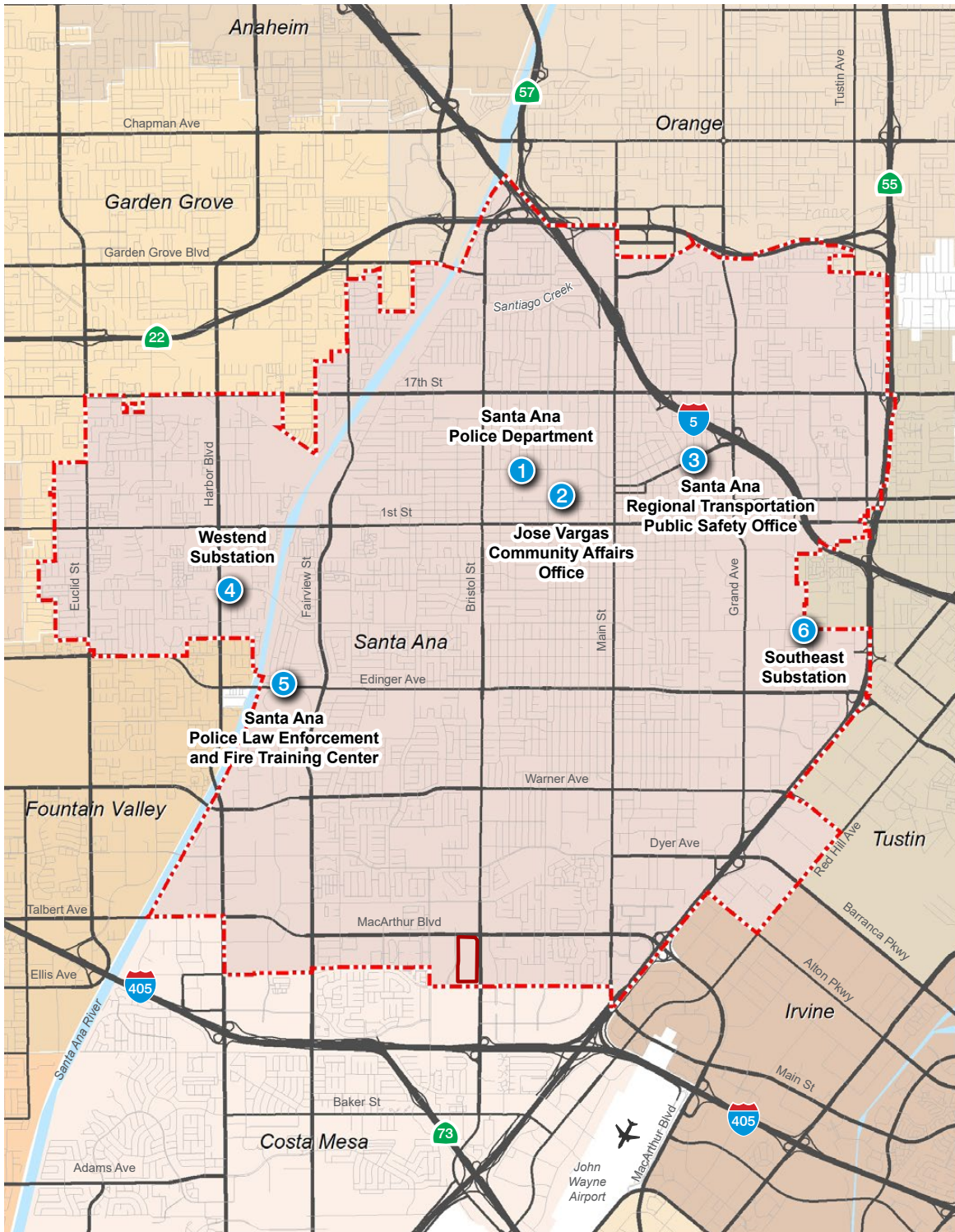
The Police Department is divided into four policing districts, they are listed below. The Project site is located within the Southcoast division.:

- 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

In 2022, the Santa Ana Police Department had 302 officers, which included 168 members in the Field Operations Bureau and 134 patrol officers (SAPD 2023). Based on the California Department of Finance estimate that 308,459 residents lived within the City in 2022, the City's sworn officer to population ratio is 0.98 officers per 1,000 population.

In 2022, officers responded to 126,973 calls for service and initiated 51,739 community engagement contacts and enforcement actions, which totaled 178,712 policing activities. In 2022, the average emergency response time was 5:22 minutes.

Existing Police Facilities



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Police Department Performance Standards

The Santa Ana Police Department has no set performance standards, nor does it apply a staffing ratio to evaluate performance needs. The Police Department uses the following two performance metrics to evaluate adequacy of services: call-for-service response times and implementation of de-escalation and virtual training platforms.

According to the Santa Ana Police Department 2022 Year-End Review, the Department was able to meet both performance metrics related to emergency response times and training. Training programs resulted in a 12 percent decrease in use of force and a 24 percent reduction in at-fault officer-involved traffic collisions in 2022. Additionally, the average emergency response time in 2022 was 5:22 minutes, a 20 percent reduction from 2020 (SAPD, 2023).

5.11.3.3 POLICE SERVICES THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to result in substantial adverse physical impacts associated with the provision of new or physically altered police department 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 services.

5.11.3.4 POLICE SERVICES METHODOLOGY

The potential impacts related to police services were evaluated based on the ability of existing and planned Police Department staffing, equipment, and facilities to meet the additional demand for police 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 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 station and substations and would require the construction of a new station or an expansion of an existing station.

5.11.3.5 POLICE SERVICES ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR determined that buildout of the GPU would consist of development of up to 36,261 housing units and 5,849,220 SF of non-residential development; resulting in a total of 360,077 residents and 170,416 jobs that would generate an increase in demand for police services. This includes 8,733,780 SF of mixed uses, inclusive of residential uses, within the Project site. The GPU FEIR describes that the Santa Ana Police Department does not apply a staffing ratio but instead evaluates performance and needs. The GPU FEIR determined that that buildout of the GPU would result in the need for additional officers; the number of which would be based on the number of calls for service and average response times in the future. The GPU FEIR also determined that impacts to police services would be less than significant and did not identify the need for expanded or new policing facilities.

Proposed Specific Plan Project

IMPACT PS-2 THE PROJECT WOULD NOT RESULT IN SUBSTANTIAL ADVERSE PHYSICAL IMPACTS ASSOCIATED WITH THE PROVISION OF NEW OR PHYSICALLY ALTERED POLICE SERVICE 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 SERVICES.

Less than Significant Impact. The proposed Project includes development of an administrative Police Department substation (no transfers or bookings) to be located within the commercial use area. The specific location would be determined prior to construction of Phase 1 of the proposed Project. The proposed Police Department substation would provide space for the expansion of policing services in the southern portion of the City, including the ability to quickly respond to emergency calls from within the Project site. The construction and operational activities related to the new police substation are included as part of the proposed Project and would not result in any physical environmental effects beyond those identified throughout this Draft EIR. For example, an analysis of construction emissions from building the new substation is included in Sections 5.1, *Air Quality*, and 5.5, *Greenhouse Gas Emissions*.

The proposed Project would result in an increase in onsite population that would create an increased demand for police services. As described in Section 5.10, *Population and Housing*, the proposed Project is anticipated to result in 9,238 residents and 1,092 employees at full occupancy. This residential and employee population is expected to create the typical range of police service calls.

Crime and safety issues during Project construction may include: theft of building materials and construction equipment, malicious mischief, graffiti, and vandalism. During operation, the proposed Project is anticipated to generate a typical range of police service calls, such as vehicle burglaries, residential thefts, commercial shoplifting, and disturbances. During operation, the proposed Project would address typical residential security concerns by providing low-intensity security lighting, security cameras, electronic access to buildings, and onsite security personnel. Pursuant to the City's existing permitting process, the Police Department would review and approve the final site plans to ensure that the City's Crime Prevention through Environmental Design (CPTED) measures (General Plan Policy PS-2.1) are incorporated appropriately to provide a safe environment.

The proposed Project would result in an incremental increase in demands on law enforcement services but would not be significant when compared to the current demand levels. As described previously, the residential population of the Project site at full occupancy would be approximately 9,238 residents. Based on the Police Department's 2022 staffing ratio of 0.98 officers per thousand population, at buildout, the proposed Project would require 9 additional officers. These new officers would be added to the Police Department staffing and would be accommodated by the proposed administrative Police Department substation because not all 9 would work at the same time, with staggered shifts in the field and on patrol. With the additional staffing and onsite proposed administrative Police Department substation, law enforcement personnel are anticipated to be able to respond in a timely manner to emergency calls within the Project site.

Providing adequate police personnel is part of the City's annual budgetary process, and it is the City's priority to provide adequate police officers and associated equipment. Because the addition of 9 additional officers, based on Project buildout assumptions, could be accommodated by the proposed administrative Police Department substation and also other existing City policing facilities, the proposed Project would not result in the requirement to construct any other new facilities or expand any of the City's existing policing facilities. Therefore, because the proposed Project incorporates a new substation as part of the proposed Project, the construction of which is analyzed in conjunction with the proposed Project, the proposed Project would not result in the need for additional new or physically altered police protection facilities offsite. As

described above, the proposed substation is analyzed as part of the proposed Project and would not result in any substantial impacts beyond those identified in the Draft EIR associated with the construction and operation of the proposed Project. Thus, substantial adverse physical impacts associated with the resulting necessity to provide new or expanded facilities, beyond those identified throughout this Draft EIR, would not occur as a result of the proposed Project and impacts would be less than significant. As such proposed Project impacts would be consistent with those identified as part of the GPU FEIR, which determined that impacts related to police protection services would be less than significant. Furthermore, the impacts of development of the proposed administrative Police Department substation are considered part of the impacts of the proposed Project as a whole and are analyzed throughout the various sections of this Supplemental EIR.

5.11.3.6 POLICE SERVICES CUMULATIVE IMPACTS

The geographic context for cumulative police services is the area served by the City of Santa Ana Police Department. As described above, the proposed Project would result in an incremental increase in demands on law enforcement services and based on the Police Department's 2022 staffing of 0.98 officers per thousand population, the proposed Project would require approximately 9 additional officers based on buildout of the proposed Project. These additional officers would be accommodated by the proposed administrative Police Department substation on the site.

Table 5-1 lists projects within the Police Department's Southcoast District (shown in Figure 5-1) that would be served by the same Police Department patrol staffing. Because the proposed Project includes an administrative Police Department substation facility and payment of development impact fees, as required for all development projects, it would provide facilities to accommodate police protection demands from Project residents and residents in the vicinity of the proposed Project, including residents of other cumulative projects.

The expansion of police services is funded by business taxes, property taxes, sales taxes, and utility users' taxes that are generated by each development within the City. Additional Police Department personnel and associated equipment are provided through City's the annual budget review process. Because the proposed Project would provide an administrative Police Department substation on the site and generate fees for future needed Police Department personnel and equipment, the law enforcement service-related impacts from the proposed Project would not combine with other related projects to result in a cumulatively considerable impact. The proposed Project would not combine with other development projects to require expansion or construction of new police facilities, which could result in a significant environmental effect. Therefore, cumulative impacts associated with police services would be less than significant, which would be consistent with the findings of the GPU FEIR.

5.11.3.7 POLICE SERVICES EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS OR POLICIES

There are no applicable regulations related to police services that would reduce potential impacts.

5.11.3.8 POLICE SERVICES LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impact PS-2 would be less than significant.

5.11.3.9 POLICE SERVICES MITIGATION MEASURES

GPU FEIR Mitigation Measures

No mitigation measures related to police services were included in the GPU FEIR.

Proposed Specific Plan Project Mitigation Measures

No mitigation measures are required.

5.11.3.10 POLICE SERVICES LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant unavoidable adverse impacts related to police services would occur.

5.11.4 SCHOOL SERVICES

5.11.4.1 SCHOOL SERVICES REGULATORY SETTING

California State Assembly Bill 2926: School Facilities Act of 1986

In 1986, AB 2926 was enacted to authorize the levy of statutory fees on new residential and commercial/industrial development in order to pay for school facilities. AB 2926 was expanded and revised in 1987 through the passage of AB 1600, which added Sections 66000 et seq. to the Government Code. Under this statute, payment of statutory fees by developers serves as CEQA mitigation to satisfy the impact of development on school facilities.

California Senate Bill 50

The passage of SB 50 in 1998 defined the needs analysis process that is codified in Government Code Sections 65995.5 through 65998. Under the provisions of SB 50, school districts may collect fees to offset the costs associated with increasing school capacity as a result of development. Level I fees are assessed based upon the proposed square footage of residential, commercial/industrial, and/or parking structure uses. Level II fees require the developer to provide one-half of the costs of accommodating students in new schools, and the state provides the other half. Level III fees require the developer to pay the full cost of accommodating the students in new schools and are implemented at the time the funds available from Proposition 1A (approved by the voters in 1998) are expended. School districts must demonstrate to the state their long-term facilities needs and costs based on long-term population growth in order to qualify for this source of funding.

City of Santa Ana General Plan

The Santa Ana GPU includes the following policies related to schools serving the proposed Project:

Land Use Element

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.

Public Services Element

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.

5.11.4.2 SCHOOL SERVICES ENVIRONMENTAL SETTING

The Project site is located within the Santa Ana Unified School District (SAUSD) boundary, which serves a 24 square mile area and has a total of 57 schools, including: twenty-six elementary schools, two K-6 schools, four K-8 schools, eight intermediate schools, seven high schools, four educational options secondary schools,

one dependent charter, one child development center, three early childhood education programs, and one K-6 deaf and hard of hearing regional program (SAUSD 2022).

According to the California Department of Education, SAUSD had an enrollment of 44,102 students in the 2021/2022 school year (CDE 2023). The Project site is in the attendance areas of Jefferson Elementary School (1522 W. Adams Street), which is approximately 1.4 miles from the Project site; McFadden Institute of Technology (2701 S. Raitt Street), which is approximately 1.5 miles from the Project site; and Segerstrom High School (2301 W. MacArthur Boulevard), which is approximately 1.0 mile from the Project site (SAUSD 2022). Table 5.11-3 shows the total capacity, the 2021-2022 school year enrollments, and the remaining capacity of the schools that would serve students residing on the Project site. As shown on Table 5.11-3, each of the schools have remaining capacity to serve between 368 and 911 additional students.

Table 5.11-3: Existing School Capacity of Schools Serving the Project Site

School	Total Capacity	2021-22 Enrollment	Remaining Capacity
Jefferson Elementary	975	607	368
McFadden Intermediate	2,065	1,154	911
Segerstrom High	3,024	2,523	501
Total	6,064	4,284	1,780

Sources: dq.cde.ca.gov and GPU FEIR Table 5.14-6

5.11.4.3 SCHOOL SERVICES THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to 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, response times or other performance objectives for school services.

5.11.4.4 SCHOOL SERVICES METHODOLOGY

The potential impacts related to school services were evaluated based on the ability of existing and planned schools to accommodate the student population that would be generated by the proposed Project. Specifically, impacts on schools are determined by analyzing the estimated increase in student population as a result of Project build out 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 FEIR, school districts anticipate the number of students that would be generated by new residential development to plan for needed facilities. The generation rates used by the Santa Ana Unified School District are listed in Table 5.11-4.

Table 5.11-4: Santa Ana Unified School District Student Generation Rates

School Type	Single-Family Rate	Multi-Family Rate
Elementary School (K-5)	0.4028	0.1937
Intermediate School (6-8)	0.2203	0.1111
High School (9-12)	0.2868	0.1427

Source: GPU FEIR Table 5.14-7

5.11.4.5 SCHOOL SERVICE ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR determined that buildout of the GPU would consist of development of up to 36,261 housing units and 5,849,220 SF of non-residential development; resulting in a total of 360,077 residents and 170,416 jobs that would generate an increase in students and the demand for school services. The GPU FEIR Table 5.14-13 identifies that buildout of the General Plan Update would generate 5,896 elementary students, 3,372 intermediate school students, and 4,334 high school students in the Santa Ana Unified School District; and that the district would have a remaining capacity of 5,834 seats at elementary schools, 1,756 seats at intermediate schools, and 5,320 seats at high schools. Thus, the GPU FEIR determined that existing schools would be able to accommodate buildout of the GPU and funding for school improvements would be obtained from development fees pursuant to SB 50, and state and federal funding programs. The GPU FEIR also determined that pursuant to Section 65996 of the Government Code, payment of school fees is deemed to provide full and complete school facilities mitigation, and with payment of fees impacts would be less than significant.

Proposed Specific Plan Project

IMPACT PS-3 THE PROJECT WOULD NOT 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.

Less than Significant Impact. The proposed Project would develop 3,750 multi-family apartments, which would provide housing for families that may have school children. As shown in Table 5.11-5, based on the SAUSD student generation rates, the proposed Project would result in 726 elementary students, 417 intermediate students, and 535 high school students, which would total 1,678 students at Project buildout. The student population would account for approximately 18 percent of the total 9,238 residents at full occupancy.

Table 5.11-5: Students at Project Buildout

School Type	Multi-Family Rate	Total Students
Elementary School (K-5)	0.1937	726
Intermediate School (6-8)	0.1111	417
High School (9-12)	0.1427	535
Total Students		1,678

Source: GPU FEIR Table 5.14-7

As shown in Table 5.11-6, the existing remaining school capacity in the schools that would serve the proposed Project is a total of 1,780 spaces, which consists of 368 spaces at Jefferson Elementary School, 911 spaces at McFadden Intermediate School, and 501 spaces at Segerstrom High School.

Table 5.11-6: Remaining School Capacity with Buildout of the Proposed Project

School	Total Existing Capacity	2021-2022 Enrollment	Existing Remaining Capacity	Project Generated Students	Remaining Capacity with Project
Jefferson Elementary	975	607	368	726	-358
McFadden Intermediate	2,065	1,154	911	417	494
Segerstrom High	3,024	2,523	501	535	-34

Sources: SAUSD Master Plan, dq.cde.ca.gov, and GPU FEIR Table 5.14-6

As shown in Table 5.11-6, at buildout of the proposed Project, Jefferson Elementary School and Segerstrom High School may be over-capacity and additional or expanded facilities may be needed. However, the Santa Ana Unified School District Facilities Master Plan identifies that Jefferson Elementary School is planned for addition of a new two-story classroom building with 13,560 SF and 12 teaching stations; and Segerstrom High School is planned for a new 12,035 SF career technical education classroom building. These planned school facilities would assist in meeting future student capacity needs.

As described within the Regulatory Setting, the need for additional school facilities is addressed through compliance with school impact fee assessment. SB 50 (Chapter 407 of Statutes of 1998) sets forth a state school facilities construction program that includes restrictions on a local jurisdiction's ability to condition a project on mitigation of a project's impacts on school facilities in excess of fees set forth in the Government Code. These fees are collected by school districts at the time of issuance of building permits for commercial, industrial, and residential projects. The existing Santa Ana Unified School District development impact fee is \$4.08 per square foot for all new residential development, and \$0.66 per square foot for new commercial development. Pursuant to Government Code Section 65995 applicants pay developer fees to the appropriate school districts at the time building permits are issued; and payment of the adopted fees provide full and complete mitigation of school impacts. As a result, impacts related to school facilities would be less than significant with the Government Code required fee payments, which is consistent with the findings of the GPU FEIR.

5.11.4.6 SCHOOL SERVICES CUMULATIVE IMPACTS

The geographic context for cumulative impacts to schools is the Santa Ana Unified School District boundaries. The proposed Project and other development within the Santa Ana Unified School District could generate additional students resulting in the need to expand or construct new schools. As described above, at buildout, the proposed Project could generate approximately 1,678 additional students that would be accommodated by the existing schools with additional capacity available for cumulative projects.

The attendance boundaries of Jefferson Elementary, McFadden Intermediate, Segerstrom High School include areas anticipating several multi-family residential development projects that are anticipated to generate additional students within the attendance boundaries of these schools. Thus, the proposed Project in combination with related projects would result in the exceedance of capacity at a minimum of two school facilities. Expansion of existing facilities are planned at both schools, and some of the existing and/or future students could transfer to other schools within the school district that have some capacity; however, one or more school facilities within the Santa Ana Unified School District may be over capacity with implementation of the proposed Project in combination with related projects.

However, as described above, the state provided authority for school districts to assess impact fees for both residential and non-residential development projects. Fees collected in accordance with Government Code Section 65995(b) allow the Santa Ana Unified School District to plan and construct for future growth. Furthermore, the payment of those fees constitutes full mitigation for the impacts generated by new development, per Government Code Section 65995, which would reduce potential impacts related to the projects cumulative school service impacts to a less than significant level, which is consistent with the findings of the GPU FEIR.

5.11.4.7 SCHOOL SERVICES EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS OR POLICIES

- Government Code Section 65995(b)

5.11.4.8 SCHOOL SERVICES LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impact PS-3 would be less than significant.

5.11.4.9 SCHOOL SERVICES MITIGATION MEASURES

GPU FEIR Mitigation Measures

No mitigation measures related to school services were included in the GPU FEIR.

Proposed Specific Plan Project Mitigation Measures

No mitigation measures are required.

5.11.4.10 SCHOOL SERVICES LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant unavoidable adverse impacts related to school services would occur.

5.11.5 LIBRARY SERVICES

5.11.5.1 LIBRARY SERVICES REGULATORY SETTING

City of Santa Ana Municipal Code

Section 35-114 (Residential Development Tax). This section of the Municipal Code 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. General fund revenues are used to provide for the needs of public city libraries.

City of Santa Ana General Plan

The Santa Ana General Plan includes the following policies related to library services for the proposed Project:

Community Element

POLICY CM-2.6 Enhance educational opportunities in the community by expanding and maintaining access to libraries, learning centers, and technology through innovative funding sources.

Land Use Element

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.

5.11.5.2 LIBRARY SERVICES ENVIRONMENTAL SETTING

The City of Santa Ana is served by two libraries: the Main Library (26 Civic Center Plaza) which is 4.3 miles north of the Project site, and Newhope Library Learning Center (122 North Newhope Street) which is 5.5 miles northwest of the Project site.

The Main Library is 39,790 SF and has amenities such as computer labs with internet access, a learning center, and the Santa Ana History Room. The History Room collects, preserves, and makes available materials of enduring historical value relating to the development of the City of Santa Ana and Orange County. The City of Santa Ana is planning the restoration and modernization of the existing Main Library.

The Newhope Library Learning Center is 10,600 SF, and includes computer labs with internet access, a learning center, and a TeenSpace. TeenSpace is a mentoring program aimed at keeping underserved Santa Ana youth off the streets, in school, and focused on college and career plans.

Library service needs are changing with the advent of increasing resources being available online and the availability of high-speed internet services.

5.11.5.3 LIBRARY SERVICES THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to result in substantial adverse physical impacts associated with the provision of new or physically altered library facility, 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.

5.11.5.4 LIBRARY SERVICES METHODOLOGY

The potential impacts related to library services were evaluated based on the ability of existing and planned libraries to accommodate the population that would be generated by the proposed Project. Specifically, impacts on libraries are determined by identifying the extent to which the 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.

The potential impacts related to libraries are 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 SF 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.

5.11.5.5 LIBRARY SERVICES ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR determined that buildout of the GPU would consist of development of up to 36,261 housing units and 5,849,220 SF of non-residential development; resulting in a total of 360,077 residents and 170,416 jobs that would generate an increase in demand for library services.

The GPU FEIR determined that Santa Ana has 0.1633 total library square footage per capita, which is considered inadequate to meet the needs of the existing population. The GPU FEIR determined that there is

a deficit of 99,409 SF in building area and a deficit of 243,483 in collection size; and that additional resources would also be needed, such as computers, staffing, and programs.

The GPU FEIR also determined that to meet the demands of the GPU buildout, an additional 15,190 SF of library facilities, 81,353 collection items, 16.25 full-time staff, and additional computers and programming would be needed. However, the GPU FEIR determined that funding for library services comes primarily from the property tax revenue, as well as library fines and fees collected from patrons, and state, federal, or government aid, and that as development occurs, property tax revenue should grow proportionally with the property tax collections. The GPU FEIR determined that with access to online resources, including eBooks and audiobooks that are available on the libraries' system, impacts would be less than significant.

Proposed Specific Plan Project

IMPACT PS-4 THE PROJECT WOULD NOT 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.

Less than Significant Impact. The proposed Project would develop 3,750 multi-family residential units and a senior living/continuum of care use with up to 200 units, and a hotel with up to 250 rooms. Project buildout would result in approximately 9,238 additional residents, which would increase the demand for library services in the City. However, library use has declined due to the availability of online library materials and may continue to decline as the information available on the Internet increases exponentially over time (American Enterprise Institute [AEI], 2022). A majority of the residential units and many of the commercial areas (such as coffee shops, restaurants, etc.) would be equipped with internet access, which provide access to many of the same resources provided by the library and thereby limit the increased demand for library services and resources. As noted in the GPU FEIR, additional library square footage is needed to meet the demands of the GPU. Property tax revenue generated by the proposed Project, as well as future and existing development, would contribute municipal funding that could be used by the City to construct future library facilities. However, the decision to construct any such facilities and the nature of any construction would be within the discretion of the City, as the entity responsible for such construction and operation of the library. As the GPU FEIR explains, when specific projects are necessitated and subsequently undertaken by the City to address future growth demands, CEQA analysis would be conducted. Therefore, impacts related to expansion of library facilities would be less than significant. Additionally, pursuant to Section 35-114 of the Municipal Code, development fees would provide funding for library facilities.

Buildout of the proposed Project would not result in the need for new or physically altered library facilities, the construction of which could cause significant environmental impacts. The GPU FEIR determined that with access to online resources, including eBooks and audiobooks that are available on the libraries' system, impacts would be less than significant. As the proposed Project would be developed consistent with the buildout assumption for the site pursuant to the GPU, impacts to library services would be consistent with those identified within the GPU FEIR. Therefore, impacts to library services would be less than significant.

5.11.5.6 LIBRARY SERVICES CUMULATIVE IMPACTS

The geographic scope for cumulative library services is the City of Santa Ana, which is the area served by the existing City libraries. As described previously, library service needs have changed with resources being available online and the availability of high-speed internet services in residences, residential amenity areas, and commercial locations. Therefore, new development, such as the proposed Project, results in a limited need for library resources/services or square footage of library space. Although demand for library services

may incrementally increase as cumulative development occurs through implementation of the GPU as discussed in the GPU FEIR, library use has declined due to the availability of online library materials and may continue to decline as the information available on the Internet increases exponentially over time (AEI, 2022). Thus, the combined effect of the proposed Project's impacts related to libraries would not result in the need for a new or expanded library, the construction of which could result in significant impacts. Therefore, impacts from cumulative impacts associated with library services would be less than significant.

5.11.5.7 LIBRARY SERVICES EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS OR POLICIES

- Government Code Section 65995(b)

5.11.5.8 LIBRARY SERVICES LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impact PS-4 would be less than significant.

5.11.5.9 LIBRARY SERVICES MITIGATION MEASURES

GPU FEIR Mitigation Measures

No mitigation measures related to library services were included in the GPU FEIR.

Proposed Specific Plan Project Mitigation Measures

No mitigation measures are required.

5.11.5.10 LIBRARY SERVICES LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant unavoidable adverse impacts related to library services would occur.

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5.12 Parks and Recreation

5.12.1 INTRODUCTION

Pursuant to the requirements of CEQA, this section of the Supplemental EIR analyzes whether the proposed Project would (1) increase the use of existing parks and recreational facilities such that substantial physical deterioration or degradation of the facilities would occur or be accelerated or that new or expanded facilities would be required; (2) result in substantial adverse construction-related effects associated with the provision of new or physically altered parks and recreational facilities, whether on site or offsite; and/or (3) adversely affect existing recreational facilities. Information within this section is based on the following:

- *City of Santa Ana General Plan Update*
- *City of Santa Ana General Plan Update FEIR*
- *City of Santa Ana Municipal Code*

New housing can result in substantial population growth and the need for additional park and recreation facilities. Because CEQA focuses on physical environmental effects, this section analyzes whether any physical changes resulting from an increase in demands for park and recreation facilities from the proposed Project could result in significant adverse environmental effects. Thus, an increase in use of parks and recreation facilities would not, by itself, be considered a physical change in the environment. However, physical changes in the environment resulting from the construction of new facilities or an expansion of existing facilities to accommodate the increased staff or equipment needs related to substantial physical deterioration could constitute a significant impact. The proposed Project has also been evaluated to determine its consistency with the City's zoning code provisions related to the provision of park and recreation facilities.

5.12.2 REGULATORY SETTING

Mitigation Fee Act

The California Mitigation Fee Act, Government Code Sections 66000, et seq., allows cities to establish fees to be imposed upon development projects for the purpose of mitigating the impact that the development projects have upon the city's ability to provide specified public facilities. In order to comply with the Mitigation Fee Act, the city must follow four primary requirements:

- (1) Make certain determinations regarding the purpose and use of a fee and establish a nexus or connection between a development project or class of project and the public improvement being financed with the fee;
- (2) Segregate fee revenue from the General Fund in order to avoid commingling of capital facilities fees and general funds;
- (3) For fees that have been in the possession of the city for five years or more and for which the dollars have not been spent or committed to a project the city must make findings each fiscal year describing the continuing need for the money; and
- (4) Refund any fees with interest for developer deposits for which the findings noted above cannot be made.

As described below, the City of Santa Ana has adopted a parkland dedication and/or in-lieu fee that is included in the Municipal Code Chapter 35.

City of Santa Ana General Plan

The Santa Ana General Plan Update (GPU) includes the following park and recreation objectives and policies that are related to the proposed Project:

Land Use Element

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

POLICY LU-1.3 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 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: Provide a balance of land uses that meet Santa Ana's diverse needs.

POLICY LU-2.9 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: Support a sustainable Santa Ana through improvements to the environment and a culture of collaboration.

POLICY LU-4.9 Encourage public, private and commercial recreational facilities in areas that are park and open space deficient.

Open Space Element

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-1.2 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 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 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 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 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.

City of Santa Ana Parks Master Plan

The City of Santa Ana Parks Master Plan was adopted in May 2022. The Parks Master Plan provides guidance and priorities in order to reach the City's GPU policy of 3 acres per 1,000 residents by setting a goal to increase parkland to 1.5 acres per 1,000 residents by 2032 through parkland acquisition. It further recommends improvements, enhancements and a diversity of amenities at existing sites. In addition, the Parks Master Plan provides a cost and investment strategy for the acquisition of new and maintenance of existing parkland.

City of Santa Ana Municipal Code

Section 34-204. Santa Ana Municipal Code, Section 34-204 sets forth the requirements for the dedication of land for parks and recreational purposes, based on the type of development proposed. For multi-family developments, Section 34-204 requires 0.005 acres or 209.1 SF of land to be dedicated for parks or recreational purposes per dwelling unit.

Section 35-108. Santa Ana Municipal Code, Section 35-108 requires that residential development fees be paid for the acquisition, construction, and renovation of park and recreation facilities based on a standard of two (s) acres of public parkland per 1,000 residents. The fees collected shall be placed in a special fund to be known as the "Park Acquisition and Development Fund." Moneys in such fund shall be expended for the acquisition, construction, and renovation of park and recreation facilities.

Section 35-110. Santa Ana Municipal Code, Section 35-110 requires that any person adding net residential units or converting apartments to condominiums in the City of Santa Ana shall pay to the City fees in such amounts as shall be set by resolution of the city council. The code section states that the purpose of preserving an appropriate balance between the demand by residents for use of park and recreational facilities and the distinctions in fees with respect to types of residential units are to reflect the differences in the demand for use of public park and recreation facilities.

Section 35-111. Santa Ana Municipal Code, Section 35-111 requires that park and recreation related fees for addition of residential units be paid prior to the issuance of a building permit for any construction which adds net residential units. No building permit shall be issued until such fees are paid.

5.12.3 ENVIRONMENTAL SETTING

The City of Santa Ana Parks Master Plan describes that the City has approximately 370.8 acres of developed park and recreational space that ranges in size from 0.1-acre to 65.3 acres within 44 parks; and that the City has plans to construct two additional parks. As discussed in Section 5.10, *Population and Housing*, the City had a population of 308,459 in 2022. Therefore, the City has approximately 1.2 acres of public park and/or recreational space per every 1,000 residents.

There are no existing parks within the South Bristol Street Focus Area and the southwestern portion of the Project site is located within a park-deficient area as identified in the GPU FEIR. The closest existing park and recreation facilities to the Project site (within two miles) in the City of Santa Ana are listed in Table 5.12-

1. As shown, the City currently has six existing parks that provide 69.48 acres of parkland within two miles of the Project site. Only Bomo Koral Pak (10.40 acres) is within a 10-minute walking distance.

Table 5.12-1: Santa Ana Park and Recreation Facilities Within Two Miles of the Project Site

Park and Address	Amenities	Acreage	Miles from Project Site	Travel Time from Project Site ¹
Bomo Koral Park 900 W. MacArthur Blvd.	Ball Diamonds, Multi-purpose Field, Parking, Picnic tables	10.40 acres	0.5 mile	Driving: 3 minutes Walking: 9 minutes
Sandpointe Park 3700 S. Birch St.	Restrooms, Basketball Courts, Hiking & Exercise Trail, Multi-purpose Field, Playground, Picnic Tables, Tennis Courts, Volleyball	7.73 acre	0.9 mile	Driving: 4 minutes Walking: 18 minutes
Segerstrom Triangle 1000 W. Hemlock Wy	Open space	1.33 acres	0.9 mile	Driving: 5 minutes Walking: 18 minutes
Griset Park 2302 W. MacArthur Blvd.	Multi-purpose Field	6.79 acres	0.9 mile	Driving: 5 minutes Walking: 18 minutes
Carl Thornton Park 1801 W. Segerstrom Ave.	All Access Park, Playgrounds, Ball Diamonds, Bike Trail, Hiking and Exercise Trail, Multi-purpose Field, Drinking Fountain, Lake, Restroom	32.83 acres	1.0 mile	Driving: 5 minutes Walking: 21 minutes
Lillie King Park 498 W. Alton Ave.	Multi-purpose Field, Parking, Playground, Picnic Tables	10.40 acres	1.1 miles	Driving: 5 minutes Walking: 25 minutes
Total Acreage of Parkland		69.48 acres		

Source: City of Santa Ana General Plan and City of Santa Ana Parks, Recreation and Community Services Website, 2019. Accessed April 2023. ¹ Per Google Earth.

5.12.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect related to parks and/or recreation if it were to result in:

- PR-1 Substantial adverse physical impacts associated with the provision of new or physically altered park or recreation facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives;
- PR-2 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; or
- PR-3 Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

5.12.5 METHODOLOGY

The analysis below considers the increase in use of parks and recreation facilities that would be generated by the proposed Project in relation to the ability of existing park and recreation facilities to accommodate the increased use. The analysis considers whether an increase in use would result in the substantial physical deterioration of existing recreational facilities, such as accelerated wear on sports facilities and fields, or in the need for new or expanded facilities.

The analysis uses a parkland-to-population ratio to measure demand for recreational facilities that is based upon the City’s General Plan policy to attain 3.0 acres of park and recreation facilities per 1,000 residents. The Supplemental EIR evaluates the amount of recreational use areas that would be provided by the

proposed Project and the extent of increased usage of existing parks and recreational facilities that might result in the substantial physical deterioration of existing recreational facilities. In addition, the analysis of construction impacts associated with the development of proposed recreational facilities are considered as part of the overall Project.

5.12.6 ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR determined that the City of Santa Ana has a ratio of 1.54 acres of recreation space per 1,000 residents based on 2019 population estimates, which does not meet the City's Municipal Code parkland standard of 2.0 acres per 1,000 residents. The GPU FEIR determined that buildout based on the GPU would result in a ratio of 1.20 acres of parkland per 1,000 residents based on a total of 515.11 acres of existing and proposed parks and recreational facilities. With the full buildout of the GPU, the population is expected generate a total citywide demand for 863.27 acres of parkland and recreational facilities, which would accelerate the use and cause potential physical deterioration of existing parks and facilities. Funding for additional parks would be provided in part from impact fees and grants. However, the GPU FEIR determined there is a lack of available land and Open Space-designated land to develop new parks or expand existing facilities. Therefore, the GPU FEIR determined that with regulatory requirements and mitigation measures, the GPU's impact would be significant and unavoidable.

The GPU FEIR concluded that the City is essentially built out and limited vacant land is available to be developed with new recreational facilities. However, the GPU FEIR discussed that future projects could result in the construction of new or improved recreational facilities, which could result in significant and unavoidable impacts.

Proposed Specific Plan Project

IMPACT PR-1: THE PROJECT WOULD RESULT IN SUBSTANTIAL ADVERSE PHYSICAL IMPACTS ASSOCIATED WITH THE PROVISION OF NEW OR PHYSICALLY ALTERED PARK FACILITIES, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL IMPACTS.

Significant and Unavoidable Impact. The proposed Project would result in the development of up to 3,750 multi-family residential units, a 250-room hotel, a senior living/continuum of care use with up to 200 units, and approximately 350,000 SF of commercial uses. As described in Section 5.10, *Population and Housing*, the proposed Project is conservatively anticipated to result in 9,238 residents at full occupancy.¹ This would increase demand for park and recreational facilities. Based on the GPU policy to attain 3 acres of parkland per every 1,000 residents, the proposed Project would result in a demand for approximately 27.7 acres of parkland, to support these additional populaces.

The proposed Project would meet a portion of this increased need through provision of approximately 13.1 acres of public open space, including a central park, two plaza spaces, a green link/paseo, and other open spaces such as landscaped parkways and programmable roads that could be used for public recreational areas. In addition, each of the buildings with residential units would include private recreation facilities for residents. Future developments pursuant to the Specific Plan would provide public and private open space

¹ While the Draft EIR's analysis relies on the person per household generation rate of 2.41 from the GPU FEIR, due to the potential unit type which would be developed within the Related Bristol Specific Plan, the applicant has commissioned a study that suggests buildout could result in a lower generation rate of 1.74 persons per household, which would result in fewer residents. Based on the 1.74 persons per household generation rate, buildout of the Project would result in 6,725 residents inclusive of senior units (Concord, 2023).

amenities at a ratio of 200 SF per unit, such as open space rooftop areas, tot lots, pools and spas, courtyards, fitness areas, dog runs, etc. Private open space areas, such as balconies and patios, would be provided at a ratio of 50 SF per unit, which is included in the 200 SF per unit requirement. Based on the ratio of 200 SF of open space per dwelling unit, buildout of the Specific Plan would include approximately 17.21 acres of public and private open space. Of that, approximately 187,500 SF (4.3 acres) of private open space would be provided based on the ratio of 50 SF per unit. Therefore, approximately 41.8 percent of the 41.13-acre Project site would be dedicated to public and private open space amenities to meet the proposed Project's demands. Thus, onsite private and public amenities are anticipated to meet most of the park and recreation needs of Project residents.

However, based on the GPU policy of 3 acres of public park and/or recreational space per 1,000 residents set forth in the GPU, the proposed Project would require the provision of approximately 27.7 acres of parkland, or 67.3 percent of the Project site, to serve the new residents. Therefore, the proposed Project would require 14.6 acres of public parkland beyond the 13.1 acres currently proposed by the Project and 10.49 acres of combined public and private recreational amenities beyond that which is required by the Related Bristol Specific Plan development standards. As detailed previously, the City currently has approximately 1.2 acres of public park and/or recreational space per every 1,000 residents; and therefore, does not have existing sufficient land or Citywide parks and recreation facilities to support in meeting the City's standard GPU policy as set forth in the findings of the GPU FEIR.

Also, as listed in Table 5.12-1, there are currently 69.48 acres of Santa Ana parkland within two miles of the Project site, including the 10.4-acre Bomo Koral Park, which is less than 10-minutes walking distance from the Project site. These existing City of Santa Ana parks provide a variety of facilities that include sports fields, exercise equipment, picnic areas, and playgrounds.

Municipal Code Sections 35-108, 35-110, and 35-111 require that residential development fees be paid for the acquisition, construction, and renovation of park and recreation facilities prior to the issuance of a building permit for any construction which adds net residential units. Thus, the proposed Project would be required to comply with applicable Municipal Code requirements of 2 acres per 1,000 residents, which is less than the GPU policy of 3 acres per 1,000 residents, and/or pay development fees which would be used in part to acquire properties to build new park sites.

In order to comply with the GPU policy, the proposed Project would require 27.7 acres of parkland or the dedication of approximately 67.3 percent of the Project site. While the proposed Project would provide approximately 17.21 acres of public and private open space onsite, inclusive of 13.1 acres of publicly accessible open space and facilities, and would comply with applicable Municipal Code requirements, the proposed Project would not provide 27.7 acres of parkland and recreation facilities onsite and would not meet the City of Santa Ana's performance standard for parkland, either on the site or cumulatively through the availability of parks and recreation facilities citywide. As discussed in the GPU FEIR, 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, there would be no feasible mitigation measures that would be able to reduce the proposed Project's contribution to significant impacts related to the City's unsatisfactory level of resident to parkland ratio. As such, impacts would be significant and unavoidable, which is consistent with the findings of the GPU FEIR.

IMPACT PR-2: THE PROJECT WOULD RESULT IN THE INCREASE OF 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.

Significant and Unavoidable Impact. As described previously in the discussion for Impact PR-1, the proposed Project would provide 13.1 acres of onsite public parks as a part of the 17.21 acres of open

space and recreation facilities, would provide private open space and recreation facilities with each building containing residential units; and would be required to pay applicable fees pursuant to Municipal Code requirements, which would be used to maintain and improve other City parks and recreation facilities. However, as discussed within the GPU FEIR, the City of Santa Ana is currently parkland deficient and is not meeting the GPU policy of 3 acres per 1,000 residents. In addition, with buildout of the GPU, the existing parkland deficiency is expected to increase as additional residential units are constructed with limited parkland increases.

It is anticipated that the proposed onsite open space and recreation facilities would meet many but not all of the needs of the new residential population, and that Project site residents would also utilize the existing 69.48 acres of parkland in the City of Santa Ana within two miles of the site. Anticipated visitation increases to these parks were estimated based on the California State Parks Survey on Public Opinions and Attitudes on Outdoor Recreation in California (2014) that established the average distance and travel time people in the Southern California region (which includes the Project site) take to reach the outdoor recreation they most often visit. The travel time is provided for both walking and driving in Table 5.12-2.

Table 5.12-2: Average Travel Time in Southern California to Outdoor Recreation Areas

Mode	<5 min	6-10 min	11-12 min	21-60 min	>60 min
Driving	20.1%	17.2%	20.8%	31.3%	10.6%
Walking	27.5%	20.3%	31.5%	18.9%	1.8%

Source: California State Parks, 2014.

As shown in Table 5.12-2, over 58 percent of people regularly drive up to 12 minutes to reach typical outdoor recreation uses. Another 31.3 percent drive between 20 and 60 minutes. Also, 47.8 percent of people that walk to outdoor recreation typically take less than 10 minutes; and 79.3 percent walk 12 minutes or less to outdoor recreation. All of the park and recreation facilities previously listed on Tables 5.12-1 are within the 12-minute driving distance; however, only Bomo Koral Park is within a 10-minute walking distance of the Project site. However, General Plan Open Space Element Policy OS-1.4 calls 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 home.

The California State Parks Survey on Public Opinions and Attitudes on Outdoor Recreation in California (2014) describes that 16.7 percent of residents visit parks two or more times per week, 13.8 percent visit parks about once a week, 20.6 percent visit once or twice per month, 24.4 percent visit several times a year, and 15.1 percent visit once or twice a year.

The facility users in Southern California went an average of 5.76 days per month and spent an average of approximately 30 minutes per visit. The adult park and recreation users generally engage in the following activities: walking on paved surfaces: 49.8 percent, playing: 27.9 percent, picnicking: 22.0 percent, sedentary activities: 17.6 percent, sports: 21.4 percent, running: 15.6 percent, and dog walking: 10.8 percent. The parks and recreation users under 18 years old generally engage in the following activities: playing: 57.8 percent, sports 33.1 percent, other 21.6 percent, walking on paved surfaces: 16.4 percent, picnicking: 14.3 percent, jogging: 14.5 percent.

Based on the California State Parks information for the Southern California region, the anticipated number of Project residents at full occupancy (9,238 residents), the distance and type of recreational facilities near the Project site, it is anticipated that the proposed Project would generate 1,543 additional park users two or more times per week, 1,275 additional park users about once per week, 1,903 additional park users once or twice per month, 2,254 additional park users several times a year, and 1,395 additional park users once or twice a year that would utilize the 69.8 acres of existing parks within 2 miles of the Project site and the 17.21 acres of parks and recreational facilities within the Project site.

In addition to the public open space that would be provided onsite by the proposed Project, Section 3.3 of the Related Bristol Specific Plan includes requirements for the provision of private recreational facilities for future development projects within the Specific Plan area. The Related Bristol Specific Plan would require the provision of a private recreation facility for Project residents within the Bristol Central Park, which would be provided in addition to the 2.5-acre publicly accessible park.

While the proposed Project would provide approximately 17.21 acres of public and private open space, inclusive of 13.1 acres of publicly accessible open space and recreational facilities onsite, per the requirements of the Related Bristol Specific Plan, the proposed Project's provision of parkland would not meet the City of Santa Ana's GPU performance standard of 3 acres of parkland for every 1,000 residents, either on the site or cumulatively. As the existing ratio of acreage of parks and recreational facilities to existing City population results in a parkland deficiency of approximately 154.44 acres, development of the proposed Project would continue to result in a deficiency in parkland throughout the City of Santa Ana. The Project proposes to provide approximately 1.4 acres of publicly accessible open space per 1,000 residents, which exceeds the approximately 1.2 acres per 1,000 residents currently existing within the City. Notwithstanding the Project's provision of public open space in proportion greater than existing currently in the City, 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 facility. As such, impacts would be significant and unavoidable, consistent with the findings of the GPU FEIR.

IMPACT PR-3: THE PROJECT WOULD INCLUDE RECREATIONAL FACILITIES OR REQUIRE THE CONSTRUCTION OR EXPANSION OF RECREATIONAL FACILITIES WHICH MIGHT HAVE AN ADVERSE PHYSICAL EFFECT ON THE ENVIRONMENT.

Significant and Unavoidable Impact. As described above, the proposed Project proposes 17.21 acres of common and private open space and recreation facilities, including 13.1 acres of public open space. 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 throughout the various sections of this Supplemental EIR. For example, activities such as grading and construction, as required for the park and recreational components of this proposed Project, are analyzed in the Air Quality, Greenhouse Gas Emissions, Noise, and Transportation sections.

In addition to the 17.21 acres of common and private open space and recreation facilities, the proposed Project would contribute park development fees pursuant to Municipal Code Sections 35-108, 35-110, and 35-111 to be used towards the future expansion or maintenance parks and recreational facilities. However, the proposed Project's provision of parkland would not meet the 27.7 acres of parkland based on the GPU policy of 3 acres of parkland for every 1,000 residents, either on the site or cumulatively through the availability of parks and recreation facilities citywide. As discussed in the GPU FEIR, the City of Santa Ana is essentially fully built out and there is a lack of available land to develop new parks or expand existing facilities. Therefore, there would be no feasible mitigation measures that would reduce significant impacts related to the City's resident to parkland ratio as there is no land within the City to provide such additional parkland. As such, the proposed Project could require the construction or expansion of recreational facilities, the construction of which could result in significant impacts. As such, impacts would be significant and unavoidable, which is consistent with the findings of the GPU FEIR.

5.12.7 CUMULATIVE IMPACTS

The cumulative area of recreation impacts for the proposed Project includes the City of Santa Ana. As detailed previously, the City currently has approximately 1.2 acres of public park and/or recreational space per every 1,000 residents which is below the City's GPU policy parkland standard of 3 acres of parkland

per 1,000 residents. Based on 3 acres of public park and/or recreational space per 1,000 residents, buildout of the proposed Project results in a need for approximately 27.7 acres of parkland to serve the 9,238 new residents of the Project site. The 13.1-acres of public parks provided onsite would be approximately 14.6 acres less than the 27.7 acres of public parkland required, and the overall provision of 17.21 acres of common or private open space would be 10.49 acres less than the City's parkland standard. Therefore, the proposed Project would exacerbate the existing citywide parkland deficiency. Although the proposed Project and cumulative projects would be required to provide park and recreational facilities and/or pay in-lieu fees as required by the municipal code, there is a lack of available land to develop new parks or expand existing facilities and the proposed Project's impacts related to the amount of parkland within the City would be cumulatively considerable and cumulative impacts related to parks and recreational facilities would be significant.

5.12.8 EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS, OR POLICIES

The following standard regulations would reduce potential impacts related to park and recreation services:

- California Code Sections 66000 (Mitigation Fee Act)
- Santa Ana Municipal Code Section 35-108
- Santa Ana Municipal Code Section 35-110
- Santa Ana Municipal Code Section 35-111

5.12.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impacts PR-1 through PR-3 and cumulative impacts would be potentially significant.

5.12.10 MITIGATION MEASURES

GPU FEIR Mitigation Measures

REC-1 The City shall monitor new residential development within the Dyer/55 Fwy focus area. Development proposals for projects including 100 or more residential units shall be required to prepare a public park utilization study to evaluate the project's potential impacts on existing public parks within a one half (1/2) mile radius to the focus area. The evaluation shall include the population increase due to the project and the potential for the new resident population to impact existing public parks within the radius. Each study shall also consider the cumulative development in the Dyer/55 Fwy and the potential for a cumulative impact on existing public parks within the radius. If the study determines that the project, or its incremental cumulative impacts would result in a significant impact (substantial physical deterioration or substantial acceleration of deterioration) to existing public parks, the project shall be required to mitigate this impact. Measures to mitigate the significant impact may include but are not limited to land dedication and fair-share contribution to acquire new or to enhance existing public parks within the radius. Mitigation shall be completed prior to issuance of occupancy permits.

Proposed Project Applicability: Mitigation Measure REC-1 is not applicable to the proposed Project because the Project is not located within the Dyer/55 Fwy Focus Area.

Proposed Specific Plan Project Mitigation Measures

None.

5.12.1.1 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts PR-1 through PR-3 and cumulative impacts would be significant and unavoidable. Although the proposed Project would provide public open space onsite and would be required to pay applicable park development fees pursuant to Municipal Code Sections 35-108, 35-110, and 35-111, the City of Santa Ana has a lack of available land to develop substantial new parks or expand existing facilities. As such, there is no feasible mitigation to reduce impacts related to the lack of parkland resulting from residential development within the City.

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5.13 Transportation

5.13.1 INTRODUCTION

This section addresses potential transportation impacts that may result from implementation of the Specific Plan. The following discussion addresses the existing transportation conditions in the Project area, identifies applicable regulations, evaluates the proposed Project's consistency with applicable goals and policies, identifies and analyzes environmental impacts, and, if necessary, recommends measures to reduce or avoid adverse impacts anticipated from implementation of the proposed Project. This analysis has been prepared in accordance with CEQA requirements to evaluate potential transportation impacts based on vehicle miles traveled (VMT). Information within this section is based on the following:

- *City of Santa Ana General Plan Update*
- *City of Santa Ana General Plan Update FEIR*
- *City of Santa Ana Municipal Code*
- *Vehicle Miles Traveled (VMT) Screening Assessment (Appendix O)*

Transportation Terminology

- **Class I Bicycle Path.** Class I bicycle 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 cross-flows are minimized.
- **Class II Bicycle Lane.** Class I bicycle lanes are one-way routes denoted by a striped lane on a roadway to delineate the rights-of-way for vehicles and bikes. Bicycle lanes can be striped adjacent to the curb where no parking exists or striped to the left side of on-street parking spaces.
- **Class II Bicycle Route.** A Class II bicycle route is 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).** Traffic Analysis Zone (TAZ) refers to the geographic unit used for traffic analysis within transportation planning models, such as the San Bernardino County Transportation Authority's VMT Screening Tool model. 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 Transit Priority Area (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.

5.13.2 REGULATORY SETTING

5.13.2.1 State Regulations

Senate Bill 743 (Steinberg, 2013)

On September 27, 2013, SB 743 was signed into state law. The California legislature found that with the adoption of the Sustainable Communities and Climate Protection Act of 2008 (SB 375), the state had signaled its commitment to encourage land use and transportation planning decisions and investments that reduce vehicle miles traveled (VMT) and thereby contribute to the reduction of greenhouse gas (GHG) emissions, as required by the California Global Warming Solutions Act of 2006 (AB 32).

SB 743 requires the California Governor’s Office of Planning and Research to amend the State CEQA Guidelines to provide an alternative to Level of Service (LOS) as the metric for evaluating transportation impacts under CEQA. Particularly within areas served by transit, SB 743 requires the alternative criteria to promote the reduction of greenhouse gas emissions, development of multimodal transportation networks, and diversity of land uses. The alternative metric for transportation impacts detailed in the State CEQA Guidelines is VMT. Jurisdictions had until July 1, 2020, to adopt and begin implementing VMT thresholds for traffic analysis.

AB 1358: California Complete Streets Act

The California Complete Streets Act was implemented on January 1, 2011, which required circulation elements to address the transportation system from a multimodal perspective. The bill states that streets, roads, and highways must “meet the needs of all users...in a manner suitable to the rural, suburban, or urban context of the general plan.” This bill requires a circulation element to plan for all modes of transportation where appropriate—including walking, biking, car travel, and transit. The Complete Streets Act also requires circulation elements to consider the multiple users of the transportation system, including children, adults, seniors, and the disabled. The proposed Project would implement the City’s complete streets planning of the Mobility Element by providing new and improved pedestrian and bicycle circulation facilities near existing bus routes.

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.

5.13.2.2 Regional Regulations

Regional Transportation Plan/Sustainable Communities Strategy

The Southern California Association of Governments (SCAG) is the designated metropolitan planning organization for six Southern California counties (Ventura, Los Angeles, San Bernardino, Riverside, Orange, and Imperial). As the designated metropolitan planning organization, SCAG is mandated by the federal and state governments to prepare plans for regional transportation and air quality conformity. The most recent plan adopted by SCAG is the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), also known as Connect SoCal, which was adopted in September 2020. The RTP/SCS integrates transportation planning with economic development and sustainability planning and aims to comply with state GHG emissions reduction goals, such as SB 375. With respect to transportation infrastructure, SCAG anticipates, in the RTP/SCS, that the six-county region will have to accommodate 22.5 million residents by 2045 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. In addition, SCAG has taken on the role of planning for regional growth management.

5.13.2.3 Local Regulations

City of Santa Ana General Plan

The City's General Plan Update includes policies related to transportation in the Mobility Element that include the following:

- 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-1.4** 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** Ensure that new development and City projects maintain or improve the current level of service for all modes of transportation.
- POLICY M-1.6** 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** 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** Consider air and water quality, noise reduction, neighborhood character, and street-level aesthetics when making improvements to travelways.
- GOAL M-3:** 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** 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** 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** 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** 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** 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** 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** 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:** Design 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 travelways with amenities such as landscaped parkways and medians, bike lanes, public art, and other amenities.
- POLICY M-5.6** Encourage the use of alternative fuel vehicles and mobility technologies through the installation of supporting infrastructure.

Santa Ana Active Transportation Plan

The Active Transportation Plan includes recommendations meant to support and increase bicycling and walking in Santa Ana, enhance nonmotorized travel infrastructure, and create options 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 regional transportation plan (Santa Ana 2019).

5.13.3 ENVIRONMENTAL SETTING

The public roadway network serving the Project site includes Bristol Street, South Plaza Drive, Bear Street, MacArthur Boulevard, and Sunflower Avenue, which are described below and listed in Table 5.13-1.

- **Bristol Street** is a six-lane divided roadway with sidewalks on both sides that is designated as a major arterial in the Santa Ana General Plan Update and borders the Project site to the east. Bristol Street is oriented in the north-south direction, 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 miles per hour (mph). On-street parking is not permitted on either side of this roadway in the vicinity of the Project site.
- **Bear Street** is a four-lane divided roadway north of MacArthur Boulevard, five-lane divided roadway between MacArthur Boulevard and Sunflower Avenue, a six-lane divided roadway south of Sunflower Avenue and is oriented in the north-south direction. The roadway is designated as a secondary arterial in the General Plan and the posted speed limit on Bear Street is 40 mph. On-street parking is not permitted along this roadway in the vicinity of the Project site.
- **Callen’s Common** is an onsite private roadway that is oriented east to west and bisects the Project site. The roadway has four lanes with a partially raised median.
- **MacArthur Boulevard** is a six-lane divided roadway designated as a major arterial in the General Plan and borders the Project site to the north. The roadway is aligned in an east-west direction, has sidewalks on both sides of the street and has a posted speed limit of 40 mph. On-street parking is not permitted along this roadway in the vicinity of the Project site.
- **South Plaza Drive** is a four-lane divided roadway with sidewalks on both sides that borders the Project site to the west and is oriented in the north-south direction. The posted speed limit on South Plaza Drive is 25 mph. On-street parking is not permitted along this roadway in the vicinity of the Project site.
- **Sunflower Avenue** borders the Project site to the south, is designated as a major arterial in the General Plan Update and is an east-west oriented six-lane divided roadway east of Bear Street, and four-lane divided roadway west of Bear Street, with sidewalks on the westbound side. The posted speed limit on Sunflower Avenue is 40 mph. On-street parking is not permitted on either side of this roadway in the vicinity of the Project site. Sunflower Avenue divides the City of Santa Ana from the City of Costa Mesa.

Table 5.13-1, *Existing Roadway Characteristics within Specific Plan Study Area*, shows the roadway characteristics of the roadways directly serving the Project site.

Table 5.13-1: Existing Roadway Characteristics within Project Vicinity

Roadway	Designation	Number of Lanes Fronting Project Site	Sidewalks?	Bike Lane?
MacArthur Blvd (E/W)	Major Arterial	6-Lane Divided. Raised and Painted Median.	Yes, both sides.	No
Sunflower Ave (E/W)	Major Arterial	6-Lane Divided. Raised median.	Yes, on westbound side. None on eastbound side.	No
Callen’s Common (E/W)	Onsite Private Roadway	4-Lane Divided. Occasional raised median, but mostly painted median	No	No
Bear Street (N/S)	Secondary Arterial	5-Lane Divided between MacArthur Blvd and Sunflower Ave	Yes, both sides.	No
South Plaza Drive (N/S)	Local	4-Lane Divided. Raised median.	Yes, both sides	No

Roadway	Designation	Number of Lanes Fronting Project Site	Sidewalks?	Bike Lane?
Bristol Street (N/S)	Major Arterial	6-Lane Divided. Raised median.	Yes, both sides	Class II on both sides

Existing Site Access

Vehicular access to the Project site is currently provided via unsignalized driveways along MacArthur Boulevard, Bristol Street, Sunflower Avenue, South Plaza Drive, and Callen’s Common. Signalized access is provided on Bristol Street at Callen’s Common.

Existing Transit Service

The Project site is located within a Transit Priority Area (TPA) and the Southern California Association of Governments (SCAG) identifies that the Project site is located within a High Quality Transit Area. Public transit bus service for the City is provided by the Orange County Transportation Authority (OCTA). Six OCTA bus routes operate within the vicinity of the Project site and travel along MacArthur Boulevard, Bristol Street, Sunflower Avenue, Plaza Drive, and Bear Street. Also, the site is located within a high-quality transit corridor, as the fixed route bus routes provide service intervals of no longer than 15 minutes during peak commute hours, which includes the following:

- **OCTA Route 55:** The major routes of travel include MacArthur Boulevard and Bristol Street. Bus stops are provided on Bristol Street, northbound and southbound, south of the intersection with MacArthur Boulevard, adjacent to the Project site. Route 55 operates on approximately 30-minute headways on weekdays and weekends. Route 55 connects to the Newport Transportation Center.
- **OCTA Route 57:** The major route of travel includes Bristol Street. Bus stops are provided on Bristol Street, northbound and southbound, south of the intersection with MacArthur Boulevard, adjacent to the Project site. Route 57 operates on approximately 15-minute headways on weekdays and weekends. Route 57 connects to the Newport Transportation Center.
- **OCTA Route 76:** The major route of travel includes MacArthur Boulevard. Bus stops are provided on MacArthur Boulevard, eastbound and westbound, west of the intersection with Bristol Street and adjacent to the Project site. Route 76 operates on approximately 60-minute headways on weekdays and does not operate on weekends. Route 76 connects to John Wayne Airport.
- **OCTA Route 86:** The major routes of travel include Bristol Street and Sunflower Avenue. Bus stops are provided on Bristol Street, northbound and southbound, north of the intersection with Sunflower Avenue, adjacent to the Project site. Route 86 operates on approximately 60-minute headways on weekdays and does not operate on weekends. Route 86 connects to the Irvine Train Station.
- **OCTA Route 150:** The major route of travel includes Sunflower Avenue. Bus stops are provided on Sunflower Avenue, eastbound and westbound, east, and west of the intersection with South Plaza Drive, adjacent to the Project site. Route 150 operates on approximately 40-minute headways on weekdays and does not operate on weekends.
- **OCTA Route 553:** The major route of travel includes Sunflower Avenue, Plaza Drive, Main Street, and MacArthur Boulevard. Bus stops are provided on Sunflower Avenue, westbound, west of the intersection with Bristol Street, adjacent to the Project site. Route 553 operates on approximately 20-minute headways on weekdays and does not operate on weekends. Route 553 connects to the Anaheim Regional Transportation Intermodal Center.

In addition, the Southern California Regional Rail Authority also provides commuter/passenger rail service to, from, and through Santa Ana. 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 that is 6 miles north of the Project site, the Anaheim Regional Transportation Intermodal Center that is 7.2 miles north of the Project site, and the Irvine Train Station that is 9.5 miles southeast of the Project site. Amtrak’s Pacific Surfliner also provides passenger rail service through Santa Ana, connecting travelers to neighboring communities throughout Los Angeles and San Diego counties. As described previously, OCTA Bus Route 553 connects to the Anaheim Regional Transportation Intermodal Center and OCTA Bus Route 86 connects to the Irvine Train Station.

Existing Bicycle and Pedestrian Facilities

As shown on Table 5.13-1, in the Project area, Bristol Street has Class II bike lanes on the northbound and southbound sides. Sidewalks currently exist on both sides of MacArthur Boulevard, South Plaza Drive, and Bristol Street and on the westbound side of Sunflower Avenue.

Existing VMT

The City identifies VMT based on total VMT per service population for the entire County. Service population consists of the total employees and population that generate the VMT. The GPU FEIR details that the VMT per service population for the City in the year 2020 was 22.5. The year 2020 VMT and service population for the City and the County is provided in Table 5.13-2. Also, the City of Santa Ana Traffic Impact Study Guidelines Appendix A identifies that the Project site is located within a TPA and SCAG identifies that the Project site is located within a High Quality Transit Area, as shown on Figure 5.13-3, *High Quality Transit Area*.

Table 5.13-2: City and County Year 2020 VMT

	Total VMT	Service Population	VMT/Service Population
City	11,407,124	507,904	22.5
County	99,344,141	3,834,949	25.9

Source: GPU FEIR Table 5.16-2.

5.13.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

- TR-1 Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;
- TR-2 Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b);
- TR-3 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- TR-4 Result in inadequate emergency access.

Vehicle Miles Traveled Significance Criteria

State CEQA Guidelines Section 15064.3(b)(1) provides that for land use projects:

VMT traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, 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 vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.

The *City of Santa Ana Traffic Impact Study Guidelines (September 2019)* states that several types of projects can be screened out from a VMT assessment using the criteria below, which indicate that these projects have the potential to reduce VMT per service population and result in a less than significant VMT impact:

- 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 SF (Charter schools are excluded from this criteria).
- Projects that generate less than 110 net daily trips.
- Projects located within a TPA. Appendix A of the City of Santa Ana Traffic Impact Study Guidelines presents the transit priority areas in the City of Santa Ana. Due to many high quality transit routes in the City, much of the City is a transit priority area.
 - TPAs are defined as a half-mile radius around an existing or planned major transit stop (e.g., Metrolink Station, Streetcar Station, etc.) or an existing stop along a high quality transit corridor.
 - High Quality Transit Areas (HQTAs) are defined as a corridor with a fixed route bus service with service intervals no longer than 15 minutes during peak commute hours. A map of HQTAs can be reviewed on SCAG's website (but should be verified by the engineer/planner related to the criteria for these areas).
 - Projects that are within TPAs are also required to complete a secondary screenings to verify the proposed project's consistency with the assumptions from the RTP/SCS. This consistency can be a land use review (e.g., are the proposed land uses already included in the RTP/SCS) or can be reviewed from a VMT per service population perspective (e.g., does the resulting land use increase or decrease the VMT per service population in the Traffic Analysis Zone (TAZ) compared to the RTP/SCS assumptions).
- Projects located in a low-VMT generating TAZ. Appendix B of the City of Santa Ana Traffic Impact Study Guidelines presents VMT per service population in Santa Ana as compared to the Orange County average. Low-VMT TAZs per Santa Ana's threshold of significance are any TAZs generating VMT 15 percent below the Orange County average.
 - These projects will require two additional secondary screening steps:
 - Verify that the proposed land use is consistent with the existing land use that is generating low VMT per service population. This will include a land use (type, density, demographics, etc.) comparison.
 - Verify that the proposed land use is consistent with RTP/SCS assumptions, or the project decrease VMT per service population compared to the RTP/SCS.
- Appendix C of the City of Santa Ana Traffic Impact Study Guidelines shows areas in the City that cannot be screened out by being located in a TPA or low-VMT generating area and identifies locations where VMT analysis will be required.

5.13.5 METHODOLOGY

To determine whether the proposed Project would result in a significant impact related to conflict with a program, plan, ordinance, or policy related to the effectiveness of the circulation system, the extent to which the proposed Project would provide facilities to enhance the use of public transit, pedestrian, and bicycle mobility, the proposed Project was compared to adopted plans for public transit, pedestrian mobility, and bicycle facilities. A significant impact would result if the proposed Project resulted in a conflict that could result in an impact on the environment.

As outlined in CEQA Guidelines Section 15064.3, except as provided for roadway capacity transportation projects, a project's effect on automobile delay shall not constitute a significant environmental impact. Therefore, this analysis has been prepared in accordance with CEQA requirements to evaluate potential transportation impacts based on VMT. The City of Santa Ana Traffic Impact Study Guidelines provides criteria for projects that would be considered to have a less than significant impact on VMT and therefore could be screened out from further analysis; and those that would have the potential to result in a VMT impact and therefore require a VMT analysis based on VMT reduction thresholds. Consistent with the City Guidelines, the VMT screening thresholds were used to identify if the proposed Project could have an impact on VMT, which is detailed below. Trips generated by the proposed Project have been estimated based on trip generation rates provided by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition, 2021.

Vehicle Miles Traveled Analysis Methodology

The applicability of each City of Santa Ana's Traffic Impact Study Guidelines screening criterion was analyzed in relation to the proposed Project's land uses, location, and proximity to transit. If the proposed Project meets one of the screening criteria set forth in the City of Santa Ana Traffic Impact Study Guidelines, it can be presumed that the proposed Project would result in a less than significant impact.

5.13.6 ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR addressed impacts related to transportation in Chapter 5.16. Proposed improvements to the circulation system following buildout of the GPU were found to have no conflicts with related policies, plans, and programs. Therefore, impacts were determined to be less than significant. An analysis of vehicle miles traveled per service population (VMT/SP) for 2045 with GPU buildout and 2045 without GPU buildout revealed that the implementation of the GPU would reduce VMT/SP compared to existing conditions. This reduction would be less than the defined threshold of 15 percent below existing countywide VMT/SP. Therefore, the impact of the land use plan was determined to be less than significant. Circulation improvements are required to be made in accordance with local and state guidelines for circulation planning and roadway design. Specific projects will be reviewed by the City's Public Works Department. The GPU FEIR also determined that implementation of the GPU would not increase hazards due to design features or cause detriment to emergency vehicle access.

Proposed Specific Plan Project

IMPACT TR-1: THE PROJECT WOULD NOT CONFLICT WITH A PROGRAM, PLAN, ORDINANCE, OR POLICY ADDRESSING THE CIRCULATION SYSTEM, INCLUDING TRANSIT, ROADWAY, BICYCLE, AND PEDESTRIAN FACILITIES.

Less than Significant Impact. The following analysis has been prepared pursuant to SB 743, which requires that VMT thresholds be utilized for traffic analysis, and State CEQA Guidelines Section 15064.3 that states that a project’s effect on automobile delay shall not constitute a significant environmental impact.

Project Trip Generation: Vehicle trip estimates for the proposed Project were generated by using the trip rates from the Institute of Transportation Engineers (ITE) Trip Generation (11th Edition, 2021). Table 5.13-3 identifies the existing trips generated by the existing development on the site and compares it to the proposed Project to determine the net increase in vehicle trips by phase. As detailed, Phase 1 of the proposed Project is forecast to generate 4,167 “net” daily trips, with 545 “net” trips in the AM peak hour and 359 “net” trips in the PM peak hour. Phase 2 of the proposed Project is forecast to generate 3,241 “net” daily trips, with 293 “net” trips in the AM peak hour and 271 “net” trips in the PM peak hour. Phase 3 of the proposed Project is forecast to generate 80 fewer “net” daily trips, with 381 “net” trips in the AM peak hour and 58 “net” trips in the PM peak hour. Operation of all three Phases at buildout of the proposed Project is anticipated to generate 7,328 net daily trips, including 1,219 AM peak hour and 688 PM peak hour trips.

Table 5.13-3: Proposed Project Trip Generation

Land Use	Units	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Phase 1 – Existing Land Uses								
Shopping Center	244,120 SF	127	78	205	398	432	839	9,035
<i>Pass-By (10% Daily, 10% AM, 29% PM)</i>		-13	-8	-21	-115	-126	-241	-904
Total Phase 1 Existing Trips		114	70	184	283	306	589	8,131
Phase 1 – Proposed Project								
Multifamily Housing Mid-Rise	1,375 DU	117	392	509	327	209	536	6,243
Hotel	250 Rooms	64	51	115	75	73	148	1,998
Shopping Center	250,000 SF	130	80	210	408	442	850	9,253
Senior Assisted Living	200 Beds	20	10	30	15	23	38	494
Subtotal Phase 1		331	533	864	825	747	1,572	17,988
<i>Internal Capture (17% Daily, 3% AM, 18% PM)</i>		-16	-14	-30	-134	-160	-294	-3,244
<i>Non-Auto Trip Reduction (5% Daily, 5% AM, 5% PM)</i>		-17	-27	-44	-41	-38	-79	-900
<i>TDM Reduction (5% Daily, 5% AM, 5% PM)</i>		-17	-27	-44	-41	-38	-79	-900
<i>Pass-by (10% Daily, 10% AM, 29% PM)</i>		-10	-7	-17	-93	-79	-172	-646
Total Phase 1 Proposed Project Trips		271	458	729	516	432	948	12,298
Phase 1 Net Project Trip Generation Total		157	388	545	233	126	359	4,167
Phase 2 – Existing Land Uses								
Shopping Center	36,522 SF	19	12	31	60	64	124	1,352
<i>Pass-By (10% Daily, 10% AM, 29% PM)</i>		-2	-1	-3	-17	-19	-36	-135
Total Phase 2 Existing Trips		17	11	28	43	45	88	1,217
Phase 2 – Proposed Project								
Multifamily Housing Mid-Rise	856 DU	73	244	317	204	130	334	3,886
Shopping Center	65,000 SF	34	21	55	106	115	221	2,406
Subtotal Phase 2		107	265	372	310	245	555	6,292
<i>Internal Capture (17% Daily, 3% AM, 18% PM)</i>		-6	-3	-9	-49	-47	-96	-1,039
<i>Non-Auto Trip Reduction (5% Daily, 5% AM, 5% PM)</i>		-6	-13	-19	-15	-13	-28	-314
<i>TDM Reduction (5% Daily, 5% AM, 5% PM)</i>		-6	-13	-19	-15	-13	-28	-314
<i>Pass-by (10% Daily, 10% AM, 29% PM)</i>		-3	-1	-4	-24	-20	-44	-167
Total Phase 2 Proposed Project Trips		86	235	321	207	152	359	4,458
Phase 2 Net Project Trip Generation		69	224	293	164	107	271	3,241
Phase 3 – Existing Land Uses								
Shopping Center	184,421 SF	96	59	155	301	326	627	6,825
<i>Pass-By (10% Daily, 10% AM, 29% PM)</i>		-10	-6	-16	-87	-95	-182	-683

Land Use	Units	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Total Phase 3 Existing Trips		86	53	139	214	231	445	6,142
Phase 3 – Proposed Project								
Multifamily Housing Mid-Rise	1,519 DU	129	433	562	361	231	592	6,896
Shopping Center	35,000 SF	18	11	29	57	62	119	1,295
Subtotal Phase 3		147	444	591	418	293	711	8,191
Internal Capture (17% Daily, 3% AM, 18% PM)		-5	-5	-10	-70	-42	-112	-1,219
Non-Auto Trip Reduction (5% Daily, 5% AM, 5% PM)		-7	-22	-29	-21	-15	-36	-410
TDM Reduction (5% Daily, 5% AM, 5% PM)		-7	-22	-29	-21	-15	-36	-410
Pass-by (10% Daily, 10% AM, 29% PM)		-1	-2	-3	-13	-11	-24	-90
Total Phase 3 Proposed Project Trips		127	393	520	293	210	503	6,062
Phase 3 Net Project Trip Generation		41	340	381	79	-21	58	-80
TOTAL PROJECT NET TRIP GENERATION		267	952	1,219	476	212	688	7,328

Source: Appendix O

Trip generation based on rates from Institute of Transportation Engineers' (ITE) Trip Generation (11th Edition)

Roadway: Regional roadway access to the Project site is provided by I-405 to the south from the Bristol Street exit and from SR-55 at the MacArthur Boulevard exit. Local access to the Project site is provided by Bristol Street, MacArthur Boulevard, Sunflower Avenue, and South Plaza Drive.

The proposed Project would continue to provide vehicular access to the site from the adjacent roadways, but would provide new driveways: five unsignalized right-turn only driveways and one signalized driveway along South Plaza Drive, two unsignalized right-turn only driveways along MacArthur Boulevard, three unsignalized right-turn only driveways along Bristol Street (one of which would be truck driveway), two signalized driveways on Bristol Street, and two unsignalized right-turn only driveways and one signalized driveway along Sunflower Avenue. In addition, the proposed Project would provide pedestrian and bicycle access to and through the site from installation of new and/or reconstructed landscaped sidewalks, the internal Greenlink pedestrian circulation, and Class IV bike lanes on Bristol Street, MacArthur Boulevard, and Sunflower Avenue along the Project site frontage.

As shown on Figure 3-12, *Proposed Circulation Plan*, the Related Bristol Specific Plan identifies multiple circulation improvements to connect the proposed redevelopment of the site to the existing circulation system adjacent to the site in a manner that would implement efficient multi-modal circulation to, from, and within the Project site, which includes the following:

Bristol Street improvements include installation of a widened parkway with street trees, new curb cuts for ingress/egress to/from the Project site, right-of-way dedication for median reconstruction and modifications, a Class IV bike lane per the City's Mobility Element, and bus stop improvements. The proposed Project driveways include the following, as shown on Figure 5.13-1, *Proposed Project Driveways*:

- Bristol Street at Driveway C: The proposed Project would install a signalized driveway at Driveway C. The proposed Project would modify the northbound approach to provide a second left turn lane and remove the existing median. The proposed Project would remove the existing median on the southbound approach and install a five-phase traffic signal.
- Bristol Street at Driveway D: The proposed Project would install an unsignalized right-turn only driveway, which would be designated for service access only for truck deliveries to the planned grocery store.
- Bristol Street at Driveway E: The proposed Project would install an unsignalized right-turn only driveway at Driveway E.
- Bristol Street at Driveway F: The proposed Project would install an unsignalized right-turn only driveway at Driveway F.

MacArthur Boulevard improvements include right-of-way dedication for a Class IV bike lane per the City's Mobility Element, bus stop improvements, planted setback areas, construction of a new landscaped median, and street trees. The Project driveways include the following, as shown on Figure 5.13-1, *Proposed Project Driveways*:

- Driveway G at MacArthur Boulevard: The proposed Project would install an unsignalized right-turn only driveway at Driveway G.
- Driveway H at MacArthur Boulevard: The proposed Project would install an unsignalized right-turn only driveway at Driveway H.

Sunflower Avenue improvements include potential median modification, bus stop improvements, and potential right-of-way dedication for a Class IV bike lane. The proposed Project driveways include the following, as shown on Figure 5.13-1, *Proposed Project Driveways*:

- No. 19 – Project Driveway at Sunflower Avenue: a new driveway would be installed and realigned approximately 110 feet to the east of the existing driveway. The proposed Project would include restriping along Sunflower Avenue and modification of the existing median. The proposed Project would install a five-phase traffic signal, subject to the improvements/realignment of the South Coast Plaza driveway and coordination with the City of Costa Mesa.
- Driveway A at Sunflower Avenue: The proposed Project would install an unsignalized right-turn only driveway at Driveway A.
- Driveway B at Sunflower Avenue: The proposed Project would install an unsignalized right-turn only driveway at Driveway B.

South Plaza Drive improvements include new curb cutouts for ingress/egress and planted setback areas and street trees. The proposed Project driveways along South Plaza Drive include the following, as shown on Figure 5.13-1, *Proposed Project Driveways*:

- Driveway I at South Plaza Drive: The proposed Project would install an unsignalized right-turn only driveway at Driveway I.
- Driveway J at South Plaza Drive: The proposed Project would install an unsignalized right-turn only driveway at Driveway J.
- Driveway K at South Plaza Drive: The proposed Project would install an unsignalized right-turn only driveway at Driveway K.
- Driveway L at South Plaza Drive: The proposed Project would install an unsignalized right-turn only driveway at Driveway L.
- Driveway M at South Plaza Drive: The proposed Project would install an unsignalized full access driveway at Driveway M.
- No. 14 – South Plaza Drive at Callen's Common: The proposed Project would install a three-phase traffic signal.

All of the proposed Project driveways, roadway improvements, and access designs would be required to meet the City's traffic engineering design standards as a part of the City's development review and permitting approval process. The proposed Project would connect to the existing circulation system and implement the City's traffic engineering design standards. In addition, the proposed Project would provide new facilities to enhance the use of public transit, pedestrian, and bicycle mobility. Therefore, the proposed Project would not conflict with a plan, ordinance, or policy addressing roadway circulation, and impacts would be less than significant.

Transit Facilities: As described previously, the Project site is located within a TPA and a high-quality transit corridor and is served by OCTA Routes 55, 57, 76, 86, 150, and 553. These existing transit services would continue to serve the ridership in the area and would serve residents, employees, and visitors of the Project site. The proposed Project would not alter or conflict with existing transit stops and schedules, and impacts related to transit services would not occur.

Bicycle Facilities: As detailed previously, Bristol Street has Class II bike lanes. The Related Bristol Specific Plan includes installation of a Class IV bike lane on Bristol Street, MacArthur Boulevard, and Sunflower Avenue with a median buffer. Therefore, the proposed Project would enhance existing bicycle facilities within the Project vicinity. Implementation of the proposed Project would not conflict with existing or planned bike lanes or bicycle transportation. Thus, impacts related to bicycle facilities would not occur.

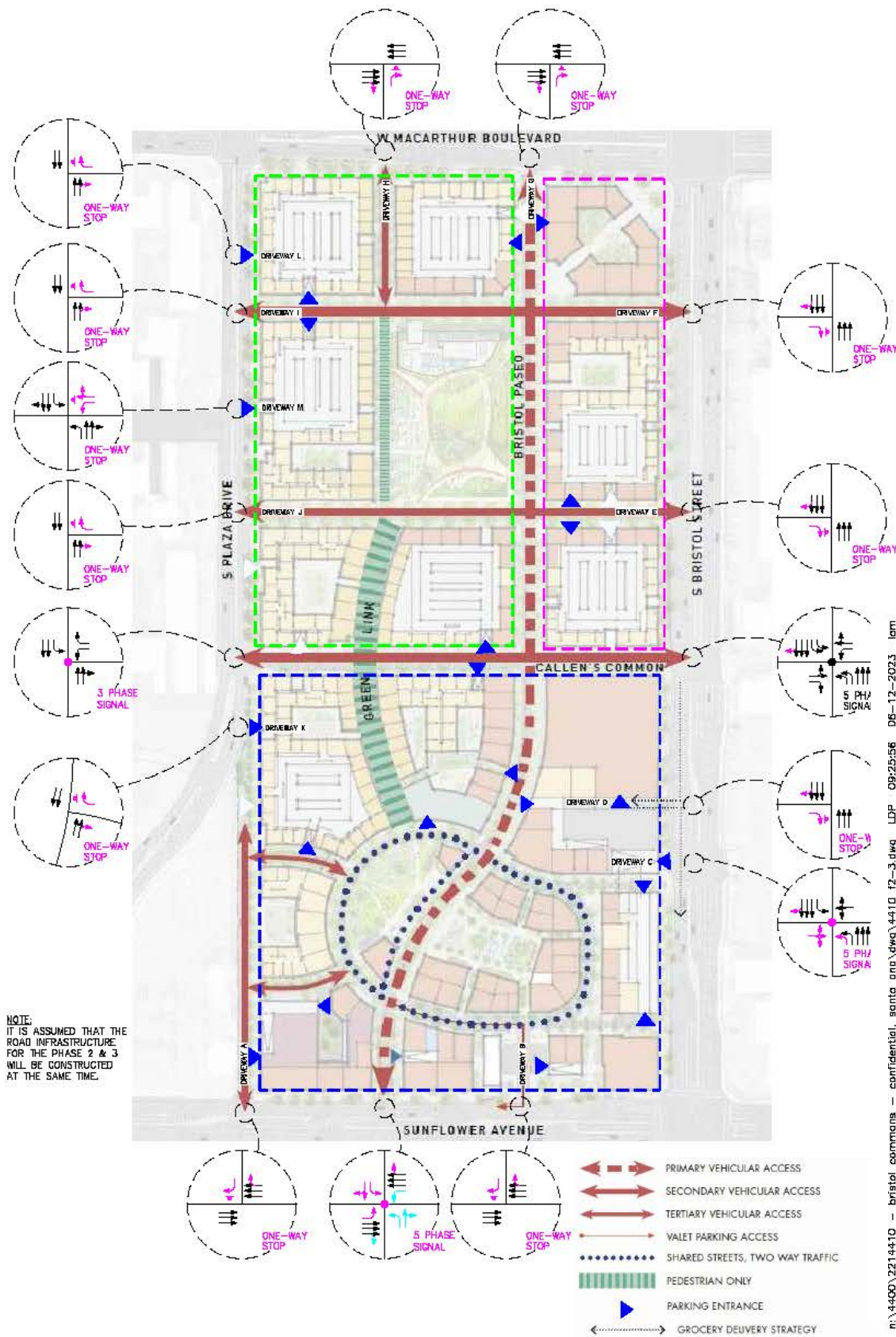
Pedestrian Facilities: As detailed previously, the Related Bristol Specific Plan includes installation of new and/or reconstructed pedestrian facilities along existing roadways and within the Project site such as the Greenlink, which would be a landscaped pedestrian paseo linking the north and south areas of the site, and have seating areas, and connections to residences, open space, and commercial areas. In addition, the proposed Project would provide pedestrian paths along Callen's Common, which would provide east and west pedestrian connectivity into the central portion of the site.

Implementation of the Specific Plan would include roadway improvements within the Project site that would provide for new sidewalks where none exist currently or provide for sidewalk improvements, thereby improving pedestrian facilities and the sidewalk network. The proposed Project would also provide sidewalks throughout the Project site that would connect the different onsite uses. Therefore, the proposed Specific Plan would not conflict with pedestrian facilities, but instead would expand and provide additional facilities.

Overall, impacts related to transit, bicycle, and pedestrian facilities would be less than significant. As described previously, the GPU FEIR determined that growth under the GPU and improvements to the circulation system with buildout of the GPU would result in no conflicts with related policies, plans, and programs. Therefore, proposed Project impacts would be consistent with those identified in the GPU FEIR, which were determined to be less than significant.

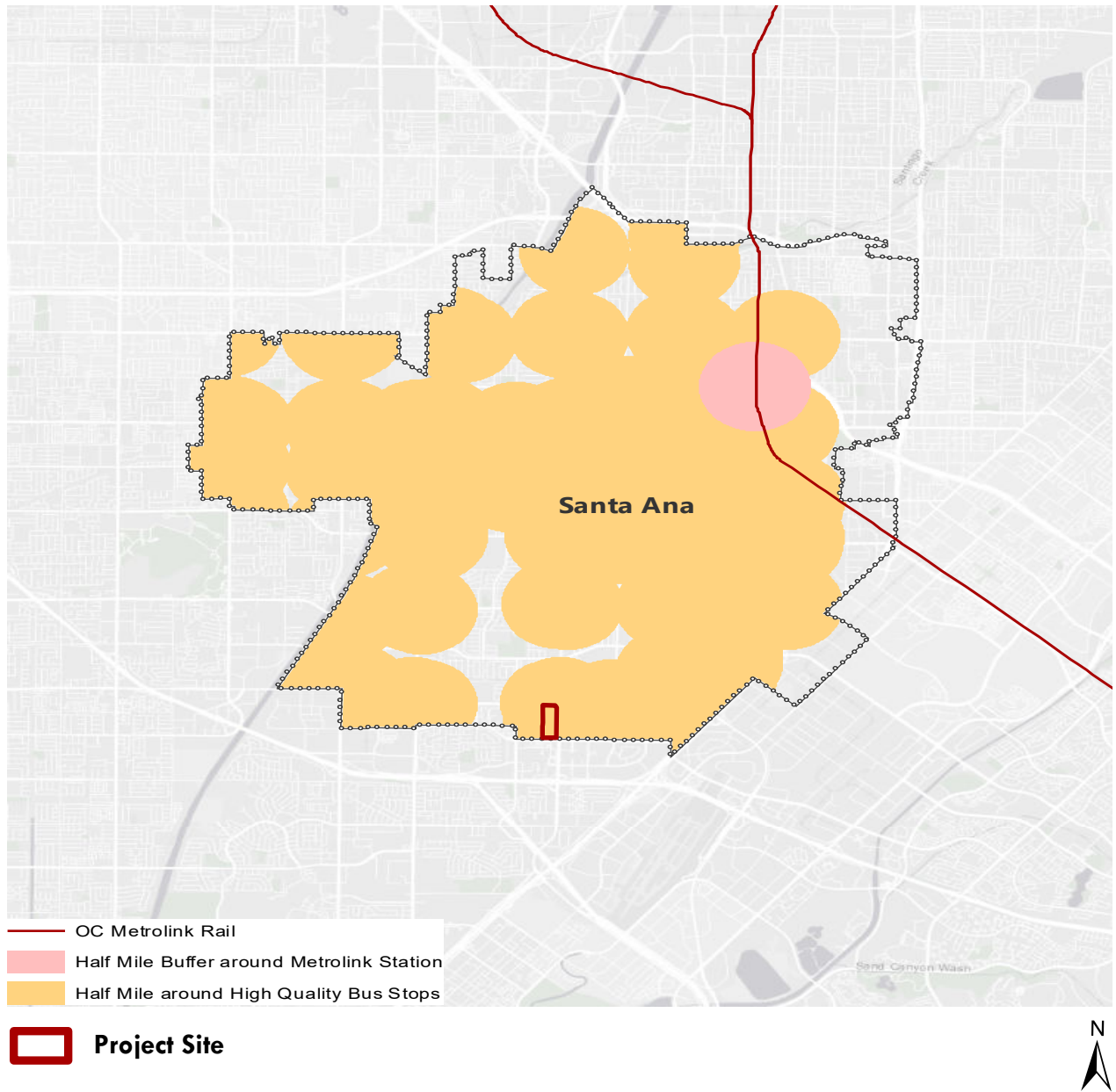
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Proposed Project Driveways



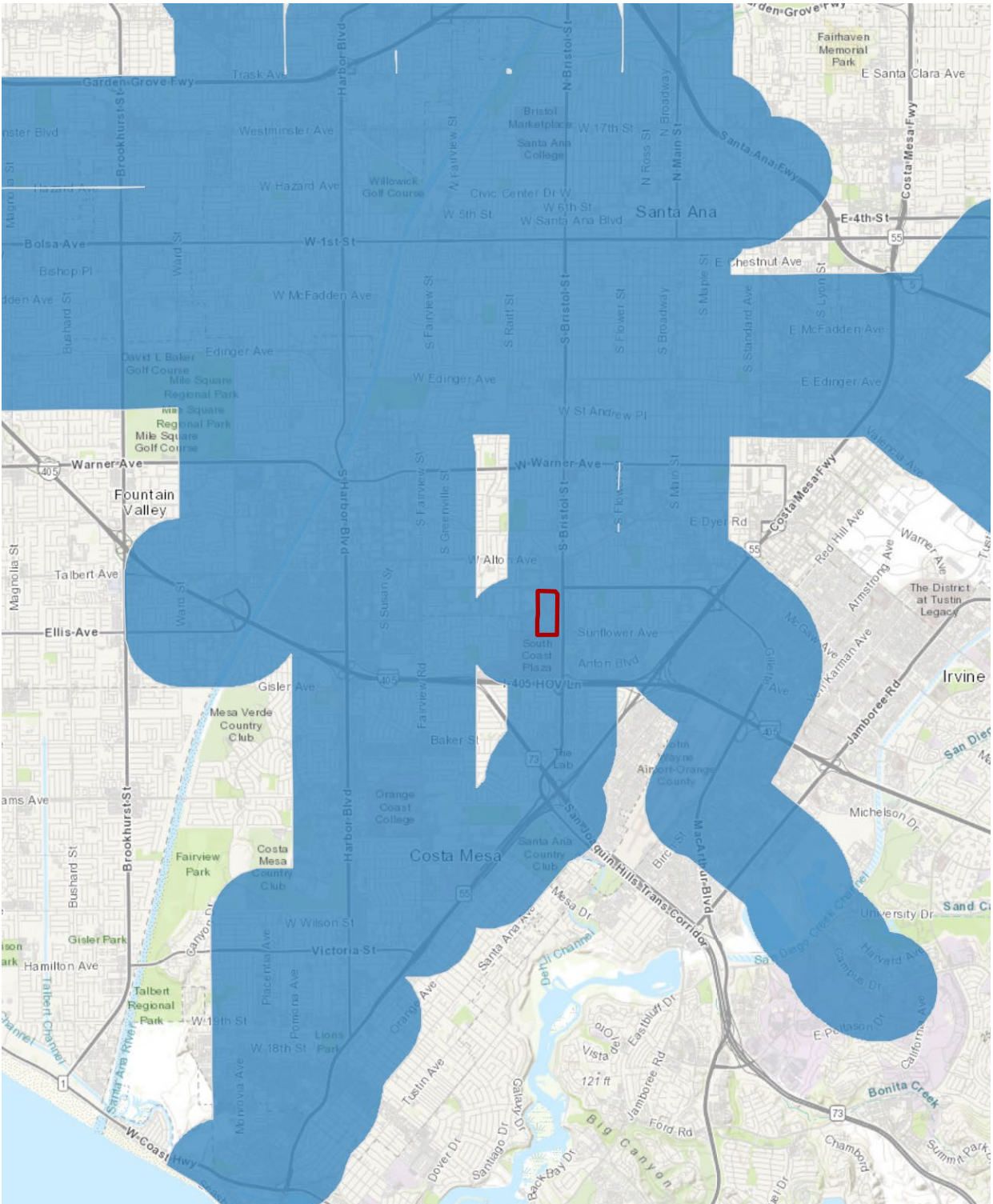
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Transit Priority Areas



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SCAG High Quality Transit Area



 Project Site  High Quality Transit Areas



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IMPACT TR-2: THE PROJECT WOULD NOT CONFLICT OR BE INCONSISTENT WITH CEQA GUIDELINES SECTION 15064.3, SUBDIVISION (B).

Less than Significant Impact. As described previously, State CEQA Guidelines Section 15064.3(b) focuses on determining the significance of VMT-related transportation impacts. The City of Santa Ana Traffic Impact Study Guidelines contain screening thresholds to assess whether a project has the potential to result in an impact and further VMT analysis is required. If none of the screening criteria are met, then the project would require VMT modeling to determine if the VMT thresholds are exceeded.

The applicability of each screening criteria identified in the City of Santa Ana Traffic Impact Study Guidelines in comparison to the proposed Project is discussed below.

Local Serving Projects: The proposed Project does not meet the screening threshold for a local-serving project because it would develop more than 50,000 SF of retail uses.

Projects with less than 110 Trips: As shown in Table 5.13-2, the proposed Project would generate approximately 7,328 net daily trips at full buildout of the Specific Plan. Therefore, the proposed Project would not meet the less than 110 trip screening threshold.

TPA and High Quality Transit Area Project: As described previously and shown on Figure 5.13-2, the City of Santa Ana Traffic Impact Study Guidelines Appendix A identifies that the Project site is located within a TPA. The Project area is served by eight OCTA Routes, including Routes 55, 57, 76, 86, 150, and 553. Specifically, OCTA Route 57 serves as a high-quality bus stop with headways of 15 minutes or less during weekday peak commute hours.

In addition, as shown on Figure 5.13-3, SCAG identifies that the Project site is within a High Quality Transit Area. Consistent with general guidance from OPR, and CEQA Guidelines Section 15064.3(b)(1), a project that is located within a TPA or a High Quality Transit Area is presumed to have a less than significant impact to VMT. Additionally, the proposed Project is consistent with the land uses in the RTP/SCS, which assumed the site would be constructed as an urban, mixed-use development that would reduce area VMT, consistent with the TPA designation.

The 2020-2045 RTP/SCS recognizes that development within Priority Growth Areas, including TPAs, supports mode shifts and shortened trip distances. The Project site is within an identified Priority Growth Area pursuant to the 2020-2045 RTP/SCS based on its location within a SCAG High Quality Transit Area. The Project proposes land uses consistent with those permitted by the GPU, which is consistent with the land uses assumed for the Project site as part of the RTP/SCS. In addition, as shown in Table 5.8-1, the proposed Project would be consistent with the policies set forth in the RTP/SCS. Therefore, as the proposed Project is located within both a TPA and a High Quality Transit Area, and would be developed consistent with the SCAG RTP/SCS, the proposed Project would meet this screening threshold; and impacts would be less than significant.

Appendix C of the City of Santa Ana Traffic Impact Study Guidelines shows areas in the City that cannot be screened out by being located in a TPA or low-VMT generating area and identifies locations where VMT analysis would be required. The Project site is not located within any of the areas identified in Appendix C, which confirms that redevelopment of the Project site, pursuant to the GPU is presumed to have a less than significant impact to VMT.

Low-VMT Generating TAZ: Per the City of Santa Ana Traffic Impact Study Guidelines, the Project site is not located in a low-VMT Generating TAZ as the Project site TAZ's VMT per service population is higher than the Orange County Regional Average. As such, the proposed Project would not meet the low VMT TAZ screening threshold.

Overall, pursuant to the City's VMT screening criteria and guidance from OPR and CEQA Guidelines Section 15064.3(b)(1), based on the site's location within a High Quality Transit Area and a TPA with proximity to a high-quality bus stop on Route 57, the proposed Project would result in less than significant impacts related to VMT. Therefore, proposed Project impacts would be consistent with those identified in the GPU FEIR, which determined that the infill and redevelopment pursuant to the GPU land use plan would result in less than significant impacts related to VMT.

IMPACT TR-3: THE PROJECT WOULD NOT SUBSTANTIALLY INCREASE HAZARDS DUE TO A GEOMETRIC DESIGN FEATURE (E.G., SHARP CURVES OR DANGEROUS INTERSECTIONS) OR INCOMPATIBLE USES (E.G., FARM EQUIPMENT).

Less than Significant Impact.

Construction

The Specific Plan proposes redevelopment of the site over three phases that would last approximately ten years, with construction of Phase 1 beginning in 2026 and completion of Phase 3 in 2036. As shown in Figure 3-7, *Proposed Project Phasing*, the Phase 1 area is located south of Callen's Common and extends to Sunflower Avenue. Phase 2 and Phase 3 are located north of Callen's Common and extend to MacArthur Boulevard. The Phase 2 area is approximately one-third of the northern portion of the Project site and is bordered by MacArthur Boulevard to the north, Callen's Common to the south, Bristol Street to the east, and Phase 3 of the proposed Project to the west. The Phase 3 area is bordered by MacArthur Boulevard to the north, Callen's Common to the south, Phase 2 to the east, and South Plaza Drive to the west. Phase 1 would be operational while Phase 2 and Phase 3 are under construction and Phase 1 and Phase 2 would be operational while Phase 3 is under construction. As such, during construction of the latter two phases of development, the proposed Project could result in incompatible uses in relation to conflict between passenger vehicles from site operations and construction vehicles, such as haul trucks and vendor trucks. However, construction barriers and fencing would separate the operational and construction areas of the site; and construction vehicles would have separate driveway entrances and circulation patterns that would be specified by the City's Building Safety Division in construction permitting pursuant to California fire, access, and safety code requirements.

Also, construction worker vehicles, haul trucks, and vendor trucks, would be staged on the portion of the Project site under construction for the duration of the construction period. As part of the grading plan and building plan review processes, City permits would require appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures and measures to properly route heavy-duty construction vehicles entering and leaving the site (as applicable). As a result, impacts related to vehicular circulation design features and incompatible uses during construction of the proposed Project would be less than significant. Therefore, proposed Project impacts would be consistent with those identified in the GPU FEIR, which were determined to be less than significant.

Operation

Vehicular access to the Project site would be provided via four unsignalized right-turn only driveways along South Plaza Drive, one unsignalized full-access driveway along South Plaza Drive, one signalized driveway on South Plaza Drive, two unsignalized right-turn only driveways along MacArthur Boulevard, three unsignalized right-turn only driveways along Bristol Street, two signalized driveways on Bristol Street, two unsignalized right-turn only driveways along Sunflower Avenue, and one signalized driveway along Sunflower Avenue. Additionally, one of the driveways on Bristol Street would be designated for service access only to service the truck deliveries for the grocery store. Proposed Project driveways are shown in Figure 5.13-1, *Proposed Project Driveways*.

Onsite traffic signing and striping would also be implemented in conjunction with detailed construction plans with implementation of the Related Bristol Specific Plan. Additionally, sight distance at each development site's access point would be reviewed with respect to City traffic engineering standards at the time of final grading, landscape, and street improvement plan reviews. Further, roadways adjacent to a development site, site access points, and site-adjacent intersections would be constructed to be consistent with the identified roadway classifications and respective cross-sections in accordance with the Circulation Plan (see Figure 3-12 in Chapter 3.0, *Project Description*). The roadway improvements, restriping, and related street, and bikeway improvements of Bristol Street, MacArthur Boulevard, and Sunflower Avenue, as discussed in Impact TR-1, would be conducted in conformance with City design standards for roadway improvements. Compliance with existing regulations would be ensured through the City's traffic engineering review and construction permitting process.

Further, the proposed Project's commercial and residential mixed uses with roadways, sidewalks, and bicycle routes would be similar to surrounding uses and would not result in incompatible vehicular uses that could increase hazards. A driveway is designated for truck deliveries, which would reduce the potential for incompatible vehicle uses between trucks and resident or visitor passenger vehicles onsite during operation. As a result, impacts related to hazardous vehicular circulation design features and incompatible uses during operation of the proposed Project would be less than significant. Therefore, Project impacts would be consistent with those identified in the GPU FEIR, which were determined to be less than significant.

IMPACT TR-4: THE PROJECT WOULD NOT RESULT IN INADEQUATE EMERGENCY ACCESS.

Less than Significant Impact.

Construction

The Specific Plan proposes redevelopment of the site over three phases that would last approximately ten years, with construction of Phase 1 beginning in 2026 and completion of Phase 3 in 2036. As shown in Figure 3-7, *Proposed Project Phasing*, the Phase 1 area is located south of Callen's Common and extends to Sunflower Avenue. Phase 2 and Phase 3 are located north of Callen's Common and extend to MacArthur Boulevard. The Phase 2 area is approximately one-third of the northern portion of the Project site and is bordered by MacArthur Boulevard to the north, Callen's Common to the south, Bristol Street to the east, and Phase 3 of the proposed Project to the west. The Phase 3 area is bordered by MacArthur Boulevard to the north, Callen's Common to the south, Phase 2 to the east, and Plaza Drive to the west. Based on construction timing of the three development phases, Phase 1 would be operational while Phase 2 and Phase 3 are under construction and Phase 1 and Phase 2 would be operational while Phase 3 is under construction. The proposed construction activities, including equipment and supply staging and storage, would occur within and adjacent to the Phase area that is under construction and would not restrict access of emergency vehicles to the Project site or adjacent areas. Construction barriers and fencing would separate the operational and construction areas of the site; and construction vehicles would have separate driveway entrances and circulation patterns that would be specified by the City's Building Safety Division in construction permitting pursuant to California fire, access, and safety code requirements.

Driveway plans and street improvement plans for each individual development phase (Phases 1, 2, and 3) would be reviewed by the City Building Safety Division to ensure that emergency vehicles are able to access earlier development phases that become operational while later phases are under construction. The roadway improvements and installation of driveways that would be implemented during construction of the proposed Project could require the temporary closure of travel lanes, but full roadway closure and traffic detours are not expected to be necessary. Also the construction activities would be required to implement measures to facilitate the passage of persons and vehicles through/around any required temporary road restrictions and ensure the safety of passage in accordance with Section 503 of the California Fire Code (Title 24, California

Code of Regulations, Part 9) and the City of Santa Ana Fire Code, included as Municipal Code Chapter 14, which would be ensured through the City's construction permitting process. Thus, implementation of the proposed Project through the City's permitting process would ensure existing regulations are adhered to and would reduce potential construction related emergency access impacts to a less than significant level. Therefore, Project impacts related to emergency access during construction would be consistent with those identified in the GPU FEIR, which were determined to be less than significant.

Operation

As described previously, vehicular access to the Project site would be provided via four unsignalized right-turn only driveways along South Plaza Drive, one unsignalized full-access driveway along South Plaza Drive, one signalized driveway along South Plaza Drive, two unsignalized right-turn only driveways along MacArthur Boulevard, three unsignalized right-turn only driveways along Bristol Street, two signalized driveways on Bristol Street, two unsignalized right-turn only driveways along Sunflower Avenue, and one signalized driveway along Sunflower Avenue, as shown on Figure 5.13-1, *Proposed Project Driveways*. Additionally, one of the driveways on Bristol Street would be designated for service access only for truck deliveries for the grocery store.

As described previously, these driveways would provide adequate and safe circulation to and from the Project site and would provide several routes for emergency responders to access different portions of the Project site and surrounding areas. The City's development and permitting review process would ensure that all access and circulation to and through the site would meet California Fire Code Requirements included as Municipal Code Chapter 14. Because the proposed Project is required to comply with all applicable City codes, as verified by the City and OCFA potential impacts related to inadequate emergency access would be less than significant. Therefore, Project impacts related to emergency access would be consistent with those identified in the GPU FEIR, which were determined to be less than significant pursuant to compliance with existing regulations.

5.13.7 CUMULATIVE IMPACTS

The cumulative traffic study area for the proposed Project includes the City of Santa Ana and the information utilized in this cumulative analysis is based on the potential to combine with impacts from projects in the vicinity of the proposed Project, as discussed in Table 5-1, and projections contained within the Santa Ana GPU and Orange County Transportation Analysis Model (OCTAM).

Circulation System

The evaluation of Impact TR-1 concluded that the proposed Project would connect to the existing circulation system and implement the City's traffic engineering design standards. In addition, the proposed Project would provide 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. Because the proposed Project would enhance facilities consistent with existing plans, it would not result in a cumulatively considerable impact. In addition, cumulative development in the City and surrounding jurisdictions would be subject to site-specific reviews, including reviews of sidewalk, bike lane, and bus stop designs that would not allow potential cumulatively considerable impacts related to alternative transportation. Therefore, the proposed Project would not cumulatively combine with other projects to result in impacts.

Vehicle Miles Traveled

The cumulative traffic study area for the proposed Project includes the City of Santa Ana. Pursuant to the City's Traffic Impact Study Guidelines, a cumulative impact could occur if the proposed Project has the potential to increase the average VMT per service population of the City and is based on the projections

provided in the City's GPU and GPU FEIR. As detailed previously, the Project site is located within a SCAG High Quality Transit Area and a Transit Priority Area, adjacent to seven OCTA bus stops, including a high quality bus stop for OCTA Route 57. Based on City, OPR, and CEQA Guidelines screening criteria, the proposed Project would not result in increasing the average VMT per service population of the City. Therefore, VMT impacts from the proposed Project would not be cumulatively considerable. In addition, as detailed previously, the proposed Project would implement a mix of complementary onsite uses that would reduce the need for traveling outside of the Project site and would implement a multi-modal circulation system of sidewalks, bicycle lanes, and transit that is intended to reduce VMT, which would also result in a less than cumulatively significant impact related to VMT. This finding is consistent with the GPU FEIR determination that VMT impacts would be less than significant from buildout of the GPU land use plan.

Design and Emergency Access Hazards

The evaluation of Impact TR-3 and Impact TR-4 concluded that the proposed Project would not result in impacts related to incompatible uses, hazards due to roadway design, or emergency access. The proposed circulation layout would be required to be installed in conformance with City design standards that would be ensured through the City's development permitting process to provide that no potentially hazardous design features or inadequate emergency access would be introduced by the proposed Project that could combine with potential hazards from other nearby projects. As the Project's proposed improvements would be implemented in compliance with City traffic engineering standards and OCFA design standards, it would not result in an impact that could become cumulatively considerable. In addition, cumulative development in the City and surrounding jurisdictions 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 that limit the potential of other projects to result in cumulatively considerable design hazards. Therefore, potential impacts related to circulation design features and emergency access would not be cumulatively considerable.

5.13.8 EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS, OR POLICIES

- SCAG 2020 - 2045 Regional Transportation Plan/Sustainable Communities Strategy
- City of Santa Ana General Plan Update Mobility Element
- City of Santa Ana Municipal Code

5.13.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements, Impacts TR-1 through TR-4 would be less than significant.

5.13.10 MITIGATION MEASURES

GPU FEIR Mitigation Measures

No mitigation measures were included.

Proposed Specific Plan Project Mitigation Measures

No new mitigation measures are required for the proposed Project.

5.13.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related Impacts TR-1 through TR-4 would be less than significant.

REFERENCES

- City of Santa Ana Active Transportation Plan. June 2019. Accessed:
https://issuu.com/ktua/docs/santa_ana_atp_final_report_-_june_2
- City of Santa Ana General Plan Update. April 2022. Accessed: <https://www.santa-ana.org/general-plan-documents/>
- City of Santa Ana Municipal Code. Accessed: https://library.municode.com/ca/santa_ana
- City of Santa Ana Traffic Impact Study Guidelines. Accessed:
<https://storage.googleapis.com/proudcity/santaanaca/uploads/2022/03/Santa-Ana-VMT-TIS-Guidelines.pdf>
- Vehicle Miles Traveled (VMT) Screening Assessment for the Proposed Related Bristol Project, Santa Ana. June 2023. Prepared by Linscott Law & Greenspan. (Appendix O)
- City of Santa Ana General Plan Update Final Recirculated Program Environmental Impact Report. October 2021. Accessed: <https://www.santa-ana.org/general-plan-environmental-documents/>
- SCAG. High Quality Transit Areas (Plan Year 2045). Accessed: <https://gisdata-scag.opendata.arcgis.com/datasets/SCAG::high-quality-transit-areas-hqta-2045-scag-region/explore>

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5.14 Tribal Cultural Resources

5.14.1 INTRODUCTION

This section addresses potential impacts to tribal cultural resources associated with implementation of the proposed Project. Information within this section is based on the following:

- *City of Santa Ana General Plan Update*
- *City of Santa Ana General Plan Update FEIR*
- *City of Santa Ana Municipal Code*
- *Archaeological Resources Assessment (Appendix E)*
- *Geotechnical Investigation (Appendix G)*

Additionally, part of this analysis is based upon Project-specific coordination and consultation with California Native American tribes that are traditionally and culturally affiliated with the Project region. In accordance with Public Resources Code Section 15120(d), certain information and communications that disclose the location of archaeological sites and sacred lands are allowed to be exempt from public disclosure.

5.14.2 REGULATORY SETTING

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 the California Environmental Quality Act (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 Native American Heritage Commission (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. The Tribal Consultation Guidelines: Supplement to General Plan Guidelines (OPR, 2005), 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).

Because the proposed Project includes approval of a 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 CEQA to consider "tribal cultural values, as well as scientific and archaeological values when determining impacts and mitigation." Public Resources Code (PRC) Section 21074(a) defines "tribal cultural resources" (TCRs) as "[s]ites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" that are either "[i]ncluded 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. PRC Section 21074(b), (c). The lead agency may also in its discretion treat a resource as a TCR 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 area consultation on CEQA documents prior to submitting an EIR in order to protect TCRs. 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 TCR, 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 TCRs and discuss feasible alternatives or mitigation to avoid or lessen an impact.

California Health and Safety Code, Section 7050.5

This code requires that if human remains are discovered on a project site, disturbance of the site must halt and remain halted until the coroner has conducted an investigation into 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 recognizes or has reason to believe the human remains are those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC.

City of Santa Ana General Plan

The following goals and policies in the General Plan Update Historic Preservation Element are relevant to the proposed Project:

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.

POLICY HP 1.7 Encourage participation in oral history programs to capture Santa Ana's historic and cultural narrative.

POLICY HP 2.3 Support efforts to identify and commemorate historic structures and sites and historically sensitive areas in Santa Ana through murals, plaques, and educational exhibits.

POLICY 3.1 Maintain a comprehensive program to inventory and preserve historic and cultural resources, including heritage landscape and trees.

5.1 4.3 ENVIRONMENTAL SETTING**Native American Tribes**

According to available ethnographic maps, ethnographic data, and Native American input, the City of Santa Ana lies within an area on the border of the traditional lands of the Gabrieleño and the Juaneño/Acjachemen. As such, both are discussed below.

Gabrieleño

The traditional lands of the Gabrieleño at the time of Spanish contact covers much of current-day Los Angeles, San Bernardino, and Orange Counties, which includes the Project site in the City of Santa Ana. The southern region of this cultural area is bound by Aliso Creek, the eastern region is located east of San Bernardino along the Santa Ana River, the northern region includes the San Fernando Valley, and the western region includes portions of the Santa Monica Mountains. The Gabrieleño also occupied several Channel Islands including Santa Barbara Island, Santa Catalina Island, San Nicholas Island, and San Clemente Island. Because of their access to certain resources, including a steatite source from Santa Catalina Island, this group was among the wealthiest and most populous aboriginal groups in Southern California. Trade of materials and resources controlled by the Gabrieleño extended as far north as the San Joaquin Valley, as far east as the Colorado River, and as far south as Baja California.

The Gabrieleño lived in permanent villages and smaller, resource-gathering camps occupied at various times of the year depending upon the seasonality of the resource. Larger villages comprised of several families

or clans, while smaller, seasonal camps typically housed smaller family units. Gabrieleño houses were domed, circular structures made of thatched vegetation. Houses varied in size, and could house from one to several families. Sweathouses—semicircular, earth covered buildings—were public structures used in male social ceremonies. Other structures included menstrual huts and a ceremonial structure called a yuvar, an open-air structure built near the chief's house.

Hunting implements included wooden clubs, sinew-backed bows, slings, and throwing clubs. Maritime implements included rafts, harpoons, spears, hook and line, and nets. A variety of other tools included deer scapulae saws, bone and shell needles, bone awls, scrapers, bone or shell flakers, wedges, stone knives and drills, metates, mullers, manos, shell spoons, bark platters, and wooden paddles and bowls. Baskets were made from rush (*Juncus sp.*), deer grass (*Muhlenbergia rigens*), and skunkbush (*Rhus trilobata*).

The social structure of the Gabrieleño is little known; however, there appears to have been at least three social classes: 1) the elite, which included the rich, chiefs, and their immediate family; 2) a middle class, which included people of relatively high economic status or long-established lineages; and 3) a class of people that included most other individuals in the society. Villages were politically autonomous units comprised of several lineages. During times of the year when certain seasonal resources were available, the village would divide into lineage groups and move out to exploit them, returning to the village between forays.

Each lineage had its own leader, with the village chief coming from the dominant lineage. Several villages might be allied under a paramount chief. Chiefly positions were of an ascribed status, most often passed to the eldest son. Chiefly duties included providing village cohesion, leading warfare and peace negotiations with other groups, collecting tribute from the village(s) under his jurisdiction, and arbitrating disputes within the village(s). The status of the chief was legitimized by his safekeeping of the sacred bundle, a representation of the link between the material and spiritual realms and the embodiment of power. Shamans were leaders in the spirit realm. The duties of the shaman included conducting healing and curing ceremonies, guarding of the sacred bundle, locating lost items, identifying and collecting poisons for arrows, and making rain. Marriages were made between individuals of equal social status and, in the case of powerful lineages, marriages were arranged to establish political ties between the lineages. Men conducted the majority of the heavy labor, hunting, fishing, and trading with other groups. Women's duties included gathering and preparing plant and animal resources, and making baskets, pots, and clothing.

Rivers and streams were used as trading routes and travel routes as they provided resources. Thus, many tribal cultural resources are found along rivers, streams, and other known travel or trade routes. The Project site does not include, and is not located near a river, stream, or identified corridor that could have been a travel or trade route.

Juaneño/Acjachemen

The traditional lands of the Juaneño Band of Mission Indians, Acjachemen Nation covered Orange County and parts of San Diego, Los Angeles, and Riverside Counties. The Acjachemen Nation refers to the indigenous people native to the area. Their population is thought to have been upwards of 3,500 before contact with the Spanish. The Juaneño name came about once the local peoples were administered by Mission San Juan Capistrano. Native population within the Mission has been recorded to reach over 1,000 residents. Cremation and burial of the dead were practiced in their society.

The Juaneño resided in permanent, well-defined villages with associated seasonal camps housing between 35 to 300 people. Smaller villages were primarily comprised of a single lineage, while larger villages were a combination of the dominant clan and multiple families. In larger villages, the temple was the center of the town, with housing for the captain or chief nearby. Additionally, residence within villages were typically patrilocal. Each village was politically independent while maintaining contact with other groups in the region through economic, religious, and social networks.

Social structure was clearly defined into three hierarchies: 1) an elite class of chiefly families, lineage heads, and ceremonial specialists; 2) a middle class of established and successful families; and 3) the lower class of wandering peoples and war captives. The *Nota*, or the hereditary village chief, held authority over religious, economic, and warfare powers. Aiding the *Nota* was a council of elder assistants, ritual specialists, and shamans called the *puuplem*. These people, also chosen within the dominant lineage, contributed to community decisions and governing religious duties.

A majority of the traditional diet was comprised of plant foods; of those, acorns were the staple food source. As a result, villages were typically located near abundant water to leach milled acorn products. Communities closer to the coast relied heavily on fish and marine animal resources, while terrestrial game accounted for the smallest portion of their diet.

Tribal Cultural Resources

A records search of the California Historical Resources Information System found four archaeological resources that were previously recorded within 0.5 mile of the Project site. Of these resources, one is a prehistoric site and three historic-period archaeological isolates. The prehistoric site is associated with a prehistoric shell scatter, discovered in 1999, which is located 0.5-mile southeast of the Project site. According to the Archaeological Resource Assessment prepared for the proposed Project, the site is sensitive for prehistoric archaeological resources. However, previous agricultural activities and current development within the site have reduced sensitivity for intact subsurface archaeological deposits at depths less than 18 inches below ground surface.

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. The City requested a Sacred Lands File (SLF) Search from the NAHC on January 17, 2023, and received the results on February 2, 2023. The SLF returned negative results, indicating that no known tribal resources are located in the Project site.

5.14.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, that considers the significance of the resource to a California Native American tribe.

5.14.5 METHODOLOGY

A Sacred Lands File search was requested from the NAHC on January 17, 2023. The NAHC responded on February 2, 2023, stating that there are no known/known sacred lands within 0.5 mile of the Project area, and requested that 20 Native American tribes be contacted for further information regarding the general area vicinity.

In compliance with SB 18, AB 52, and the NAHC request, on January 23, 2023 and February 2, 2023, the City sent letters to the following Native American tribes that may have knowledge regarding tribal cultural resources in the Project vicinity.

- Campo Band of Diegueno Indians
- Ewiiapaayp Band of Kumeyaay Indians
- Gabrieleño Band of Mission Indians – Kizh Nation
- Gabrieleño/Tongva San Gabriel Band of Mission Indians
- Gabrieleño /Tongva Nation
- Gabrieleño Tongva Indians of California Tribal Council
- Gabrieleño -Tongva Tribe
- Jamul Indian Village
- Juaneño Band of Mission Indians Acjachemen Nation – Belardes
- Juaneño Band of Mission Indians Acjachemen Nation 84A
- La Posta Band of Diegueno Mission Indians
- Manzanita Band of Kumeyaay Nation
- Mesa Grande Band of Diegueno Mission Indians
- Pala Band of Mission Indians
- San Fernando Band of Mission Indians
- San Pasqual Band of Diegueno Mission Indians
- Santa Rosa Band of Cahuilla Indians
- Soboba Band of Luiseno Indians
- Sycuan Band of Kumeyaay Nation
- Viejas Band of Kumeyaay Indians

Two responses were received. The Gabrieleño Band of Mission Indians – Kizh Nation responded on February 22, 2023. Consultation with the Gabrieleño Band of Mission Indians – Kizh Nation occurred via email and the Tribe provided requested mitigation measures. The Juaneño Band of Mission Indians Acjachemen Nation – Belardes responded on February 9, 2023. The Juaneño Band of Mission Indians Acjachemen Nation – Belardes provided an email on April 18, 2023 stating the Tribe has no concerns regarding the proposed Project and concluded consultation.

5.14.6 ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR addressed tribal cultural resource impacts on pages 5.17-13 through 5.17-15. The GPU FEIR describes that the Sacred Land File search for the GPU yielded positive results, indicating that known tribal resources exist within the City of Santa Ana. Further, a records search conducted at the South Central Coastal Information Center (SCCIC) of the California Historical Resources Inventory System (CHRIS) 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. The GPU FEIR also describes that the City includes many locations that would have been favorable for prehistoric Native American occupation, and that while the City is urbanized, buried resources may remain in areas of minimal ground disturbance. Additionally, the GPU FEIR describes that the Gabrieleño Band of Mission Indians – Kizh Nation identified sensitive areas within the City, and that buildout of the GPU may cause a substantial adverse

change in the significance of tribal cultural resources. Thus, the GPU FEIR determined that implementation of Mitigation Measures CUL-4 through CUL-7 would be required to reduce impacts relating to tribal cultural resources to less than significant.

Proposed Specific Plan Project

IMPACT TCR-1: THE PROJECT WOULD NOT CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF A TRIBAL CULTURAL RESOURCE 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).

Less than Significant Impact with Mitigation Incorporated. SB 18 and AB 52 require meaningful consultation between lead agencies and California Native American tribes regarding potential impacts on TCRs. As described above, TCRs are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either eligible or listed in the California Register of Historical Resources or local register of historical resources (PRC Section 21074). As outlined above, the City sent letters to 20 Native American representatives identified by NAHC, notifying them of the proposed Project in accordance with SB 18 and AB 52.

The City consulted with each tribe that requested consultation. During the course of the tribal consultation process, no Native American tribe provided the City with substantial evidence indicating that tribal cultural resources, as defined in PRC Section 21074, are present on the Project site or have been found previously on the Project site. However, 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 such, Project-specific Mitigation Measures TCR-1 through TCR-3 would be implemented 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 by Project construction activities. With implementation of GPU FEIR Mitigation Measures CUL-4 and CUL-6 and Project-specific Mitigation Measures TCR-1 through TCR-3, impacts to tribal cultural resources would be less than significant. Therefore, impacts related to Project buildout of the site would be consistent with the impact conclusions set forth in the GPU FEIR, which determined that impacts related to tribal cultural resources would be less than significant with the incorporation of mitigation.

IMPACT TCR-2: THE PROJECT WOULD NOT CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF 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 THE PUBLIC RESOURCES CODE SECTION 5024.1, THAT CONSIDERS THE SIGNIFICANCE OF THE RESOURCES TO A CALIFORNIA NATIVE AMERICAN TRIBE.

Less than Significant Impact with Mitigation Incorporated. As described in the previous response, the Project site has been heavily disturbed for construction of the existing buildings and infrastructure. The proposed Project involves excavation; however, as discussed in Impact TCR-1 above, no substantial evidence exists that TCRs are present in the Project site. Although, no TCRs have been identified, during the SB 18/AB 52 consultation, the Gabrieleño Band of Mission Indians – Kizh Nation stated that the proposed Project lies within its ancestral tribal territory within a potentially sensitive area. Therefore, to avoid potential adverse effects to tribal cultural resources, Project-specific Mitigation Measures TCR-1 through TCR-3 have been

included to provide for Native American resource sensitivity training, monitoring, and to prescribe activities should any inadvertent discoveries of tribal cultural resources be unearthed by Project construction activities.

Additionally, as described previously, California Health and Safety Code, Section 7050.5 requires that if human remains are discovered in the Project site, disturbance of the site shall halt and remain halted until the coroner has conducted an investigation. If the coroner determines that the remains are those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC. Therefore, with implementation of GPU FEIR Mitigation Measures CUL-4 and CUL-6 and Project-specific Mitigation Measures TCR-1 through TCR-3 and the existing regulations, impacts to TCRs would be less than significant. Therefore, impacts related to Project buildout of the site would be consistent with the impact conclusions set forth in the GPU FEIR, which determined that impacts related to tribal cultural resources would be less than significant with the incorporation of mitigation.

5.14.7 CUMULATIVE IMPACTS

The cumulative study area for tribal cultural resources includes the Southern California region, which contains the same general tribal historic setting of the Gabrieleño and Juaneno Tribes, as detailed previously in Section 5.14.3, *Environmental Setting*. Other projects in the vicinity of the proposed Project would involve ground disturbances that could reveal buried TCRs.

Cumulative impacts to TCRs would be reduced by compliance with applicable regulations and consultations required by SB 18 and AB 52. As described above, the Project site and vicinity is not known to contain TCRs; however, Mitigation Measure TCR-1 would be implemented to ensure that impacts would not occur in the case of an inadvertent discovery of a potential TCR. This mitigation measure would ensure that the proposed Project would not contribute to a cumulative loss of TCRs. Therefore, cumulative impacts would be less than significant.

5.14.8 EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS, OR POLICIES

- California Government Code Sections 5097.9-5097.99
- California Health and Safety Code Section 7050.5
- California Public Resources Code Sections 21073 et seq. (AB 52)

5.14.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements, Impacts TCR-1 and TCR-2 would be **potentially significant**.

5.14.10 MITIGATION MEASURES

GPU FEIR Mitigation Measures

CUL-4 For projects with ground disturbance—e.g., grading, excavation, trenching, boring, or demolition that extend below the current grade—prior to issuance of any permits required to conduct ground-disturbing activities, the City shall require an Archaeological Resources Assessment be conducted under the supervision of an archaeologist that meets the Secretary of the Interior's Professionally Qualified Standards in either prehistoric or historic archaeology.

Assessments shall include a California Historical Resources Information System records search at the South Central Coastal Information Center and of the Sacred Land Files maintained by the Native American Heritage Commission. The records searches will determine if the proposed project area has been previously surveyed for archaeological resources, identify and characterize the results of previous cultural resource surveys, and disclose any cultural resources that have been recorded and/or evaluated. If unpaved surfaces are present within the project area, and the entire project area has not been previously surveyed within the past 10 years, a Phase I pedestrian survey shall be undertaken in proposed project areas to locate any surface cultural materials that may be present.

Proposed Project Applicability: Mitigation Measure CUL-4 is applicable to the proposed Project and an Archaeological Resources Assessment has been prepared and is included in Appendix E.

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 onsite 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.

Proposed Project Applicability: Mitigation Measure CUL-6 is applicable to the proposed Project as determined by the Archaeological Resources Assessment Report (Appendix E) because the site has been determined to be sensitive for archaeological resources. This measure will be included in the Mitigation Monitoring and Reporting Program (MMRP) for the proposed Project.

Proposed Specific Plan Project Mitigation Measures

Mitigation Measure 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 TCRs, 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 TCRs.

Mitigation Measure TCR-2: Unanticipated Discovery of Tribal Cultural Resource Objects (Non-Funerary/Non-Ceremonial)

- A. Upon discovery of any TCRs, 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 TCR has been fully assessed by the Kizh monitor in consultation with a qualified archaeologist. The Kizh will recover and retain all discovered TCRs 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.

Mitigation Measure TCR-3: Unanticipated Discovery of Human Remains and Associated Funerary or Ceremonial Objects

- A. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, 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 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 California 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.

5.14.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The mitigation measures and existing regulatory programs described previously would reduce potential impacts associated with TCRs for Impacts TCR-1 and TCR-2 to a level that is less than significant. Therefore, no significant unavoidable adverse impacts related to TCRs would occur.

REFERENCES

City of Santa Ana General Plan Update. April 2022. Accessed: <https://www.santa-ana.org/general-plan-documents/>

City of Santa Ana Municipal Code. Accessed: https://library.municode.com/ca/santa_ana

Related Bristol, City of Santa Ana, California Archaeological Resources Assessment Report. January 2023b. Prepared by ESA. (Appendix E)

City of Santa Ana General Plan Update Final Recirculated Program Environmental Impact Report. October 2021. Accessed: <https://www.santa-ana.org/general-plan-environmental-documents/>

Preliminary Investigation Report Related Bristol Project. August 2022. Prepared by Group Delta Consultants, Inc. (Appendix G)

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5.15 Utilities and Service Systems

5.15.1 INTRODUCTION

This section of the Supplemental EIR evaluates the potential effects on utilities and service systems from implementation of the proposed Project by identifying anticipated demand and existing and planned utility availability. This includes water supply and infrastructure, wastewater, drainage, and solid waste. Electric power, natural gas, telecommunications, and renewable energy resources are described in Section 5.3, *Energy*.

Water supply and infrastructure capacity information in this section is based on the following:

- *City of Santa Ana General Plan Update*
- *City of Santa Ana General Plan Update FEIR*
- *City of Santa Ana Municipal Code*
- *City of Santa Ana 2020 Urban Water Management Plan*
- *City of Santa Ana 2018 Storm Drain Master Plan*
- *Preliminary Geotechnical Investigation Report (Appendix G),*
- *Preliminary Hydrology Report (Appendix L),*
- *Preliminary Water Quality Management Plan (Appendix M),*
- *Water Supply Assessment (Appendix P),*
- *Sewer Analysis Report (Appendix Q),*
- *Storm Drain Master Plan Drainage Assessment (Appendix R)*

Because CEQA focuses on physical environmental effects, this section analyzes whether increases in demand for water, wastewater, stormwater drainage, and solid waste utilities that would result from the proposed Project would result in significant adverse physical environmental effects. For example, physical changes in the environment resulting from the construction of new facilities or an expansion of existing wastewater facilities could constitute a significant impact under CEQA.

5.15.2 WATER

5.15.2.1 WATER REGULATORY SETTING

Safe Drinking Water Act

The United States Environmental Protection Agency (U.S. EPA) administers the Safe Drinking Water Act, which is the primary federal law that regulates the quality of drinking water and establishes standards to protect public health and safety. The State Water Resources Control Board, Division of Drinking Water (DDW) implements the requirements of the Act and oversees public water system quality statewide. USEPA establishes legal drinking water standards for contaminants that could threaten public health.

California Urban Water Management Planning Act

Section 10610 of the California Water Code established the California Urban Water Management Planning Act (CUWMPA), requires urban water suppliers to initiate planning strategies to ensure an appropriate level of reliability in its water service. CUWMPA states that every urban water supplier that provides water to 3,000 or more customers, or that annually provides more than 3,000 acre-feet of water service, should make every effort to ensure the appropriate level of reliability in its water service to meet the needs of its various

categories of customers during normal, dry, and multiple-dry years. The CUWMPA describes the contents of UWMP's as well as methods for urban water suppliers to adopt and implement the plans. As described below, the City of Santa Ana has an updated 2015 UWMP that addresses water supply and demand through 2040.

Senate Bill 610

Senate Bill (SB) 610 requires public urban water suppliers with 3,000 or more service connections to identify existing and planned sources of water for planned developments of a certain size. It further requires the public water system to prepare a specified water supply assessment (WSA) for projects that meet the following criteria:

- a) A proposed residential development of more than 500 dwelling units;
- b) A proposed shopping center employing more than 1,000 persons or having more than 500,000 SF of floor space;
- c) A commercial office building employing more than 1,000 persons or having more than 250,000 SF of floor space;
- d) A hotel or motel, or both, with more than 500 rooms;
- e) An industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 SF of floor area; and
- f) A mixed-use project that includes one or more of the projects above.

The components of a WSA include existing water demand, future water demand by the project, and must ensure that water is available for the project during normal years, a single dry year, and multiple dry years during a 20-year future projection period. The WSA must also describe whether the project's water demand is accounted for in the water supplier's Urban Water Management Plan (UWMP) Supplies of water for future water supply must be documented in the WSA.

Senate Bill 221

SB 221 requires the local water provider to provide "written verification" of "sufficient water supplies" to serve the project. SB 221 applies only 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. Sufficiency under SB 221 differs from SB 610 in that it is determined by considering the availability of water over the past 20 years; the applicability of any urban water shortage contingency analysis prepared per Water Code Section 10632; the reduction in water supply allocated to a specific use by an adopted ordinance; and the amount of water that can be reasonably relied upon from other water supply projects, such as conjunctive use, reclaimed water, water conservation, and water transfer. In most cases, the WSA prepared under SB 610 meets the requirement for proof of water supply under SB 221.

Senate Bill 1262

SB 1262, which amends Section 66473.7 of the Government Code and Section 10910 of the Water Code 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.
- If a groundwater sustainability agency has adopted a groundwater sustainability plan or has an approved alternative, a copy of that alternative or plan.

As described below, the City obtains a majority of its water supply from the groundwater basin. Thus, this additional information is provided in the Project specific WSA (Appendix P, herein).

CALGreen Building Code

California Code of Regulations Title 24, Part 11, establishes the California Green Building Code or CALGreen. The CALGreen Code is updated every three years and sets forth water efficiency standards (i.e., maximum flow rates) for all new plumbing and irrigation fittings and fixtures. Chapter 8 - Article XVI of the Santa Ana Municipal Code incorporates the California Green Building Standards Code by reference.

City of Santa Ana General Plan Update

The Santa Ana General Plan Update includes the following goals and policies that are related to water supply and the proposed Project.

Economic Prosperity Element

POLICY 2.9 Collaborate with utility providers and regional partners to encourage business and industry to improve performance in energy efficiency, water conservation, and waste reduction.

Public Services Element

POLICY 3.7 Maintain emergency connections with local and regional water suppliers in the event of delivery disruption.

POLICY 3.8 Promote cost cost-effective conservation strategies and programs that increase water use efficiency.

POLICY 3.12 Maintain and upgrade sewer and water infrastructure through impact fees from new development and exploring other funding sources.

Conservation Element

POLICY 4.1 Encourage and educate residents, business owners, and operators of public facilities to use water wisely and efficiently.

POLICY 4.2 Encourage public and private property owners to plant native or drought tolerant vegetation.

POLICY 4.3 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 4.4 Promote irrigation and rainwater capture systems that conserve water to support a sustainable community.

POLICY 4.5 Continue to collaborate with Orange County Water District and Metropolitan Water District to ensure reliable, adequate, and high-quality sources of water supply at a reasonable cost.

City of Santa Ana Municipal Code

Municipal Code Section 39-99; Permanent Water Conservation Requirements: The City promotes water use efficiency and includes the following water conservation requirements that are effective at all times.

- Watering of a lawn, landscape or other vegetated area between the hours of 8:00 a.m. and 6:00 p.m. is prohibited.
- No washing down hard or paved surfaces.
- Watering hours are limited.
- Using water to irrigate within 48 hours after rainfall is prohibited.
- Using water to wash or clean a vehicle is prohibited.
- The use of water to clean, fill or maintain levels in water features is prohibited.
- All leaks, breaks, or other malfunctions in the water user's plumbing, irrigation, or distribution system must be repaired within 72 hours.
- No restaurant, hotel, café, or cafeteria shall serve drinking water unless requested.
- Hotels, motels, and other commercial lodging must provide the option to opt out of towel and linen service.
- Food preparation establishments are prohibited from using non-water efficient kitchen spray valves.
- Installation of single pass cooling systems is prohibited in any new or remodeled building.
- Commercial car washes must have re-circulating water.
- Installation of non-recirculating water is prohibited in car washes and laundry systems.
- Watering or irrigation with a device that is not continuously attended is limited to 15 minutes per day.
- New planting should be performed with drought tolerant plants.
- Irrigating ornamental turf on public street medians is prohibited.
- A shutoff nozzle on hoses is required at all times.
- Unauthorized uses of hydrants are prohibited.

Municipal Code Section 39-100; Water Shortage Levels: The City created a Water Shortage Contingency Plan that defines six (6) water supply shortage levels corresponding to progressive ranges from 10 to 50 percent shortages and a greater than 50 percent shortage.

Municipal Code 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 SF 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.

5.15.2.2 WATER ENVIRONMENTAL SETTING

The City of Santa Ana Water Resources Division provides water services to a 27-square mile service area that includes the City of Santa Ana and a small area of the City of Orange.

Water Supply and Demand

The City’s water supply is a combination of imported water from the Metropolitan Water District of Southern California (MWD), groundwater from the Orange County Groundwater Basin (OC Basin), and recycled water. Groundwater production accounts for 70-77 percent of the water supply and MWD imported water accounts for 23-30 percent, while recycled water accounts for less than 1 percent. Table 5.15-1 below summarizes the water supply volume by source in 2020.

Table 5.15-1: City of Santa Ana Actual Water Supply in 2020

Source	Volume (acre-feet)	Percentage
OC Groundwater Basin	25,591	76.4%
Imported/Purchased	7,649	22.8%
Recycled	249	0.8%
Total	33,489	100%

Source: 2020 UWMP.

The Project site is currently developed with 16 commercial buildings that total 465,063 SF and include restaurants, a supermarket, banks, a dry cleaner, medical office, financial, and fitness uses and onsite landscaping. As shown in Table 5.15-2, the existing water demand for the Project site is approximately 27,500 GPD.

Table 5.15-2: Existing Water Demand for the Project Site

Land Use	SF	SF to Acres	Water Demand Factor ¹	Daily Water Use (GPD)	Annual Water Use (AFY)
Commercial	465,063	11	2,500 gpd/acre	27,500	30

Source: WSA, Appendix P

¹ City of Santa Ana Design Guidelines for Water and Sewer Facilities (November 2020)

As shown in Table 5.15-3, the WSA prepared for the Project details that the City’s water supply will increase from 33,489 acre-feet (AF) in 2020 to 33,827 AF in 2045 (increase of 338 AFY) to meet the City’s anticipated growth in water demands; including the buildout of the South Bristol Street Focus Area. Currently, 76 percent of the City’s water supply is groundwater from the OC Basin, 23 percent is from Metropolitan imported water and 1 percent is from recycled water by the year 2045 the City’s water supply portfolio is expected to change slightly with an increase to 84 percent from OC Basin groundwater, decrease to 15 percent from Metropolitan imported water, and 1 percent recycled water.

Table 5.15-3: City of Santa Ana Projected Water Supply and Demand Projections (acre-feet)

Source	2020	2025	2030	2035	2040	2045	2045 Percentage
OC Groundwater Basin	25,591	28,588	29,024	28,799	28,551	28,541	84.4%
Imported/Purchased	7,649	5,045	5,122	5,082	5,038	5,037	14.9%
Recycled	249	249	249	249	249	249	0.7%
Total Water Supply per Demand	33,489	33,882	34,395	34,130	33,838	33,827	100%

Source: WSA, Appendix P.

The 2020 UWMP also describes that water demands per capita have been decreasing in recent years due to new state and local regulations related to water conservation, and provided projections of water demand and supply ability to meet demand that were less than those previously identified in the 2015 UWMP based on the conservation features and limited growth in the City. The 2020 UWMP describes that the City used 66 gallons per capita per day (GPCD) in 2020, which is below the City’s target of 116 GPCD for 2020. As

shown in Table 5.15-4, the 2020 MWD UWMP indicates that MWD has supply capabilities that would be sufficient to meet demands from 2025 to 2045 under the normal, single dry-year, and multiple dry years. Thus, the City would continue to be able to utilize imported water supply as needed.

Table 5.15-4: MWD Multiple Climate Scenario Water Supply Capability and Projected Demands Comparison from 2025-2045 (AF)

Forecast Year	2025	2030	2035	2040	2045
Normal Year					
Capability of Current Supply	3,899,000	3,893,000	3,890,000	3,888,000	3,885,000
Total Demands	1,427,000	1,388,000	1,362,000	1,378,000	1,403,000
Supply Programs Under Development	13,000	13,000	13,000	13,000	13,000
Total Potential Surplus	2,485,000	2,518,000	2,541,000	2,523,000	2,495,000
Single-Dry Year					
Capability of Current Supply	2,772,000	2,761,000	2,760,000	2,760,000	2,757,000
Total Demands	1,544,000	1,500,000	1,473,000	1,496,000	1,525,000
Supply Programs Under Development	0	0	0	0	0
Total Potential Surplus	1,228,000	1,261,000	1,287,000	1,264,000	1,232,000
Multiple-Dry Year					
Capability of Current Supply	2,178,800	2,219,000	2,241,000	2,263,000	2,239,000
Total Demands	1,592,000	1,570,000	1,537,000	1,539,000	1,564,000
Supply Programs Under Development	0	0	0	0	0
Total Potential Surplus	586,800	649,000	704,000	724,000	675,000

Source: WSA, Appendix P

The water supply identified in Table 5.15-4 does not reflect the total supply available to the City for each of the scenarios. The City of Santa Ana has additional supply and resources available from MWD and sustainable management practices. The City’s 2015 UWMP estimated a higher demand for water supply and greater growth in the City through 2040 than the 2020 UWMP. The WSA prepared for the Project details that the City has an additional supply of 5,500 to 6,500 AFY than anticipated to be needed by the 2020 UWMP projections. Table 5.15-5 provides a comparison of the 2015 and 2020 UWMP assumptions of water supply demands and supplies.

Table 5.15-5: 2015 and 2020 UWMP Water Supply Comparison (AFY)

Forecast Year	2025	2030	2035	2040
Supply Normal Year				
2015 UWMP	39,717	39,989	39,978	40,036
2020 UWMP	33,882	34,395	34,130	33,838
Difference	5,835	5,594	5,848	6,198
Supply Single-Dry Year				
2015 UWMP	42,100	42,388	42,377	42,438
2020 UWMP	35,915	36,459	36,178	35,868
Difference	6,185	5,929	6,199	6,570
Supply Multiple-Dry Years				
First Year				
2015 UWMP	42,100	42,388	42,377	42,438
2020 UWMP	35,581	36,024	36,403	36,116
Difference	6,519	6,364	5,974	6,322
Second Year				
2015 UWMP	42,100	42,388	42,377	42,438
2020 UWMP	35,665	36,133	36,347	36,054
Difference	6,435	6,255	6,030	6,384
Third Year				
2015 UWMP	42,100	42,388	42,377	42,438
2020 UWMP	35,748	36,241	36,290	35,992
Difference	6,352	6,147	6,087	6,446

Source: WSA, Appendix P

Groundwater: As described previously, a majority of the City’s water supply is groundwater that is pumped from the OC Basin. The OC Basin 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, the Pacific Ocean to the southwest, and terminates at the Orange County line to the northwest, where its aquifer systems continue into the Central Basin of Los Angeles County. 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 (UWMP 2020).

OCWD manages the OC Basin through a Basin Production Percentage (BPP) that is determined each water year based on groundwater conditions, availability of imported water supplies, water year precipitation, Santa Ana River runoff, 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 disincentive to pump above the BPP. For example, if the BPP is set at 77 percent for 2021-2022, all pumpers within the Basin, including the City, can supply 77 percent of their water needs from groundwater supplies at a cost significantly less than the cost of imported water. If groundwater production is equal to or less than the BPP (i.e., less than 77 percent in the example above), all producers within the Basin pay a replenishment assessment fee which is used to fund groundwater replenishment and recharge programs aimed at ensuring the long-term viability and stability of the Basin. OCWD anticipates being able to sustain the BPP at 85 percent starting in 2025 (UWMP 2020).

As required by Senate Bill 1262, the WSA prepared for the proposed Project describes that the OC Basin is designated as a medium-priority basin and has operated within its sustainable yield over a period of at least 10 years without experiencing significant and unreasonable (1) lowering of groundwater levels, (2) reduction in storage, (3) water quality degradation, (4) seawater intrusion, (5) inelastic land subsidence, or (6) depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water. In addition, the OC Basin has not been in a condition of critical overdraft.

Imported Water: The City of Santa Ana supplements its local water supply with imported water purchased from MWD. In fiscal year 2019-2020, the City relied on approximately 23 percent of the City's water supply portfolio on imported water from MWD to meet its demands. The 2020 MWD UWMP determined that MWD has supply capabilities that would be sufficient to meet expected demands from 2020 through 2045 under the normal, single dry-year and multiple dry-year conditions. The MWD imported water is treated at MWD's Robert Diemer Filtration Plant north of Yorba Linda. The City has seven connections to the MWD system. In addition, the City participates in MWD's Conjunctive Use Program, which stores surplus imported MWD water in the Basin to maintain reliability during dry, drought, and emergency conditions (UWMP 2020).

Recycled Water: The City obtains its recycled water supply from the Orange County Water District (OCWD) for non-potable uses such as irrigation. OCWD provided approximately 249 AF of recycled water to the City of Santa Ana in fiscal year 2019-2020 as part of the Green Acres Project (GAP), which 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 in the Cities of Santa Ana, Costa Mesa, Fountain Valley, Newport Beach. The City maintains an agreement with OCWD to supply GAP water to customers where available, and it is anticipated that recycled water supplied to the City would maintain around 249 AFY through 2045 (2020 UWMP). However, there is no available recycled water from OCWD to serve additional uses, including the proposed Project.

Water Infrastructure

The City maintains 480 miles of transmission and distribution mains, 9 reservoirs with a storage capacity of 49.3 million gallons, 7 pumping stations, and 21 groundwater wells. The Project site is currently served by the City's water utility and is connected to the existing water infrastructure. MacArthur Boulevard contains a 14-inch water main and Bristol Street, Sunflower Avenue, and Plaza Drive each contain 12-inch water mains that convey water supplies to the Project site and adjacent areas.

5.15.2.3 WATER THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

- UT-1 Require or result in the construction of new water facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects; or
- UT-2 Have sufficient water supplies available to serve the project and reasonably foreseeable development during normal, dry, and multiple dry years.

5.15.2.4 WATER SERVICE METHODOLOGY

The evaluation of water supply quantifies the amount of water that would be required to support operation of the proposed Project and compares the demand to the City's available water supply to identify if sufficient water supplies available to serve the proposed Project and reasonably foreseeable development 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.

5.15.2.5 WATER ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR addressed impacts related to utilities and service systems in Chapter 5.18.

Water Infrastructure. The GPU FEIR determined that with full buildout of the GPU, water demand would increase throughout the City. The GPU FEIR describes that although the City's distribution system is hydraulically sound, due to the age of the existing water infrastructure, water main replacements would be required. The GPU FEIR describes that the water demands to the South Bristol Street Focus Area would increase by 478,385 gpd from buildout of the Focus Area. Further, the GPU FEIR determined that through its planning and CIP mechanisms, the City would be able to implement improvements to have adequate capacity for the resulting increases in water demands across the City under implementation of the GPU. Additionally, the GPU includes regulatory requirements and relevant policies which contribute to reduce potential impacts to water infrastructure. Therefore, the GPU FEIR determined that impacts to water infrastructure would be less than significant.

Water Supply. The GPU FEIR was based on the 2015 UWMP and determined that the City would have enough supply to meet projected demands in normal, dry, and multiple dry years. GPU policies are also in place to encourage water conservation and several possible new water supplies are being considered such as expanded groundwater replenishment systems, a proposed MWD Regional Recycled Water Supply Program, and desalinated ocean water.

The GPU FEIR describes on Table 5.18-12 that the South Bristol Street Focus Area currently utilizes 136,957 gpd of water and that buildout of the South Bristol Street Focus Area pursuant to the GPU (5,492 residential dwelling units and 5,082,641 SF of non-residential space) would result in a water demand increase of 1,198,226 gpd, which is 875 percent increase in demand for water within the Focus Area. However, the GPU FEIR determined that the water demand increases as a result of the GPU are within the 2015 UWMP planned supplies from the City, OCWD, and MWD during normal-dry and multiple-dry year scenarios. Upon implementation of regulatory requirements and standard conditions of approval, impacts related to water supply were determined to be less than significant.

Sewer Infrastructure. The GPU FEIR determined that with full buildout of the GPU, sewer flows are estimated to increase, and new or expanded infrastructure would be needed to accommodate increased flows. Compliance with the OCWD sewage improvement process would reduce impacts to the City's wastewater system to less than significant levels. The GPU FEIR identified on Table 5.18-3 that within the South Bristol Street Focus Area, an estimated 478,385 gpd increase in sewer flows would occur from buildout of the Focus Area. The GPU FEIR stated that hydraulic improvements may be required to supplement the previous two improvements immediately adjacent to the area. The GPU FEIR determined that the sewage system in this Focus Area would be able to accommodate significant future growth due to its proximity to large OCSD trunk lines, and that impacts would be less than significant.

Wastewater Capacity. The GPU FEIR determined that full buildout of the GPU is estimated to generate an increased 6.8 millions of gallons per day (mgd) of wastewater, which is within the remaining capacity of OCSD Treatment Plant No. 1 and the groundwater replenishment system (GWRS). Sewer utility infrastructure improvements and wastewater discharge quality would be required to comply with applicable city or federal guidelines. Therefore, wastewater generated through development would have a less than significant impact on the City and OCSD's overall wastewater collection and treatment facilities and systems.

Drainage Infrastructure. The GPU FEIR determined that drainage impacts would be less than significant with compliance to provisions under the Orange County MS4 Permit.

Solid Waste Capacity. With full buildout of the GPU, the Frank R. Bowerman Landfill is expected to provide long-term solid waste landfill capacity. Development under the GPU would be required to comply with waste, recycling, and organic waste guidelines on federal, state, and local levels. Therefore, solid waste facilities would be able to accommodate project-generated solid waste and comply with regulations, resulting in less than significant impacts.

Electricity and Natural Gas. The GPU FEIR determined that increased electricity demands at full buildout are within the forecasted demand in Southern California Edison's service area; therefore, impacts would be less than significant. Likewise, increased natural gas demands at full buildout are within the forecasted demand that SoCal Gas would supply, and impacts would be less than significant.

Proposed Specific Plan Project

IMPACT UT-1: THE PROJECT WOULD NOT REQUIRE OR RESULT IN THE RELOCATION OR CONSTRUCTION OF NEW WATER FACILITIES, OR EXPANSION OF EXISTING FACILITIES, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS.

Less than Significant Impact. The proposed Project would redevelop the Project site, which is currently served by the City's water infrastructure. The Project site is currently served by an existing 12-inch water main in Plaza Drive, an existing 14-inch water main in MacArthur Boulevard, an existing 12-inch water main in Bristol Street, an existing 12-inch water main in Callen's Common (which is an onsite private roadway that bisects the site), and an existing 12-inch water main in Sunflower Avenue.

The proposed Project would demolish the existing buildings on the Project site and remove the onsite infrastructure, including water mains. The proposed Project would install a new onsite water infrastructure system that would connect to water mains adjacent to the site. The onsite improvements include replacement of the existing 12-inch water main in Callen's Common between South Plaza Drive and Bristol Street with a new 12-inch water main and construction of a 12-inch water main in Bristol Paseo from MacArthur Boulevard to Sunflower Avenue with connections to other onsite private water infrastructure. The proposed Project also includes offsite infrastructure improvements that would replace a portion of the 12-inch water main in South Plaza Drive from MacArthur Boulevard to Sunflower Ave with a 12-inch water main. Also, the existing 12-inch water mains in Sunflower Avenue from South Plaza Drive to Bristol Street and Bristol Street from MacArthur Boulevard to Sunflower Avenue would be replaced "in-kind" with new 12-inch water mains. The new onsite and new offsite water infrastructure would convey water supplies to the proposed residences, commercial uses, and landscaping through plumbing/landscaping fixtures that would be compliant with the Title 24/CALGreen Plumbing Code for efficient use of water, which would be ensured through the City's development permitting process.

The proposed Project would continue to receive water supplies through the existing and improved water mains that are adjacent and near the site. This is consistent with the GPU FEIR findings that the City's water distribution system is hydraulically sound, but that due to the age and capacity of the existing water infrastructure, water main replacements would be required. Hydraulic modeling is required by the City to confirm the ability of the infrastructure to provide the peak flow demands and fire flows to the Project and existing land uses. The proposed installation of the new onsite water distribution lines would replace existing infrastructure and would serve the proposed Project. The construction activities related to the new onsite and offsite water infrastructure would occur within urban and developed areas that would be disturbed for other aspects of the proposed Project. The onsite infrastructure would be removed as part of Project grading and site preparation activities, and the new onsite infrastructure would be installed as part of grading, building construction, and installation of other utilities. The proposed offsite improvements to water mains would occur within roadway rights-of-way that would be improved as part of implementation of the proposed Project. Overall, the installation of new water infrastructure and improvements to offsite aged infrastructure is included as part of the proposed Project and would not result in any physical environmental effects beyond those identified throughout this Supplemental EIR. For example, analysis of construction emissions for excavation and installation of the water infrastructure is included in Sections 5.1, *Air Quality*, and 5.5, *Greenhouse Gas Emissions*, and noise related to construction activities is included in Section 5.9, *Noise*. Therefore, impacts related to water infrastructure would be less than significant.

This is consistent with the GPU FEIR, which determined that through its planning and CIP mechanisms, the City would provide improvements to aged infrastructure to have adequate capacity for the proposed increases in water flows from buildout of the GPU, including those from buildout of the South Bristol Street Focus Area, and that impacts would be less than significant.

IMPACT UT-2: THE CITY WOULD HAVE SUFFICIENT WATER SUPPLIES AVAILABLE TO SERVE THE PROJECT AND REASONABLY FORESEEABLE DEVELOPMENT DURING NORMAL, DRY, AND MULTIPLE DRY YEARS.

Less than Significant Impact. The proposed Project would redevelop the Project site, which is currently developed with 16 commercial buildings that include restaurants, a supermarket, banks, a dry cleaner, medical office, financial, and fitness uses and onsite landscaping. Water demand estimates for buildout of the South Bristol Street Focus Area were included in the GPU FEIR based on the 2015 UWMP; which determined that the City has adequate water supplies in multiple dry years to serve the City’s need for water. Because the proposed Project is within the maximum buildout of the Project site as anticipated by the GPU, it is within the GPU FEIR water demand projections.

A site-specific WSA was prepared for the proposed Project to identify the water demand of 3,750 multi-family residential units, 200 units for senior living, a 250-room hotel, commercial uses, and 6.6 acres of landscaping. As shown in Table 5.15-6, the WSA determined that the proposed Project would result in an increase of 802,359 GPD or 899 AFY. This volume of water supply was accounted for in the City’s 2015 UWMP (as determined by the GPU FEIR). Additionally, as detailed previously in Table 5.15-5, the City has an additional supply of 5,500 to 6,500 AFY beyond that anticipated to be needed by the 2020 UWMP projections. Therefore, the City would have sufficient water supplies available.

Table 5.15-6: Operational Increase in Water Demands with Project Buildout

Land Use	Proposed	Water Duty Factor	Proposed Daily Water Usage (GPD)	Proposed Annual Water Usage (AFY)
Multi-Family Residential	3,750 du	190 gpd/unit	712,500	798
Senior Living/ Continuum of Care	200 units	190 gpd/unit	38,000	43
Hospitality	250 keys	180 gpd/room	45,000	50
Commercial	350,000 gsf	2,500 gpd/acre	20,087	23
Landscaping	6.6 acres	ETWU equation	13,463	15
Proposed Water Demands			829,050	929
Existing Water Demands (Commercial)			26,691	30
Proposed Minus Existing Water Demands			802,359	899

Source: WSA, Appendix P

The water factors used herein are conservative and are higher than the average water use and assume full occupancy of the proposed Project to identify the maximum potential demand for water supplies. Because the proposed Project would result in an increase in demand for water supplies that has been accounted for within previous City water supply planning, and separately verified through a Project specific WSA, the City would have adequate water supplies available to serve the proposed Project, and impacts would be less than significant.

Therefore, impacts related to water supplies from the proposed Project are consistent with the findings of the GPU FEIR, which determined that water demand increases as a result of the GPU are within the planned supplies from the City, OCWD, and MWD during normal-dry and multiple-dry year scenarios, and that impacts would be less than significant.

5.15.2.6 WATER CUMULATIVE IMPACTS

Cumulative water supply impacts are considered on a citywide basis and are associated with the capacity of the infrastructure system and the adequacy of the City's infrastructure and primary sources of water that include groundwater pumped through City wells, deliveries of imported water from MWD, and recycled water from OCWD. Potential impacts related to water supply and infrastructure are based on the projections contained within the City's GPU, GPU FEIR, 2015 UWMP, and 2020 UWMP.

As described previously, during construction of the proposed Project new water mains would be installed to serve the proposed buildings and landscaping, which would connect to improved offsite water mains that are adjacent to the Project site. The onsite water system has been designed for the proposed Project and would be served by existing and improved offsite infrastructure. The City requires that all water system improvements be confirmed through hydraulic studies to confirm compliance with engineering standards, and ensure that cumulative impacts do not occur.

The WSA that was prepared for the proposed Project describes that the 2020 MWD UWMP details the ability to meet the demands of its member agencies, including the City of Santa Ana, through 2045. In addition, the City of Santa Ana 2015 UWMP, GPU FEIR, and 2020 UWMP confirmed the ability of the City to meet water needs in multiple dry year scenarios with buildout of the South Bristol Street Focus Area. Thus, the City would have water supplies available to serve the proposed Project and reasonably foreseeable development in normal, dry, or multiple dry years. Impacts related to a cumulatively considerable increase in water supply demands would be less than significant.

5.15.2.7 EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS, OR POLICIES

The following standard regulations would reduce potential impacts related to water:

- California Code of Regulations Title 24, Part 11; the California Green Building Code
- Santa Ana Municipal Code Section 39-106; Permanent Water Conservation Requirements
- Santa Ana Municipal Code Section 41-1503; Landscape Water Use Standards

5.15.2.8 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

With implementation of existing regulatory requirements that would be ensured through the City's development permitting process, Impacts UT-1 and UT-2 would be less than significant.

5.15.2.9 WATER MITIGATION MEASURES

GPU FEIR Mitigation Measures

No mitigation measures related to water supply or infrastructure were included in the GPU FEIR.

Proposed Specific Plan Project Mitigation Measures

No new mitigation measures are required for the proposed Project.

5.15.2.10 WATER LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant unavoidable adverse impacts related to water supplies or water infrastructure would occur.

5.15.3 WASTEWATER

5.15.3.1 WASTEWATER REGULATORY SETTING

National Pollution Discharge Elimination System Permit

The NPDES permit system was established in the Federal Clean Water Act to regulate both point source discharges (a municipal or industrial discharge at a specific location or pipe) and nonpoint source discharges (diffuse runoff of water from adjacent land uses) to surface waters of the U.S. For point source discharges, such as sewer outfalls, each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge.

State Water Resources Control Board Statewide General Waste Discharge Requirements for Sewer Systems

The 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 Order No. 2006-0003 is to provide a consistent statewide approach for reducing Sanitary Sewer Overflows (SSOs), which are accidental releases of untreated or partially treated wastewater from sanitary sewer systems, by requiring that:

1. In the event of an SSO, all feasible steps be taken to control the released volume and prevent untreated wastewater from entering storm drains, creeks, etc.
2. If an SSO 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 (SSMP), which must be updated every five years.

The City of Santa Ana has updated its Sewer System Management Plan in compliance with these requirements in 2022.

City of Santa Ana General Plan

The Santa Ana General Plan Update includes the following goals and policies that are related to wastewater and the proposed Project.

Public Services Element

- POLICY 3.2** Provide and maintain wastewater collection facilities which adequately serve existing land uses and future development projects while maximizing cost efficiency.
- POLICY 3.3** Explore new technologies that treat and process wastewater that reduce overall capacity needs of centralized wastewater systems.
- POLICY 3.12** Maintain and upgrade sewer and water infrastructure through impact fees from new development and exploring other funding sources.

5.15.3.2 WASTEWATER ENVIRONMENTAL SETTING

In 2020, the City of Santa Ana generated approximately 21,768 acre-feet of wastewater (2020 UWMP). The City of Santa Ana operates and maintains the local sewer system consisting of approximately 390 miles of pipeline, 7,360 manholes, and two lift stations that connect to OCSD's trunk system to convey water to OCSD Treatment Plant 1. Wastewater from the Project site currently discharges into a private 8-inch sewer main (COSA) along the southern boundary which drains westerly toward an existing City 8-inch sewer main at Sunflower Avenue and Bristol Street that drains into the 78-inch OCSD trunk sewer in Sunflower Avenue.

The GPU FEIR determined that the existing wastewater flows for the South Bristol Street Focus Area are 565,500 gpd with an average flow of 0.0534 cubic feet per second (cfs) and a peak flow of 0.160 cfs. The Sewer Study (Appendix Q) prepared for the proposed Project monitored existing flows in Plaza Drive, Sunflower Avenue, and the private 8-inch COSA sewer main southwest of the site and determined that the OCSD 15-inch sewer main in Plaza Drive sewer has a capacity of 1.99 cfs, OCSD 78-inch sewer at Sunflower Avenue has a capacity of 96.80 cfs when it is $\frac{3}{4}$ full, and the COSA 8-inch sewer main at the southwest of the site at has a capacity of 0.366 cfs when it is half full (Appendix Q).

Wastewater from the Project site is treated at OCSD's Treatment Plant No. 1 in Fountain Valley. The treatment plant has a secondary treatment capacity of 182 mgd. Average wastewater flows through Plant No. 1 are about 120 to 130 mgd; and therefore, the Plan has an additional capacity of approximately 52 mgd (GPU FEIR).

5.15.3.3 WASTEWATER THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

- UT-3 Require or result in the construction of new wastewater facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects; or
- UT-4 Result in a determination by the wastewater treatment provider that would serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

5.15.3.4 WASTEWATER SERVICE METHODOLOGY

The evaluation of wastewater infrastructure quantifies the amount of wastewater that would be generated from operation of the proposed Project and compares the demand to the existing and planned sewer infrastructure in the Project area and wastewater treatment plant that treats flows from the Project site. The evaluation identifies if expansions would be required to serve the proposed development, and if those expansions have the potential to result in an environmental impact.

5.15.3.5 WASTEWATER ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR determined that the City would conduct sewer studies for individual projects within the GPU buildout area and upsizing sewer pipes would be analyzed on a case-by-case basis. The GPU FEIR also determined that OCSD's Treatment Plant No. 1 would be able to accommodate the increase in wastewater generated by development pursuant to the GPU at buildout. Thus, the GPU FEIR determined that impacts related to wastewater would be less than significant with implementation of regulatory requirements and GPU policies.

Proposed Specific Plan Project

IMPACT UT-3: THE PROJECT WOULD NOT REQUIRE OR RESULT IN THE RELOCATION OR CONSTRUCTION OF NEW WASTEWATER FACILITIES, OR EXPANSION OF EXISTING FACILITIES, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS.

Less than Significant Impact. The Project site is currently served by a private 8-inch sewer main along the southern boundary which drains westerly toward an existing city-owned 8-inch sewer main at Sunflower Avenue and Bristol Street that drains into the 78-inch OCSD sewer main in Sunflower Avenue. The proposed Project would install a new onsite sewer system that would connect directly to the 78-inch OCSD sewer main in Sunflower Avenue.

A Sewer Analysis Report (Appendix Q) was prepared to determine whether the sewer system would be able to adequately handle the wastewater flows from the proposed Project in addition to existing flows. The analysis determined that the existing commercial development on the Project site generates an average flow of 0.0534 cfs with a peak flow of 0.160 cfs. The proposed Project would generate an average flow of 1.177 cfs with a peak flow of 3.530 cfs. Thus, the proposed Project would result in an increase of flows by an average daily flow of 1.1236 cfs and a peak flow of 3.370 cfs.

Based on results of the Sewer Analysis Report (Appendix Q), the proposed Project would install a new onsite sewer system that would connect to the existing 78-inch OCSD sewer main within the Sunflower Avenue right-of-way. The Sewer Analysis Report determined that the Sunflower Avenue OCSD sewer main has a maximum capacity of 96.8 cfs and has adequate capacity to accommodate the additional wastewater flows from the proposed Project.

The construction activities related to the new onsite sewer system and connection to the existing 78-inch OCSD sewer main is included as part of the proposed Project and would not result in any physical environmental effects beyond those identified throughout this Supplemental EIR. For example, an analysis of construction emissions for excavation and installation of the sewer infrastructure is included in Sections 5.1, *Air Quality*, and 5.5, *Greenhouse Gas Emissions*, and noise volumes from these activities are evaluated in Section 5.9, *Noise*. As the proposed Project includes facilities to serve the proposed Project and connect to sewers that would have capacity to serve the proposed Project, it would not result in the need for construction of other new wastewater facilities or expansions, the construction of which could cause significant environmental effects. Therefore, potential impacts related to wastewater infrastructure would be less than significant.

This determination is consistent with that of the GPU FEIR, which determined that increases in wastewater from buildout of the South Bristol Street Focus Area increases would be accommodated by the OCSD trunk sewer mains that are proximate to the area, and that impacts related to sewer infrastructure would be less than significant.

IMPACT UT-4: THE PROJECT WOULD RESULT IN A DETERMINATION BY THE WASTEWATER TREATMENT PROVIDER THAT WOULD SERVE THE PROJECT THAT IT HAS ADEQUATE CAPACITY TO SERVE THE PROJECTS PROJECTED DEMAND IN ADDITION TO EXISTING COMMITMENTS.

Less than Significant Impact. The proposed Project would result in an increase of wastewater generation from the site. To evaluate the maximum potential impact of the proposed Project on wastewater treatment facilities, and because wastewater treatment facility capacity is based on mgd not cfs, the GPU FEIR multiplied water flow factors by 0.95 to determine sewer flows. As described previously in the Impact UT-2 discussion, based on Appendix P, the proposed Project would generate an increased water demand from

the site of 802,359 gpd of water. Assuming all of this needs treatment, the proposed Project would result in an 762,241.05 gpd (0.76 mgd) increase in flows to the OCSD Reclamation Plant No. 1 in Fountain Valley.

As noted above, the OCSD 78-inch sewer in Sunflower Avenue conveys wastewater to the OCSD Reclamation Plant No. 1, which has a treatment capacity of 345 mgd during peak wet weather and 182 MGD during dry weather (RWQCB 2023). Average wastewater flows through Plant No. 1 are about 120 to 130 mgd (GPU FEIR). Due to the existing additional capacity of 52 mgd, the existing facilities would be available to accommodate the 0.80 mgd increase in wastewater flow from full occupancy of the proposed Project. As a result, implementation of the proposed Project would not result in inadequate capacity of the wastewater treatment plant to serve the proposed Project's demand in addition to existing service commitments, and impacts would be less than significant. This is consistent with the GPU FEIR, which determined that wastewater generated through development in accordance with the GPU would have a less-than-significant impact on the existing wastewater collection and treatment facilities and systems.

5.15.3.6 WASTEWATER CUMULATIVE IMPACTS

Cumulative wastewater infrastructure impacts are considered on a systemwide basis and are associated with the overall capacity of existing and planned infrastructure. The cumulative system evaluated includes the sewer system that serves the Project site and conveys wastewater to the OCSD wastewater treatment and disposal system.

As described previously, with the proposed Project, the sewer system would have sufficient capacity to handle the increased flows resulting from implementation of the proposed Project. The continued regular assessment, maintenance, and upgrades of the sewer system by the City and OCSD would reduce the potential of cumulative development projects to result in a cumulatively substantial increase in wastewater such that new or expanded facilities would be required. Thus, increases in wastewater in the sewer system would result in a less than significant cumulative impact.

5.15.3.7 EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS, OR POLICIES

The following standard regulations would reduce potential impacts related to wastewater:

- California Code of Regulations Title 24, Part 11; the California Green Building Code

5.15.3.8 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impacts UT-3 and UT-4 would be less than significant.

5.15.3.9 WASTEWATER MITIGATION MEASURES

GPU FEIR Mitigation Measures

No mitigation measures related to wastewater were included in the GPU FEIR.

Proposed Specific Plan Project Mitigation Measures

No new mitigation measures are required for the proposed Project.

5.15.3.10 WASTEWATER LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant unavoidable adverse impacts related to wastewater infrastructure would occur.

5.15.4 DRAINAGE

5.15.4.1 DRAINAGE REGULATORY SETTING

Santa Ana Regional Municipal Separate Storm Sewer System Permit

The Municipal Separate Storm Sewer System (MS4) Permit (Order No. R8-2009-0030) for the Santa Ana Region regulates urban runoff from areas under jurisdiction of the Permit's various permittees, which include Orange County, Orange County Flood Control District, and the incorporated cities within Orange County including the City of Santa Ana. When discharged, urban runoff (or stormwater) has the potential to mix with and carry various pollutants into receiving waters. The Permit lists allowable and unallowable discharges and requires implementation of LID infrastructure, which are engineered facilities that are designed to retain and/or biotreat runoff on the project site. Developments that qualify as New Development or Significant Redevelopment projects are considered priority projects and 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 proposed Project is considered a Significant Redevelopment project and therefore must implement a WQMP. The WQMP is required to be approved prior to the issuance of a building or grading permit, and post-construction BMPs are required to be implemented. The MS4 Permit requires priority projects to infiltrate, harvest and use, evapotranspire, or biotreat/biofilter, the 85th percentile of a 24-hour storm event (Design Capture Volume). The MS4 Permit also requires the evaluation and use of LID features using the following hierarchy of treatment: infiltration, evapotranspiration, harvest/reuse, and biotreatment.

Biotreatment BMPs are a broad class of LID BMPs that reduce stormwater volume to the maximum extent practicable, treat stormwater using a suite of treatment mechanisms characteristic of biologically active systems, and discharge water to the downstream storm drain system or directly to receiving waters. Treatment mechanisms include media filtration (through biologically-active media), vegetative filtration (straining, sedimentation, interception, and stabilization of particles resulting from shallow flow through vegetation), general sorption processes (i.e., absorption, adsorption, ion exchange, precipitation, surface complexation), biologically-mediated transformations, and other processes to address both suspended and dissolved constituents. Examples of biotreatment BMPs include bioretention with underdrains, vegetated swales, constructed wetlands, and proprietary biotreatment systems.

County of Orange Drainage Area Management Plan

The Drainage Area Management Plan (DAMP) is the County's primary policy, planning and implementation document for NPDES Permit compliance. The DAMP describes the agreements, structures and programs that:

- Provide the framework for the program management activities and plan development;
- Provide the legal authority for prohibiting unpermitted discharges into the storm drain system and for requiring BMPs in new development and significant redevelopment;
- Ensure that all new development and significant redevelopment incorporates appropriate Site Design, Source Control, and Treatment Control BMPs to address specific water quality issues;
- Ensure that construction sites implement control practices that address construction related pollutants including erosion and sediment control and onsite hazardous materials and waste management.

The DAMP requires that new development and significant redevelopment projects (or priority projects), such as the proposed Project, develop and implement a Preliminary WQMP that includes BMPs and LID design features that would provide onsite treatment of stormwater to prevent pollutants from onsite uses from

leaving the site. The WQMP is required to be prepared in accordance with the North Orange County Technical Guidance Document (TGD) which is provided as exhibit 7.III to the DAMP.

City of Santa Ana General Plan

The following objectives and policies from the existing General Plan Update (GPU) Conservation Element are relevant to the proposed Project:

Public Services Element

- 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.

Conservation Element

- 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.

Safety Element

- 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.

City of Santa Ana Municipal Code

Section 18-156; Control of Urban Runoff: This code section states that all new development and significant redevelopment within the City shall be undertaken in accordance with the County DAMP, 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.

5.15.4.2 DRAINAGE ENVIRONMENTAL SETTING

Storm Drainage Facilities

The Project site is located within the Newport Bay Watershed. The proposed Project site is tributary to the Orange County Flood Control District (OCFCD) Santa Ana Gardens Channel, Facility No. F02, which is tributary to the OCFCD Santa Ana-Delhi Channel, Facility No. F01, Upper Newport Bay, and ultimately the Pacific Ocean. The Santa Ana Gardens Channel is a concrete lined channel from upstream at 1st Street to MacFadden Avenue. Downstream of Alton Avenue, the channel is a reinforced rectangular concrete section, with a culvert at MacArthur Boulevard and Bristol Street. The Santa Ana Gardens Channel confluences with the Santa Ana-Delhi Channel at Sunflower Avenue, east of Bristol Street, and continues flowing southerly toward Upper Newport Bay. The Project site is currently 90 percent impervious and 10 percent pervious (Appendix M). The existing topography of the Project site is relatively flat and generally slopes to the west. Drainage from the Project site currently flows to storm drains in Plaza Drive, Sunflower Avenue, Bristol Street, and MacArthur Boulevard; and then to the Santa Ana Gardens Channel, Santa Ana-Delhi Channel, Newport

Bay, and the Pacific Ocean. The existing storm drains and the connections to the Project site are listed on Table 5.15-7.

Table 5.15-7: Existing Storm Drain Connections from the Project Site

Location	Outfall	Existing Storm Drain
MacArthur Boulevard	1	30-inch lateral to 63-inch storm drain
	2	
Bristol Street	3	24-inch lateral
Plaza Drive	4	36-inch to 42-inch storm drain
Sunflower Avenue	5	54-inch to 60-inch storm drain
	6	
	7	

Source: Preliminary Hydrology Report (Appendix L).

Soil Infiltration

Onsite soils infiltration testing was performed during preparation of the Preliminary Geotechnical Investigation Report (Appendix G), which determined that the upper 25 to 30 feet of soils consist predominantly of medium to stiff lean clay (CL) and fat clay (CH) and based on percolation tests results are not suitable for infiltration. The testing identified infiltration rates of <0.10 inches per hour which is a low infiltration rate and considered infeasible to support drainage on the Project site. Groundwater was encountered at a depth of 12-feet and 16 -feet below ground surface (bgs) (Appendix G). As shown in Figure XVI-2f of the North OC TGD, the eastern boundary of the Project site is within the boundary of South Basin Groundwater Protection Project. However, the Project site would not infiltrate into the South Basin groundwater.

5.15.4.3 DRAINAGE THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

- UT-5 Require or result in the construction of new stormwater drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects.

5.15.4.4 DRAINAGE METHODOLOGY

The evaluation of stormwater drainage infrastructure quantifies the amount of impervious surfaces and stormwater runoff that would be generated from the proposed Project and identifies if runoff from the proposed Project would be accommodated by the existing stormwater drainage infrastructure. The evaluation identifies if expansions would be required to serve the proposed development, and if those expansions have the potential to result in an environmental impact.

5.15.4.5 DRAINAGE ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR determined that the City is largely built out with no major undeveloped spaces. Development projects would be required to include hydrology studies to ensure increases in peak flow are mitigated. Additionally, GPU policies encourage features that minimize runoff. The GPU FEIR determined that specific project plans would be subject to federal, state, and local regulations that would reduce drainage impacts in the urban environment to a less than significant level.

Proposed Specific Plan Project

IMPACT UT-5: THE PROJECT WOULD NOT REQUIRE OR RESULT IN THE RELOCATION OR CONSTRUCTION OF NEW DRAINAGE FACILITIES, OR EXPANSION OF EXISTING FACILITIES, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS.

Less than Significant Impact. As described previously, the Project site currently drains to storm drains in Plaza Drive, Sunflower Avenue, Bristol Street, and MacArthur Boulevard via seven outfall connections. The Preliminary Water Quality Management Plan (WQMP) for the proposed Project describes that the Project site currently includes 37.02 acres of impermeable surfaces, which equates to 90 percent of the site. After completion of Project construction, the site would have a 4 percent reduction in impermeable surfaces to 35.37 acres or 86 percent of the site. As shown on Table 5.15-8, the reduction in impervious surfaces would result in a reduction in the 2-year, 24-hour storm volume by 6.3 percent. Hydraulic conditions would not be of concern due to the reduction in the 2-year, 24-hour storm volume.

Table 5.15-8: Proposed Project Two-Year Storm Runoff Rate

Storm Drain	Existing Condition	Proposed Condition
MacArthur Boulevard	18.3	17.8
Bristol Street	9.4	7.3
Plaza Drive	2.2	1.4
Sunflower Avenue	27.3	27.1
Totals	57.2	53.6
Change		-6.3%

Source: Preliminary Hydrology Report, Appendix L

The proposed Project would maintain the existing drainage pattern on the site. Runoff would be collected by roof drains, surface flow designed pavement, curbs, and area drains and conveyed to vegetated biotreatment systems for treatment. Treated runoff would be conveyed to the existing storm drains adjacent to the site. The proposed Project related runoff conditions (flow rates) would decrease from existing conditions (shown in Table 5.15-8), and the proposed Project would manage the runoff with vegetated biotreatment systems that have been designed to accommodate the proposed Project, which would be verified through the City’s WQMP review and permitting process.

Although the proposed Project would result in a reduction of stormwater runoff, the Project includes offsite storm drain improvements pursuant to the City’s Storm Drain Master Plan that involve replacing 2,230 lineal feet of the 54/60-inch storm drain with a 72-inch lateral in Sunflower Avenue and replacing a 42-inch lateral in Plaza drive with a 60-inch lateral. This is being done to implement City’s needed drainage Master Plan improvements within the rights-of-way that would be reconstructed as part of the proposed Project. The effects of the improvements are part of construction of the Project as a whole and are included in the evaluation throughout this Supplemental EIR. However, due to the decrease in stormwater runoff, the Project would not require the need to construct new or expanded drainage facilities. Therefore, impacts related to drainage facilities would be less than significant.

This finding is consistent with the GPU FEIR discussion related to development projects increasing onsite permeability and providing onsite detention systems that would be evaluated in detailed hydrology studies to ensure that existing peak flows would not be exceeded, thereby eliminating any potential increase in runoff and that impacts to the storm drain system would be less than significant.

5.15.4.6 DRAINAGE CUMULATIVE IMPACTS

The geographic scope for cumulative impacts related to stormwater drainage includes the geographic area served by the existing stormwater infrastructure for the Project area, from capture of runoff through final discharge points. As described above the proposed Project would result in a reduction in stormwater runoff from the Project site. As a result, the proposed Project would not generate additional runoff that could combine with runoff from cumulative projects that could cumulatively combine to impact drainage. Thus, cumulative impacts related to drainage would be less than significant.

5.15.4.7 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impact UT-5 would be less than significant.

5.15.4.8 DRAINAGE MITIGATION MEASURES

GPU FEIR Mitigation Measures

No mitigation measures related to drainage were included in the GPU FEIR.

Proposed Specific Plan Project Mitigation Measures

No new mitigation measures are required for the proposed Project.

5.15.4.9 DRAINAGE LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant unavoidable adverse impacts related to drainage would occur.

5.15.5 SOLID WASTE

5.15.5.1 SOLID WASTE REGULATORY SETTING

California Assembly Bill 341

On October 6, 2011, Governor Brown signed AB 341 establishing a state policy goal that no less than 75 percent of solid waste generated be source reduced, recycled, or composted by 2020, and requiring CalRecycle to provide a report to the Legislature that recommends strategies to achieve the policy goal.

California Assembly Bill 1383

On September 19, 2016, Governor Brown signed SB 1383 establishing regulations aimed to reduce organic waste disposal 75 percent and reduce least 20 percent of currently disposed surplus edible food by 2025. The intent of the law is to reduce methane, increase landfill usage, and provide additional food sources for Californians.

California Assembly Bill 1826

On September 28, 2014, Governor Brown signed AB 1826 requiring businesses to recycle their organic waste on and after April 1, 2016, dependent on the amount of waste generated per week. This law requires that local jurisdictions implement an organic waste recycling program to divert organic waste generated by businesses and multifamily residential dwellings that consist of five or more units. This law requires that local

jurisdictions implement an organic waste recycling program to divert organic waste generated by businesses and multifamily residential dwellings that consist of five or more units.

California Medical Waste Management Act

The California Medical Waste Management Act, codified in California Health and Safety Code 117600-118360, regulates the generation, handling, storage, treatment, and disposal of medical waste. Medical waste includes any biohazardous, pathology, pharmaceutical, or trace chemotherapy waste; sharps and trace chemotherapy wastes generated in the diagnosis, treatment, immunization, or care of humans or animals; waste generated in research pertaining to the production or testing of microbiologicals; and waste generated in research using human or animal pathogens. This would regulate waste generated by any onsite medical facilities, including the Senior/Continuum of Care housing facility.

California Green Building Standards

Section 5.408.1 Construction waste diversion. Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste.

5.410.1 Recycling by occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals, or meet a lawfully enacted local recycling ordinance, if more restrictive.

5.15.5.2 SOLID WASTE ENVIRONMENTAL SETTING

In 2019, a majority (80 percent) of the solid waste from the City of Santa Ana, which was disposed of in landfills, went to the Frank Bowerman Sanitary Landfill (CalRecycle 2023). The Frank R. Bowerman Sanitary Landfill received the largest amount of waste in 2019 which was 227,124 tons. The Olinda Alpha Sanitary Landfill received 31,849 tons. The total solid waste disposed from the City was 284,561 tons. The Frank Bowerman Sanitary Landfill is permitted to accept 11,500 tons per day of solid waste and is permitted to operate through 2053. In March 2023, the maximum tonnage received was 8,909.41 tons. Thus, the facility had additional capacity of 2,666.27 tons per day (CalRecycle 2023).

5.15.5.3 SOLID WASTE THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

- UT-6 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.
- UT-7 Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

5.15.5.4 SOLID WASTE METHODOLOGY

Solid waste generation from construction and operation of the proposed Project was estimated using USEPA and CalRecycle solid waste generation factors derived for multi-family residential and commercial uses. Solid waste volumes were then compared with recent estimates of remaining disposal capacity of the landfill serving the City. In addition, potential impacts related to compliance with solid waste regulations were evaluated by identifying how the proposed Project would implement the relevant requirements.

5.15.5.5 SOLID WASTE ENVIRONMENTAL IMPACTS

Summary of Impacts Identified in the GPU FEIR

The GPU FEIR identified that buildout of the South Bristol Street Focus Area would result in an increase of 40,706 pounds per day, and that the citywide increase in solid waste from buildout of the GPU would be 3,137,616 pounds per day that would be subject to organics, food waste and recycling regulations. The GPU FEIR determined that the Frank R. Bowerman Landfill and the Orange County solid waste landfill system would have the ability to accommodate the solid waste needs of the GPU buildout. Thus, impacts were determined to be less than significant.

Proposed Specific Plan Project

IMPACT UT-6: THE PROJECT WOULD NOT GENERATE SOLID WASTE IN EXCESS OF STATE OR LOCAL STANDARDS, OR IN EXCESS OF THE CAPACITY OF LOCAL INFRASTRUCTURE, OR OTHERWISE IMPAIR THE ATTAINMENT OF SOLID WASTE REDUCTION GOALS.

Less than Significant Impact.

Construction

Project construction would generate solid waste for landfill disposal in the form of demolition debris from the existing buildings and infrastructure that would be removed from the site. Demolition waste would be properly characterized as required by law and recycled or disposed of at an appropriate type of landfill for such materials. Construction waste in the form of packaging and discarded materials would also be generated by the proposed Project. Utilizing a construction waste factor of 4.34 pounds per square foot (USEPA 2003), development of the proposed Project would generate approximately 1,009 tons of waste during demolition of the buildings and additional waste during construction, which would occur in phases over a ten-year period. However, Section 5.408.1 of the 2022 California Green Building Standards Code requires demolition and construction activities to recycle or reuse a minimum of 65 percent of the nonhazardous construction and demolition waste. Thus, the demolition and construction solid waste that would be disposed of at the landfill would be approximately 35 percent of the waste generated. Therefore, demolition activities, which would generate the most solid waste would generate approximately 353 tons of solid waste, which would occur over time throughout the phased construction activities. In March 2023, the maximum tonnage received was 8,909.41 tons. Thus, the facility has additional capacity of 8,556.41 tons per day (CalRecycle 2023) and would be able to accommodate the construction solid waste from the proposed Project. Therefore, impacts related to landfill facilities from construction activities would be less than significant.

Operation

Per the GPU EIR, the City has a target disposal maximum rate of 7.5 pounds per capita per day and 16.9 pounds per employee per day. In 2021, the City had a disposal rate of 7 pounds per capita per day and 15.3 pounds per employee per day (CalRecycle 2023). The GPU FEIR provides waste generation factors of 12.23 pounds per household per day for residential uses and 0.043 pounds per SF per day for nonresidential uses.

Based on the GPU FEIR rates, operation of the proposed Project at buildout would generate approximately 25,913 tons of solid waste per year, at least 75 percent of which is required by California law to be recycled, which would reduce the volume of landfilled solid waste to approximately 7,734.8 tons per year, or 148.34 tons per week, as shown on Table 5.15-9.

Table 5.15-9: Solid Waste Demand from Operation of the Proposed Project

Land Use	Quantity	Generation Rate	Solid Waste Demand
Multi-Family Apartments	3,750 units	12.23 pounds/ household/ day	7,593.0 tons per year
Senior/Continuum of Care Units	200 units/ 225,000 SF	0.043 pounds/SF/day	17,656.9 tons per year
Commercial	350,000 SF	0.043 pounds/SF/day	2,746.6 tons per year
Hotel	250 rooms/ 150,000 SF	0.043 pounds/SF/day	1,177.1 tons per year
Special Care Facilities	225,000 SF/ 200 units	0.043 pounds/SF/day	1,765.7 tons per year
Total Solid Waste			30,939.3 tons per year
Annual Landfill Disposal with AB 341 (75% Reduction)			7,734.8 tons per year
Weekly Landfill Disposal with AB 341 (75% Reduction)			148.34 tons per week

Source: GPU FEIR

As described previously, the Frank Bowerman Sanitary Landfill is permitted to accept 11,500 tons per day of solid waste. In March 2023, the maximum tonnage received was 8,909 tons in a day. Thus, the facility had additional capacity of 2,591 tons per day (CalRecycle 2023). Therefore, the Frank Bowerman Sanitary Landfill would be able to accommodate the addition of 148.34 tons of waste per week generated by operation of the Project. Thus, the proposed Project would be served by a landfill with sufficient permitted capacity to accommodate the Project’s solid waste disposal needs and the proposed Project would not impair the attainment of solid waste reduction goals. Thus, impacts related to landfill capacity would be less than significant. Therefore, the proposed Project would be consistent with the findings of the GPU FEIR that the Orange County solid waste landfill system would have the ability to accommodate the GPU at buildout and that impacts would be less than significant.

IMPACT UT-7: THE PROJECT WOULD COMPLY WITH FEDERAL, STATE, AND LOCAL STATUTES AND REGULATIONS RELATED TO SOLID WASTE.

No Impact. The proposed Project would result in new development that would generate an increased amount of solid waste. All solid waste-generating activities within the City is subject to the requirements set forth in the Chapter 16 Article II of the City’s Municipal Code which reflects AB 1826 and SB 1383. The proposed Project would also be subject to Section 5.408.1 of the 2022 California Green Building Standards Code that requires demolition and construction activities to recycle or reuse a minimum of 65 percent of the nonhazardous construction and demolition waste, and AB 341 that requires diversion of a minimum of 75 percent of operational solid waste. Further, the proposed senior/continuum of care housing facility would be required to comply with the California Medical Waste Management Act for proper disposal of all medical waste, which would be ensured through the State’s medical permitting process. Implementation of the proposed Project would be consistent with all state regulations, as ensured through the City’s development project permitting process. Therefore, the proposed Project would comply with all solid waste statute and regulations; and impacts would not occur. Thus, the proposed Project is consistent with the findings of the GPU FEIR, which determined that development would be required to implement regulations related to solid waste and that impacts would be less than significant.

5.15.5.6 SOLID WASTE CUMULATIVE IMPACTS

The geographic scope of cumulative analysis for landfill capacity is the service area for the Frank Bowerman Sanitary Landfill, which serves the Project area. The projections of future landfill capacity based on the entire projected waste stream going to these landfills is used for cumulative impact analysis. As described previously, the Frank Bowerman Sanitary Landfill has a maximum permitted capacity of 11,500 tons per

day and in March 2023 had a maximum disposal of 8,909 tons and a remaining capacity of 2,591 tons per day (CalRecycle 2023). The 124.24 tons of solid waste per week from operation of the proposed Project would be 4.8 percent of the remaining daily capacity of the landfill. Due to this small percentage, the increase in solid waste from the proposed Project would be less than cumulatively considerable and would be less than significant.

5.15.5.7 EXISTING STANDARD CONDITIONS AND PLANS, PROGRAMS, OR POLICIES

The following standard regulations would reduce potential impacts related to solid waste:

- Assembly Bill 341 (Chapter 476, Statutes of 2011)
- Assembly Bill 1829 (Chapter 727, Statutes of 2014)
- California Green Building Standards Code
- California Senate Bill 1383
- California Medical Waste Management Act per California Health and Safety Code Sections 117600-118360,
- Santa Ana Municipal Code Chapter 16 Article II

5.15.5.8 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impacts UT-6 and UT-7 would be less than significant.

5.15.5.9 SOLID WASTE MITIGATION MEASURES

GPU FEIR Mitigation Measures

No mitigation measures related to solid waste were included in the GPU FEIR.

Proposed Specific Plan Project Mitigation Measures

No new mitigation measures are required for the proposed Project.

5.15.5.10 SOLID WASTE LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant unavoidable adverse impacts related to solid waste would occur.

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Preliminary Hydrology Report. Prepared by Fuscoe Engineering, 2023. Appendix L.

Preliminary Water Quality Management Plan. Prepared by Fuscoe Engineering, 2023. Appendix M.

Preliminary Water Quality Management Plan (WQMP) for the 24551 Raymond Way Project. Accessed: <https://ochcd.org/sites/hcd/files/import/data/files/116957.pdf>

Santa Ana River Basin Water Quality Control Plan (Basin Plan). Accessed at: https://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/

Santa Ana River Watershed: Accessed at: <http://www.ocwatersheds.com/programs/ourws/snariver>

Storm Drain Master Plan Drainage Assessment. Prepared by Fuscoe Engineering, Inc, 2023 (Appendix R)

Sewer Analysis Report Related Bristol Specific Plan. Prepared by Fuscoe Engineering, Inc, 2023. (Appendix Q).

State Water Resources Control Board Construction Water Program: Accessed at: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html

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5.16 Mandatory Findings of Significance

5.16.1 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL IMPACTS

Section 15126.2(b) of the CEQA Guidelines requires an EIR to describe “any significant impacts, including those which can be mitigated but not reduced to a level of insignificance.” Potential environmental effects of the proposed Project and mitigation measures are discussed in detail throughout Chapter 5 of this EIR.

Air Quality

As detailed in Section 5.1, *Air Quality*, implementation of the proposed Project would result in short-term emissions of criteria air pollutants during Project construction and long-term emissions of criteria air pollutants from vehicular emissions, natural gas consumption, landscaping, applications of architectural coatings, and use of consumer products during operation. The emissions from the proposed Project are primarily from vehicle trips and use of consumer products. As described in Section 5.13, *Transportation*, Phase 1 of the proposed Project would generate 4,167 “net” daily trips, with 545 “net” trips in the AM peak hour and 359 “net” trips in the PM peak hour. Phase 2 of the proposed Project is forecast to generate 3,241 “net” daily trips, with 293 “net” trips in the AM peak hour and 271 “net” trips in the PM peak hour. Phase 3 of the proposed Project is forecast to generate 80 fewer “net” daily trips, with 381 “net” trips in the AM peak hour and 58 “net” trips in the PM peak hour. Operation of all 3 Phases at buildout of the proposed Project is anticipated to generate 7,328 net daily trips, including 1,219 AM peak hour and 688 PM peak hour trips.

As shown in Table 5.1-9 in Section 5.1, *Air Quality*, emissions from construction of Phase 1 of the proposed Project would exceed the threshold for significance of NO_x. The majority of NO_x emissions during construction of Phase 1 would be derived from equipment and truck exhaust related to earthwork, excavation, and export of soils. Despite implementation of GPU FEIR Mitigation Measure AQ-1 and Project-specific Mitigation Measure AQ-2, emissions of NO_x would remain over the significance threshold for construction of Phase 1. Therefore, Project construction emissions would be significant and unavoidable.

Table 5.1-19 shows that overlapping emissions from operation of Phase 1 and construction of Phase 2 would exceed SCAQMD thresholds for ROG after implementation of Project-specific Mitigation Measures AQ-1 through AQ-6. The majority of the proposed Project’s ROG emission exceedances are from consumer products that the City and Project Applicant cannot control emissions of and therefore cannot feasibly be reduced below the SCAQMD thresholds. As a result, impacts from overlapping emissions of Phase 1 operations and Phase 2 construction would be significant and unavoidable.

Likewise, with the addition of Phase 3 construction, Table 5.1-21 shows that overlapping emissions from operation of Phase 1 and Phase 2 with construction of Phase 3 would exceed SCAQMD thresholds for ROG and NO_x after implementation of Project-specific Mitigation Measures AQ-1 through AQ-6. As detailed previously, the majority of the proposed Project’s emission exceedances are from consumer product and mobile sources and cannot feasibly be reduced below the SCAQMD thresholds by either the City or Project Applicant. Emissions from both consumer products and motor vehicles are controlled by state and federal standards and the City and Project Applicant have no control over these standards. Therefore, impacts from overlapping emissions of Phases 1 and 2 operations and Phase 3 construction would be significant and unavoidable. In addition, as shown in Table 5.1-22, emissions from buildout of the proposed Project would exceed SCAQMD thresholds for ROG despite implementation of Mitigation Measures AQ-1 through AQ-6. Therefore, impacts from operation of the proposed Project would be significant and unavoidable.

Further, because the emissions would exceed thresholds, the proposed Project would result in a conflict with implementation of the AQMP and impacts related to the AQMP would also be significant and unavoidable.

In addition, per SCAQMD's methodology, if an individual project would result in air emissions of criteria pollutants that exceeds the SCAQMD's thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants. Due to the proposed Project exceedance of the NO_x and ROG thresholds, impacts would be cumulatively considerable and significant and unavoidable.

Parks and Recreation

As detailed in Section 5.12, *Parks and Recreation*, the City currently has approximately 1.2 acres of public park and/or recreational space per every 1,000 residents which is below the City's GPU policy of 3 acres of parkland per 1,000 residents. Based on the City's General Plan policy to attain 3 acres of public park and/or recreational space per 1,000 residents, buildout of the proposed Project results in a need for approximately 27.7 additional acres of parkland to serve the 9,238 new residents of the Project site. The 13.1 acres of public park within a required 17.21 acres of common or private open space provided by the proposed Project would be approximately 10.49 acres less than the City's parkland standard, which would contribute to the existing citywide parkland deficiency. Although the proposed Project and cumulative projects would be required to provide park and recreational facilities, private open space, and/or pay in-lieu fees as required by the Municipal Code, the proposed Project's impacts related to the amount of parkland within the City would be significant and unavoidable and cumulatively considerable. Cumulative impacts related to parks and recreational facilities would be significant and unavoidable.

5.16.2 GROWTH INDUCEMENT

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 CEQA Guidelines Section 15126.2(d), 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 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.

CEQA Guidelines Section 15126.2(d) states that growth-inducing effects are not to be construed as necessarily beneficial, detrimental or of little significance to the environment. Therefore, the following 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 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 site consists of 41.13 gross acres of land that is currently developed with 16 commercial buildings totaling 465,063 SF with various commercial tenants. The site has large areas of surface parking and drive-aisles that surround the existing buildings on the site.

The proposed Project would redevelop the Project site to provide 3,750 multi-family residential units, 350,000 SF of commercial retail space, 250 hotel rooms, and a 200-room senior/continuum of care facility. As detailed in Section 5.10, *Population and Housing*, this is anticipated to generate approximately 1,092 employees at full occupancy, which would be approximately 14 percent of the GPU projected increase in employment from buildout of the South Bristol Street Focused Area; and therefore, would not result in unplanned employment growth.

Commercial spaces developed as part of the proposed Project could be utilized by current commercial tenants that occupy the Project site. In addition, the jobs that would be created by the proposed Project would provide new employment opportunities to existing residents of Santa Ana and the surrounding cities. It is anticipated that many of the new jobs that would be created by the proposed Project would be positions that do not require a specialized workforce. Thus, it is anticipated that these jobs could be filled by people who would already be living within Santa Ana, Tustin, Irvine, and surrounding communities and would not induce an unanticipated influx of new labor into the region. Thus, impacts related to increased growth through the provision of employment opportunities would be less than significant.

Overall, the Project site has historically provided employment opportunities and economic activity. The proposed Project would provide for a different variety of employment opportunities and economic activities that are consistent with development occurring and planned for in the Project vicinity. As detailed in Section 5.10, *Population and Housing*, the Project would result in a slight improvement in the jobs-housing balance and the residents and employees of the site 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 would reduce the effects of travel (such as traffic, air quality, greenhouse gas emissions, and noise impacts), which would be an indirect physical benefit of the proposed Project. In addition, the proposed Project includes the development of 3,750 multi-family units. Thus, the proposed Project provides housing and would not result in the need for additional housing. Therefore, the economic effects of the proposed Project would not result in the need for additional development to support the proposed Project and would not result in a substantial impact on the environment.

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 impact. A physical obstacle to growth typically involves the lack of public service infrastructure. The proposed Project would 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.

Water and Sewer Infrastructure. As described in Section 5.15, *Utilities and Service Systems*, the proposed Project would install a new onsite water infrastructure system that would connect to water pipelines adjacent to the site. The onsite improvements include construction of a 12-inch water main in Bristol Paseo and replacement of the existing 12-inch water line in Callen's Common with a new 12-inch main and connection of the new onsite infrastructure to the replacement line. The proposed Project also includes offsite infrastructure improvements that would replace a portion of the existing 12-inch water main in South Plaza Drive from MacArthur Boulevard to Sunflower Avenue with a 12-inch water main. The 12-inch water mains in Sunflower Avenue from South Plaza Drive to Bristol Street and Bristol Street from MacArthur Boulevard to Sunflower Avenue would be replaced "in-kind" with new 12-inch water mains. The water line improvements are consistent with conveyance needs for the area to improve aged existing infrastructure and does not expand water facilities in a manner that could accommodate additional unplanned growth.

The proposed Project would install a new onsite sewer system that would connect to the existing 78-inch Orange County Sanitation District (OCSD) sewer main in Sunflower Avenue, and no expansions to the offsite wastewater infrastructure would occur.

Drainage Infrastructure. As detailed in Section 5.15, *Utilities and Service Systems*, the proposed Project would install a storm drain system within the onsite roadways to convey the stormwater to proposed vegetated biotreatment systems on the site and then to the existing or improved City storm drain systems in MacArthur Boulevard, South Plaza Drive, Sunflower Avenue, and Bristol Street. The proposed Project would result in a reduction in stormwater drainage. However, the Project includes improvements to replace the existing 54-inch reinforced concrete pipe (RCP) in Sunflower Avenue to a 72-inch RCP for 2,230 linear feet and replace the existing 42-inch RCP in South Plaza Drive to a 60-inch RCP for 320 linear feet. These improvements would replace existing storm drain lines and would convey existing stormwater volumes and would not provide additional capacity to extend services or accommodate unplanned growth.

Overall, the proposed Project would redevelop the existing onsite infrastructure systems and replace multiple water and storm drainage lines during roadway improvements that are occurring as part of the Project. The new infrastructure would not provide additional capacity beyond what is needed to serve the proposed Project or was previously planned for by the City. In addition, because the proposed Project is within a developed area that is receiving services from existing 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, infrastructure improvements would not result in significant growth inducing impacts.

Remove obstacles to growth through changes in existing regulations pertaining to land development.

The Project site is located within the South Bristol Street Focus Area and has a General Plan land use designation of District Center-High (DC-5) and zoning designation of General Commercial (C-2) north of Callen's Common, and Commercial Residential (CR) and General Commercial (C-2) south of Callen's Common. 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.

The proposed Project would be consistent with the DC-5 General Plan land use designation and would include zoning amendments to replace the existing C-2 and CR zoning of the Project site with Related Bristol Specific Plan District, which would define the allowable uses and development standards within its boundaries and would provide the processes and procedures for the review and approval of development within the Specific Plan area.

The proposed Project is redevelopment of an already developed area that has been used for urban uses since the 1970s and is surrounded by urban development. The proposed Project would involve a change to development regulations and would result in onsite residents and additional onsite employees. However, the zoning and land use changes are parcel specific and would not result in growth outside of the Project site, because the areas are either completely developed or within development land use plans. Further the zoning changes to Related Bristol Specific Plan District would implement and be consistent with the DC-5 General Plan land use designation for the site. Changes to the Project site's zoning designations would not result in removing an obstacle to growth within the Project vicinity.

In addition, SCAG policies concerning regional growth-inducement are included as part of Section 5.8, *Land Use and Planning*, and Section 5.10, *Population and Housing*. As described in those sections, the growth anticipated by SCAG's projections are consistent with the increases in population (9,238 residents) and employees (1,092 employees) anticipated at full buildout and capacity of the proposed Project. Therefore, impacts related to growth from changes in existing regulations pertaining to land development would be less than significant.

Result in the Need to Expand One or More Public Service Facilities to Maintain Desired Levels of Service

The proposed Project is expected to incrementally increase the demand for fire protection and emergency response, police protection, school services, and recreational facilities and would not increase demand beyond that assumed for buildout of the South Bristol Street Focus Area within the GPU FEIR. However, as described in Section 5.11, *Public Services*, the proposed Project would not require development of additional facilities or expansion of existing facilities, with the exception of development of a Santa Ana Police Department substation onsite, to maintain existing levels of service. Impacts related to the construction and operation of the substation proposed onsite are included throughout this EIR analysis. Based on service ratios and build out projections, the proposed Project would not create a demand for services beyond the capacity of existing facilities. Therefore, an indirect growth inducing impact as a result of expanded or new public facilities that could support other development in addition to the proposed Project would not occur. The proposed Project would not have significant growth inducing consequences that would require the need to expand public services 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 amendments to the City of Santa Ana Zoning Ordinance, but those amendments are specific to the allowable land uses on the Project site itself. The proposed Project does 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 within this EIR to ensure that the proposed Project minimizes environmental impacts. The proposed Project would not involve any precedent-setting action that could encourage and facilitate other activities that significantly affect the environment.

Environmental Impacts of Induced Growth

All physical environmental effects from construction of the proposed Project have been analyzed in all technical sections of this EIR. For example, activities such as excavation, grading, and construction as required for the proposed mixed uses were analyzed in Sections 5.1, *Air Quality*, 5.5, *Greenhouse Gas Emissions*, 5.9, *Noise*, and 5.13, *Transportation*. Therefore, construction and operation of the proposed Project has been analyzed in this EIR and would be adequately mitigated, with the exception of air quality and recreation impacts, either through implementation of existing regulations and/or mitigation measures contained within Chapter 5 of this EIR. As discussed above, development of the Project site would result in significant and unavoidable impacts related to exceedance of SCAQMD criteria pollutant thresholds during both Project construction and operation and significant and unavoidable impacts related to parks and recreational facilities.

5.16.3 SIGNIFICANT IRREVERSIBLE EFFECTS

State CEQA Guidelines require the EIR to consider whether “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.... 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.” (CEQA Guidelines Section 15126.2(c)). “Nonrenewable resource” refers to the physical features of the natural environment, such as land, waterways, mineral resources, etc. These irreversible environmental changes may include current or future uses of non-renewable resources, and secondary or growth-inducing impacts that commit future generations to similar uses.

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 project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The proposed irretrievable commitments of nonrenewable resources is not justified (e.g., the project involves the wasteful use of energy).

The proposed Project would result in or contribute to the following irreversible environmental changes:

- Lands in the Project area that are currently developed with commercial retail uses would be committed to multi-family residential and commercial uses once the proposed buildings are constructed. Secondary effects associated with this irreversible commitment of land resources include:
 - Increased vehicle trips on surrounding roadways during operation of the proposed Project (see Section 5.13, *Transportation*).
 - Emissions of air pollutants associated with Project construction and operation (see Section 5.1, *Air Quality*).
 - Consumption of non-renewable energy associated with construction and operation of the proposed Project due to the use of automobiles, lighting, heating and cooling systems, appliances, and the like (see Section 5.3, *Energy*).
 - Increased ambient noise associated with an increase in activities and traffic from the Project (see Section 5.9, *Noise*).
- Construction of the proposed Project as described in Section 3.0, *Project Description*, would require the use of energy produced from non-renewable resources and construction materials.

In regard to energy usage from the proposed Project, as demonstrated in the analyses contained in Section 5.3, *Energy*, the proposed Project would not involve wasteful or unjustifiable use of non-renewable resources, and conservation efforts would be enforced during construction and operation of proposed development. The proposed development would incorporate energy-generating and conserving project design features, including those required by the California Building Code, California Energy Code Title 24, which specify green building standards for new developments. Further, the multi-family units would not include natural gas connections in compliance with Mitigation Measure GHG-2, which requires the proposed Project to meet CALGreen Tier 2 voluntary energy efficiency standards. In addition, as listed in Section 3.0, *Project Description* and Section 5.3, *Energy*, the proposed Project includes project design features that result in additional energy-efficiency. Project specific information related to energy consumption is provided in Section 5.3, *Energy*, of this EIR.

5.16.4 EFFECTS FOUND NOT TO BE SIGNIFICANT

CEQA Guidelines Section 15126.2(a) states that “[a]n EIR shall identify and focus on the significant effects on the environment”. However, 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. The following environmental issue areas would not be potentially impacted by the proposed Project, as detailed below.

Aesthetics

In 2013, the state of California enacted Senate Bill 743 (SB 743), which made several changes to CEQA for projects located in areas served by transit. Specifically, Public Resources Code Section 21099 provides 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.” Public Resources Code Section 21099 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 adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations.” Public Resources Code Section 21064.3 defines “major transit stop” as “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.” Public Resources Code Section 21099 defines an infill site as a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses. This state law supersedes the aesthetic impact thresholds set forth in CEQA Guidelines Appendix G.

The Project proposes a mixed-use infill development located in a TPA on an urban and developed site in the City of Santa Ana. As discussed in Section 5.13, *Transportation*, the City of Santa Ana Traffic Impact Study Guidelines Appendix A identifies that the Project site is located within a TPA. The Project area is served by six OCTA routes: Routes 55, 57, 76, 86, 150, and 553. Specifically, OCTA Route 57 serves as a high-quality bus stop with headways of 15 minutes or less during weekday peak commute hours. OCTA Bus Route 553 connects to the Anaheim Regional Transportation Intermodal Center and OCTA Bus Route 86 connects to the Irvine Train Station. In addition, as shown on Figure 5.13-3, SCAG identifies that the Project site is within a High Quality Transit Area. As such, the proposed Project is located on an infill site within a TPA as defined under Public Resources Code Section 21099.

Thus, the proposed Project's aesthetic (and parking) impacts are not considered significant on the environment pursuant to Public Resources Code Section 21099. Therefore, an assessment of the proposed Project's potential aesthetic impacts is not required.

Agriculture and Forestry Resources

a) Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The Project site is developed for urban uses and located in an area that is completely developed for urban uses. The California Department of Conservation Important Farmland mapping identifies the Project site as Urban and Built-Up land (CDC 2023). No areas of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would be affected by the proposed Project or converted to a non-agricultural use. Thus, impacts would not occur.

b) Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?

The Project site is developed for urban uses and located in an area that is completely developed for urban uses. The Project site is zoned General Commercial (C-2) north of Callen's Common and Commercial Residential (CR) and General Commercial (C-2) south of Callen's Common, is not in a Williamson Act contract, and vicinity is void of agricultural uses. Thus, impacts would not 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))?

The Project site is developed for urban uses and located in an area that is completely developed for urban uses. The Project site and vicinity is void of forest land or timberland. Thus, impacts would not occur.

d) Would the Project result in the loss of forest land or conversion of forest land to non-forest use?

The Project site is developed for urban uses and located in an area that is completely developed for urban uses. The Project site and vicinity is void of forest land or timberland. Thus, impacts would not 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?

As the Project site and vicinity do not include agricultural or forest resources, no other changes to the existing environment would occur from implementation of the proposed Project that could result in conversion of farmland to nonagricultural use or forest/timberland land to non-forest or non-timberland use. Thus, impacts related to agriculture and forestry resources would not occur.

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 Game or U.S. Fish and Wildlife Service?

The Project site is developed with 16 commercial buildings that are surrounded by paved surfaces. Grass turf, ornamental landscaping, and trees exist along the Project boundaries. Limited landscape trees are scattered throughout parking areas. The Project site is located within an urbanized area. No endangered, rare, threatened, or special status plant species (or associated habitats) or wildlife species designated by the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), or California Native Plant Society (CNPS) are known to occur on or adjacent to the site. As such, no impacts to candidate, sensitive, or special status species would occur.

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, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?

Riparian habitats are those occurring along the banks of rivers and streams. Sensitive natural communities are natural communities that are considered rare in the region by regulatory agencies, known to provide habitat for sensitive animal or plant species, or known to be important wildlife corridors. As described above, the Project site is heavily disturbed, graded, and consists of 16 commercial buildings and associated parking. According to the National Wetlands Inventory managed by the USFWS, the Project site does not contain riparian habitat (USFWS 2023). There are no riparian habitat or other sensitive natural communities as identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Therefore, no impact would occur.

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?

Wetlands are defined under the Federal Clean Water Act as land that is flooded or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that normally does support, a prevalence of vegetation adapted to life in saturated soils. Wetlands include areas such as swamps, marshes, and bogs. According to the National Wetlands Inventory managed by the USFWS, the Project site does not contain federally protected wetlands (USFWS 2023). In addition, the Project site does not contain any jurisdictional areas that would be subject to Section 404 of the Clean Water Act, and the proposed Project does not involve any hydrological interruption on any existing water resources. Therefore, the redevelopment of the Project site would not result in impacts to wetlands.

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?

Wildlife corridors are linear features that connect areas of open space and provide avenues for the migration of animals and access to additional areas of foraging. The Project site does not contain, or is not adjacent to, any wildlife corridors. The Project site is surrounded by roadways and developed areas. Areas of commercial, residential, public institutional, and additional roadways are located beyond the roadways adjacent to the site. Development of the site would not result in impacts related to established native resident or migratory wildlife corridor.

The Project site contains ornamental trees that would be removed during redevelopment of the site. Although the trees are mainly ornamental and nonnative, they may provide suitable habitat, including nesting habitat, for migratory birds. The Migratory Bird Treaty Act of 1918 (MBTA) implements the United States' commitment to four treaties with Canada, Japan, Mexico, and Russia for the protection of shared migratory bird resources. The MBTA governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. The USFWS administers permits to take migratory birds in accordance with the MBTA. The City requires that all projects comply with the MBTA by either avoiding grading activities

during the nesting season (typically February 15 to August 15) or conducting a site survey for nesting birds prior to commencing grading activities. Redevelopment of the site under the proposed Project would be required to comply with the provisions of the MBTA. Adherence to the MBTA regulations would ensure that if construction occurs during the breeding season, appropriate measures would be taken to avoid impacts to any nesting birds if found. With adherence to the MBTA requirements, less than significant impacts would occur.

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

Development within the Project site would be required to comply with the City's Municipal Code, including Article VII, Regulation for the Planting, Maintenance, and Removal of Trees. As part of the proposed Project, existing trees around the perimeter of the Project site and throughout the existing parking lot areas of the Project site would be removed and replaced with a variety of trees and ornamental landscaping. Therefore, the proposed Project would not conflict with the City's tree policy 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?

The Project site does not contain any natural lands that are subject to an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. As such, impacts would not occur.

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 active or inactive mines exist in the City of Santa Ana. The mapping by the California Geological Survey indicates that the Project site has a mineral resource zone designation of MRZ-3, meaning the significance of mineral deposits in the area cannot be evaluated from available data. Despite the data gap, the Project area is developed with urban uses and has no history of mining. Therefore, implementation of the proposed Project would not cause the loss of availability of mineral resources valuable to the region or state, and no impact would occur.

b) Would the Project result in the loss of availability of a locally-important mineral resource recovery site delineated on the general plan, specific plan or other land use plan?

No known valuable mineral resources exist on or near the Project site, and no mineral resource extraction activities occur on the site. In addition, the Project site is currently developed with commercial buildings and paved parking lots. Therefore, no impacts related to the loss of availability of a locally important mineral resource recovery site, as delineated on a local general plan, specific plan, or other land use plan, would occur as a result of Project implementation.

Wildfire

a) Would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?

According to the CAL FIRE Fire Hazard Severity Zone map, the Project site is not within an area identified as a Fire Hazard Area that may contain substantial fire risk or a Very High Fire Hazard Severity Zone (VHFHSZ) (Cal Fire 2023). The proposed Project would not substantially impair an adopted emergency response plan or emergency evacuation plan. As stated in Section 5.6, *Hazards and Hazardous Materials*, of

this EIR, the proposed Project would not physically interfere with an adopted emergency response plan or emergency evacuation plan. Further, the proposed Project would not obstruct or alter any transportation routes that could be used as evacuation routes during emergency events. In addition, during the operational phase of the proposed Project, site access would be required to comply with standards established by the City and OCFA. Additionally, the proposed Project does not include any characteristics (e.g., permanent road closures or long-term blocking of road access) that would substantially impair or otherwise conflict with an emergency response plan or emergency evacuation plan. Further, access to and from the Project site for emergency vehicles would be reviewed and approved by OCFA and the City as part of the Project approval process to ensure the proposed Project is compliant with all applicable codes and ordinances for emergency vehicle access. Therefore, the impacts related to emergency response and evacuation plans associated with construction of the proposed Project would be less than significant.

b) 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?

As stated previously, the Project site is not located within a VHFHSZ. Additionally, the Project site and surrounding area are currently developed, and therefore, lack the combustible materials and vegetation necessary for the uncontrollable spread of a wildfire.

The Project site is relatively flat and there are limited elevation changes in the Project vicinity. The Project proposes a mixed-use development in an area characterized by existing commercial, institutional, and residential uses. As such, the proposed Project itself would not exacerbate wildfire risks as compared to existing conditions because it is representative of the existing development in the area and is replacing existing commercial uses. Thus, no impact related to other factors that would expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire would occur from the Project.

c) 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?

As stated previously, the Project site is not located within a VHFHSZ. The proposed Project does not require the installation or maintenance of associated infrastructure (including roads, fuel breaks, emergency water sources, power lines, or other utilities) that would exacerbate fire risk or that would result in impacts to the environment. Although the proposed Project includes driveways and improvements to South Plaza Drive, MacArthur Boulevard, Bristol Street, Sunflower Avenue, and Callen's Common, these changes to public roadways would not exacerbate fire risk or result in ongoing impacts to the environment besides impacts discussed throughout this Draft EIR. Although utility improvements, including domestic water, recycled water, sanitary sewer, and storm drain lines proposed as part of the Project would be extended throughout the Project site, these utility improvements would be underground and would not exacerbate fire risk. Project design and implementation of utility improvements would be reviewed and approved by the City as part of the Project approval process to ensure the proposed Project is compliant with all applicable design standards and regulations. Therefore, the proposed Project would not include infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities), that would exacerbate fire risk or that would result in impacts to the environment.

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

As stated previously, the Project site is not located within a VHFHSZ. According to the FEMA FIRM for the Project area (06059C0279J), the Project site is located within “Zone X,” which is an area determined to be outside of the 0.2 percent annual chance flood. Therefore, there is a low potential for onsite flooding to occur.

Implementation of the proposed Project would result in a decrease of impermeable surfaces from 90 percent of the site to 86 percent of the site. Also, the proposed Project would maintain the existing drainage pattern; and drainage would be accommodated by vegetated biotreatment systems that have been sized to accommodate the DAMP required design storm. Therefore, the proposed Project would not result in impeding or redirecting flood flows by the addition of the impervious surfaces. As detailed previously, the City’s permitting process would ensure that the drainage system specifications adhere to the existing MS4 permit and DAMP regulations, and compliance with existing regulations would ensure that impacts would be less than significant.

5.16.5 DEGRADATION OF THE ENVIRONMENT

CEQA Guidelines Section 15065(a) requires a finding of significance if a project “has the potential to substantially degrade the quality of the environment.” In practice, this is the same standard as a significant effect on the environment, which is defined in CEQA Guidelines Section 15382 as “a substantial or potentially substantial adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.”

This Supplemental EIR, in its entirety, addresses and discloses all potential environmental effects associated with construction and operation of the proposed Specific Plan, including direct, indirect, and cumulative impacts to all the resources listed in the CEQA Guidelines Appendix G Checklist. As summarized in Table 1-2, *Summary of Impacts, Mitigation Measures, and Level of Significance*, this Draft Supplemental EIR discloses all potential environmental impacts, the level of significance, and requirements that are required by law, are incorporated as part of the Project Description, or mitigation measures. As described previously in Section 5.16.1, *Significant and Unavoidable Environmental Impacts*, the proposed Project would result in significant and unavoidable impacts related to conflict with an AQMP, regional air quality emissions, and parks and recreation. These impacts are consistent with those identified by the GPU FEIR.

5.16.6 IMPACTS ON SPECIES

CEQA Guidelines Section 15065(a)(1) states that a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to (1) substantially reduce the habitat of a fish or wildlife species; (2) cause a fish or wildlife population to drop below self-sustaining levels; or (3) substantially reduce the number or restrict the range of an endangered, rare, or threatened species. As described previously within Section 5.16.4, *Effects Found Not To Be Significant*, potential impacts related to the reduction of the fish or wildlife habitat, the reduction of fish or wildlife populations, and the reduction or restriction of the range of special-status species would not occur as a result of Project implementation. The Project site is located within an urbanized area and no endangered, rare, threatened, or special status plant or animal species occur or have the potential to occur within the Project site. Hence, no substantial evidence related to impacts on special status plant or animal species has been identified.

5.16.7 IMPACTS ON HISTORIC RESOURCES

CEQA Guidelines Section 15065(a)(1) states that a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to

eliminate important examples of a major period of California history or prehistory. CEQA Guidelines Section 15065(a)(1) amplifies Public Resources Code Section 21001(c) by requiring preservation of major periods of California history for the benefit of future generations. It also reflects the provisions of Public Resource Code Section 21084.1 in requiring a finding of significance for substantial adverse changes to historical resources. CEQA Guidelines Section 15064.5 establishes standards for determining the significance of impacts to historical resources and archaeological sites that are a historical resource.

Section 5.2, *Cultural Resources*, of this Draft Supplemental EIR fully addresses impacts related to California history and prehistory, historic resources, and archaeological resources. As detailed, the existing structures on the Project site were constructed between 1972 and 2004, and that although seven of the buildings are over 45 years old, they do not consist of historic resources. As detailed in Section 5.2, *Cultural Resources*, none of the existing buildings onsite meet any of the historic resource criteria and do not meet the definition of a historical resource pursuant to CEQA or the City of Santa Ana. In addition, it was determined that the site is not adjacent to any historic resources. Thus, impacts related to historic resources would not occur.

In addition, Section 5.2, *Cultural Resources*, describes that no archaeological resources have been identified within or immediately adjacent to the proposed Project site. However, due to the Holocene age of onsite soils, the presence of known archaeological and historical resources within 0.5-mile from the Project site, and the former presence of agricultural-related structures onsite, the Project area is sensitive for prehistoric and historic-period archaeological deposits. Therefore, the proposed Project would be required to implement GPU FEIR Mitigation Measures CUL-6 for an archaeologist to be retained for monitoring throughout Project ground disturbing activities, and Project-specific Mitigation Measures CUL-1 and CUL-2 that provide requirements for monitoring activities, which would reduce potential impacts to archaeological resources to a less than significant level.

5.16.8 LONG-TERM IMPACTS

CEQA Guidelines Section 15065(a)(2) states that a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals. Previous Section 5.16.3, *Significant Irreversible Effects*, addresses the short-term and irretrievable commitment of natural resources to ensure that the consumption is justified on a long-term basis. In addition, Section 5.16.1, *Significant and Unavoidable Environmental Impacts* and Table 1-2 identify all significant and unavoidable impacts that could occur, thereby creating a long-term impact on the environment. Lastly, previous Section 5.16.2, *Growth Inducement*, identifies any long-term environmental impacts caused by buildout of the proposed Specific Plan with respect to economic and population growth.

5.16.9 CUMULATIVE IMPACTS

CEQA Guidelines Section 15065 states that a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has potential environmental effects that are individually limited but cumulatively considerable. As defined in CEQA Guidelines Section 15065(a)(3), cumulatively considerable means “that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.” Cumulative impacts are addressed in Section 5.0, *Environmental Impact Analysis*, and within each of the environmental topical analysis sections (Sections 5.1 through 5.15) of this Draft Supplemental EIR. As described in Section 5.1, *Air Quality*, and Section 5.12, *Parks and Recreation*, impacts related to conflict with an AQMP, regional air quality emissions, and citywide park acreage would be cumulatively considerable, and significant and unavoidable after implementation of mitigation measures.

5.16.10 IMPACTS ON HUMAN BEINGS

As required by CEQA Guidelines Section 15065(a)(4), a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to cause substantial adverse effects on human beings, either directly or indirectly. Under this standard, a change to the physical environment that might otherwise be minor must be treated as significant if people would be significantly affected. This factor relates to adverse changes to the environment of human beings generally, and not to effects on particular individuals. While changes to the environment that could indirectly affect human beings would be represented by all of the designated CEQA issue areas, those that could directly affect human beings include air quality, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, population and housing, public services, parks and recreation, transportation, and utilities and service systems, which are addressed in Section 5.1, *Air Quality*, Section 5.4, *Geology and Soils*, Section 5.5, *Greenhouse Gas Emissions*, Section 5.6, *Hazards and Hazardous Materials*, Section 5.7, *Hydrology and Water Quality*, Section 5.9, *Noise*, Section 5.10, *Population and Housing*, 5.11 *Public Services*, Section 5.12, *Parks and Recreation*, Section 5.13, *Transportation*, and Section 5.15, *Utilities and Service Systems*.

REFERENCES

- California Department of Conservation Important Farmland mapping (CDC 2023). Accessed: <https://www.conservation.ca.gov/dlrp/fmmp>
- California Geological Survey Mineral Resource mapping (CGS 2023). Accessed: <https://maps.conservation.ca.gov/mineralresources/#webmaps>
- CalFire. Fire Hazard Severity Zones in State Responsibility Area. Accessed: <https://calfire-forestry.maps.arcgis.com/apps/webappviewer/index.html?id=4466cf1d2b9947bea1d4269997e86553>
- City of Santa Ana General Plan Update. April 2022. Accessed: <https://www.santa-ana.org/general-plan-documents/>
- City of Santa Ana General Plan Update Final Recirculated Program Environmental Impact Report. October 2021. Accessed: <https://www.santa-ana.org/general-plan-environmental-documents/>
- U.S. Fish and Wildlife Service. April 2023. "National Wetlands Inventory." Accessed: <https://www.fws.gov/wetlands/data/mapper.html>

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6. Alternatives

This section addresses alternatives to the proposed Project and describes the rationale for including them in the Supplemental EIR. The section also discusses the environmental impacts associated with each alternative and compares the relative impacts of each alternative to those of the proposed Project. In addition, this section describes the extent to which each alternative meets the Project objectives.

6.1 INTRODUCTION

The identification and analysis of alternatives to a project is a fundamental part of the environmental review process pursuant to CEQA. Public Resources Code (PRC) Section 21002.1(a) establishes the need to address alternatives in an EIR by stating that in addition to determining a project's significant environmental impacts and indicating potential means of mitigating or avoiding those impacts, "the purpose of an environmental impact report is . . . to identify alternatives to the project."

Pursuant to CEQA Guidelines Section 15126.6(a), an EIR must describe a reasonable range of alternatives to the proposed Project or to the Project's location that would feasibly avoid or lessen its significant environmental impacts while attaining most of the proposed Project's objectives. CEQA Guidelines Section 15126.6(b) emphasizes that the selection of project alternatives be based primarily on the ability to reduce impacts relative to the proposed project. In addition, CEQA Guidelines Section 15126.6(e)(2) requires the identification and evaluation of an "Environmentally Superior Alternative."

Pursuant to CEQA Guidelines Section 15126.6(d), discussion of each alternative presented in this section of the 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.

In addition, the "range of alternatives" to be evaluated is governed by the "rule of reason" and feasibility, which requires the EIR to set forth only those alternatives that are feasible and necessary to permit an informed and reasoned choice by the lead agency and to foster meaningful public participation (CEQA Guidelines Section 15126.6(f)). CEQA generally defines "feasible" to mean an alternative that is capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, technological, and legal factors and other considerations (CEQA Guidelines Sections 15091(a)(3), 15364).

Based on the CEQA requirements described above, the alternatives addressed in this 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 the CEQA Guidelines to consider a “no project” alternative; and to identify an “environmentally superior” alternative in addition to the no project alternative (*CEQA Guidelines* Section 15126.6(e)).

Neither the CEQA statute and the CEQA Guidelines, nor recent court cases specify a specific number of alternatives to be evaluated in an EIR. Rather, “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” (*CEQA Guidelines* 15126(f)).

6.2 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL IMPACTS

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. In order to identify alternatives that would avoid or substantially lessen any of the identified significant environmental effects of implementation of the proposed Project, the significant impacts must be considered, although it is recognized that alternatives aimed at reducing the significant and unavoidable impacts would also avoid or reduce impacts that were found to be less than significant or reduced to below a level of significance with implementation of mitigation measures.

The analysis in Chapter 5 of this Supplemental EIR determined that impacts related to the following would remain significant and unavoidable.

Air Quality

As detailed in Section 5.1, *Air Quality*, implementation of the proposed Project would result in short-term emissions of criteria air pollutants during proposed Project construction and long-term emissions of criteria air pollutants from vehicular emissions, natural gas consumption, landscaping, applications of architectural coatings, and use of consumer products. The emissions from the proposed Project are primarily from vehicle trips and use of consumer products. As described in Section 5.13, *Transportation*, Phase 1 of the proposed Project would generate 4,167 “net” daily trips, with 545 “net” trips in the AM peak hour and 359 “net” trips in the PM peak hour. Phase 2 of the proposed Project is forecast to generate 3,241 “net” daily trips, with 293 “net” trips in the AM peak hour and 271 “net” trips in the PM peak hour. Phase 3 of the proposed Project is forecast to generate 80 fewer “net” daily trips, with 381 “net” trips in the AM peak hour and 58 “net” trips in the PM peak hour. Operation of all three phases at buildout of the proposed Project is anticipated to generate 7,328 net daily trips, including 1,219 AM peak hour and 688 PM peak hour trips.

As shown in Table 5.1-9 in Section 5.1, *Air Quality*, emissions from construction of Phase 1 of the proposed Project would exceed the threshold for significance of NO_x. The majority of NO_x emissions during construction of Phase 1 would be derived from equipment and truck exhaust related to earthwork, excavation, and export of soils. Despite implementation of GPU FEIR Mitigation Measure AQ-1 and Project-specific Mitigation Measure AQ-2, emissions of NO_x would remain over the significance threshold for construction of Phase 1. Therefore, proposed Project construction emissions would be significant and unavoidable.

Also, Table 5.1-19 shows that overlapping emissions from operation of Phase 1 and construction of Phase 2 would exceed SCAQMD thresholds for ROG after implementation of Project-specific Mitigation Measures AQ-1 through AQ-6. The majority of the proposed Project’s ROG emission exceedances are from consumer products that the City and Project Applicant cannot control emissions of; and therefore, cannot feasibly be reduced below the SCAQMD thresholds. As a result, impacts from overlapping emissions of Phase 1 operations and Phase 2 construction would be significant and unavoidable.

Likewise, with the addition of Phase 3 construction, Table 5.1-21 shows that overlapping emissions from operation of Phase 1 and Phase 2 with construction of Phase 3 would exceed SCAQMD thresholds for ROG

and NO_x after implementation of Project-specific Mitigation Measures AQ-1 through AQ-6. As detailed previously, the majority of the proposed Project's emission exceedances are from consumer product and mobile sources and cannot feasibly be reduced by either the City or Project Applicant below the SCAQMD thresholds. Emissions from both consumer products and motor vehicles are controlled by state and federal standards and the City and Project Applicant have no control over these standards. Therefore, impacts from overlapping emissions of Phases 1 and 2 operations and Phase 3 construction would be significant and unavoidable. In addition, as shown in Table 5.1-22, emissions from buildout of the proposed Project would exceed SCAQMD thresholds for ROG despite implementation of Mitigation Measures AQ-1 through AQ-6. Therefore, impacts from operation of the proposed Project would be significant and unavoidable.

Further, because the emissions would exceed thresholds, the proposed Project would result in a conflict with implementation of the AQMP and impacts related to the AQMP would also be significant and unavoidable. In addition, per SCAQMD's methodology, if an individual project would result in air emissions of criteria pollutants that exceeds the SCAQMD's thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants. Due to the proposed Project's exceedance of the NO_x and ROG thresholds, impacts would be cumulatively considerable and unavoidable, consistent with the findings of the GPU FEIR.

Parks and Recreation

As detailed in Section 5.12, *Parks and Recreation*, the City currently has approximately 1.2 acres of public park and/or recreational space per every 1,000 residents which is below the City's GPU policy of 3 acres of parkland per 1,000 residents. Based on the City's General Plan policy to attain 3 acres of public park and/or recreational space per 1,000 residents, buildout of the proposed Project results in a need for approximately 27.7 additional acres of parkland to serve the 9,238 new residents of the Project site. The 13.1 acres of publicly accessible open space within the 17.21 acres of public and private open space provided by the proposed Project would be approximately 10.49 acres less than the City's parkland policy, which would contribute to the existing citywide parkland deficiency. As described by the GPU FEIR, the City is an urban and developed area and there are no undeveloped areas to be converted into new parkland. Although the proposed Project and cumulative projects would be required to provide park and recreational facilities, private open space, and/or pay in-lieu fees as required by the municipal code, the proposed Project's impacts related to the amount of parkland within the City would be significant and unavoidable and also cumulatively considerable. Thus, both Project and cumulative impacts related to parks and recreational facilities would be significant and unavoidable, consistent with the findings of the GPU FEIR.

6.3 PROJECT OBJECTIVES

The following objectives have been identified in order to aid decision makers in their review of the proposed Project and its associated environmental impacts.

- Implement the vision and objectives established in the City of Santa Ana General Plan for the South Bristol Street Focus Area to create a southern gateway to the City. 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;
 - Realize an intense, multi-story presence along the Bristol Street corridor; and
 - Provide for mixed-use opportunities while protecting adjacent, established low density neighborhoods.

- Allow for the flexible redevelopment of the underutilized Project site to provide a balanced mix of residential, retail, and hospitality 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.
- Transform an auto-oriented shopping plaza with large surface parking areas to a community which 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.
- Develop high quality residential spaces that reflect modern lifestyles, while responding to the need for additional housing at a higher density in an area of the City planned for growth.
- Develop a project with a mix of land uses that stimulate economic activity, commerce, and new housing opportunities in the South Bristol Street Focus Area.
- Have a positive contribution to the local economy through new capital investment, the creation of new jobs, and the expansion of the tax base.
- Create a walkable mixed-use development to encourage and enhance pedestrian activity within the Specific Plan area and the local community.
- Enhance non-vehicular activity by providing onsite and offsite pedestrian and bicycle facilities that link with existing facilities and transit services.
- Improve existing infrastructure to support the Related Bristol Specific Plan consistent with the General Plan conditions.
- Provide a project that contributes to the creation of a vibrant urban core for the City and takes advantage of the site's location within the South Coast Metro area. Provide a project that contains vibrant and attractive community amenities, recreational and open space areas, and gathering spaces that are directly accessible to residents and the community.
- Provide 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 MacArthur Boulevard, Bristol Street, Sunflower Avenue and South Plaza Drive.

6.4 ALTERNATIVES CONSIDERED BUT REJECTED

Pursuant to CEQA Guidelines Section 15126.6(c), an EIR must briefly describe the rationale for selection and rejection of alternatives. The Lead Agency may make an initial determination as to which alternatives are potentially feasible and, therefore, merit in-depth consideration, and which are infeasible and need not be considered further. Alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, need not be considered (CEQA Guidelines Section 15126.6(f), (f)(3)). This section identifies alternatives considered by the Lead Agency but rejected as infeasible and provides a brief explanation of the reasons for their exclusion. Alternatives may be eliminated from detailed consideration in the EIR if they fail to meet most of the project objectives, are infeasible, or do not avoid any significant environmental effects.

- **Alternate Site.** An alternate site for the proposed Project was eliminated from further consideration. The Project objectives are to redevelop the Project site consistent with the objectives of the City's GPU District Center-High (DC-5) land use designation and South Bristol Street Focus Area that includes new mixed-use development with housing in proximity to transit. In addition, due to the

urban and built out nature of the City, development of 3,750 multi-family residential units, 350,000 SF of commercial uses, a 250 room hotel, and 200 senior living/continuum of care units on another 41.13-acre underutilized site at a different location would likely require demolition of existing structures, require similar mitigation, and have similar impacts as the proposed Project. CEQA specifies that the key question regarding alternative site consideration is “whether any of the significant effects of the project would be avoided or substantially lessened by putting the project at another location.” Given the size and nature of the proposed Project and the Project objectives, it would be infeasible to develop and operate the proposed Project on an alternative site with fewer environmental impacts, while also implementing the City’s GPU. Therefore, the Alternative Site Alternative was rejected from further consideration.

- **No Project/Buildout of Existing General Plan Designation.** Buildout of the Project site at the maximum allowable density pursuant to the City’s General Plan DC-5 land use designation was eliminated from further consideration. The DC-5 land use designation allows for development of the Project site at a maximum 125 dwelling units per acre (du/ac) and a FAR of 5.0, which would allow for development of up to 8,733,780 SF of mixed uses, inclusive of residential uses. The proposed Project would result in approximately 91 du/ac and a FAR of 2.7. The No Project/Buildout of Existing General Plan Designation Alternative would result in an 85 percent intensification of uses onsite in comparison to the proposed Project. This alternative would require demolition of the same structures, require similar mitigation, and would increase air quality emissions and require more parkland in comparison to the proposed Project. Given the increased intensity of the No Project/Buildout of the Existing General Plan Designation Alternative, it would not result in fewer environmental impacts than the proposed Project. Therefore, the No Project/Buildout of Existing General Plan Designation Alternative was rejected from further consideration.

6.5 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 6.1, and are described below:

Alternative 1: No Project/No Build. Pursuant to Section 15126.6(e)(2) of the CEQA Guidelines, the 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.”

Therefore, under this alternative, no new development would occur on the Project site, and it would remain in its existing condition with 16 existing buildings totaling 465,063 SF functioning as a shopping center. In this alternative scenario, the 16 buildings are assumed to be fully operational as a shopping center with restaurants, a supermarket, banks, a dry cleaner, medical and dental offices, financial offices, and fitness uses. Hence, this alternative compares impacts of the proposed Project with the existing buildings operating at full capacity for shopping center uses.

Alternative 2: Reduced Project Alternative. Under this alternative, a reduction in commercial square footage would be developed onsite. After consideration of viable alternatives, it was determined that a reasonable decrease in development within the Project site would consist of a reduction of 100,000 SF of commercial retail and elimination of the 250-room hotel. This alternative would develop and operate 3,750

multi-family residential units, a 200-room senior living/continuum of care facility, and 250,000 SF of retail and restaurant commercial uses.

The reduction would result in the construction of 1,375 units, 200 senior living/continuum of care units, and 150,000 SF of commercial uses in Phase 1; including an administrative Police Department substation to be located within the commercial use area. Approximately 856 units and 65,000 SF of commercial uses would be constructed in Phase 2; and 1,519 units and 35,000 SF of commercial uses would be constructed in Phase 3.

To support the reduced Project under this alternative, the same ratio of parking spaces would be provided as proposed for the proposed Project. Under the Reduced Project Alternative, certain offsite improvements (including storm drain upgrades, restriping, and signal installation) are assumed, consistent with the proposed Project. In addition, the same amount of recreational facilities and common open space would be provided as the proposed Project.

Like the proposed Project, this alternative would require a zoning map amendment to amend the existing zoning of General Commercial (C-2) and Commercial Residential (CR) to Related Bristol Specific Plan District.

Alternative 3: Buildout of the Existing Zoning Designations Alternative. Under this alternative, no zoning map amendment would occur, and the Project site would be built out according to the existing zoning designations, as shown on Figure 3-5 in Section 3.0, *Project Description*. Therefore, this alternative would include development of the 23.96-acre area north of Callen's Common with only commercial uses pursuant to the C-2 zoning designation, which would result in approximately 782,774 SF at the maximum FAR of 0.75 with a building height of 35 feet. This alternative would provide surface parking and would not develop Bristol Central Park in the northern portion of the site.

Also, the 17.17-acre area south of Callen's Common would be redeveloped with commercial uses and mixed-uses pursuant to the CR zoning designation, which would result in approximately 250,000 SF of ground-floor commercial uses and office space, approximately 250 hotel rooms, approximately 200 senior living/continuum of care units, and 1,375 multi-family units would be developed to a maximum FAR of 5.0. Buildings at the northwestern corner of the CR zoned area would be a maximum of 50 feet, buildings at 200 feet from adjacent residential uses would be a maximum height of 100 feet. The buildings toward the southeast corner of the site would be a maximum of 25 stories. Parking within areas south of Callen's Common would be underground and open space within this area would be consistent with the proposed Project.

Overall, buildout of the Existing Zoning Alternative would develop the site with 682,774 SF more commercial space than proposed by the Project, totaling 1,032,774 SF of commercial uses (including an administrative Police Department substation), the same number of hotel rooms and senior living/continuum of care units as the proposed Project, and 2,375 fewer residential units for a total of 1,375 multi-family units.

6.6 ALTERNATIVE 1: NO PROJECT/NO BUILD

Under this alternative, the proposed Project would not be approved, and no development would occur. The existing 16 commercial buildings would remain and would be operational. In accordance with the CEQA Guidelines, the No Project/No Build Alternative for a development project on an identifiable property consists of the circumstance under which the project does not proceed. Section 15126.6(e)(3)(B) of the CEQA Guidelines states that, "In certain instances, the no project alternative means 'no build' wherein the existing environmental setting is maintained." In addition, the no project 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 it would remain in its existing condition with 16 existing buildings totaling 465,063 SF functioning as a shopping center. Under this alternative scenario, the buildings are fully operational as a shopping center with restaurants, a supermarket, banks, a dry cleaner, medical and dental offices, financial offices, and fitness uses. Hence, this alternative compares impacts of the proposed Project with the existing buildings operating at full capacity for shopping center uses. 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 CEQA Guidelines Section 15126.6(e) for evaluation of a no project alternative.

6.6.1 ENVIRONMENTAL IMPACTS

Air Quality

The No Project/No Build Alternative would not involve construction activities. Demolition of the existing structures and pavement would not occur. Excavation and grading of the site would not occur, and operation of construction equipment would not occur on the site. Therefore, the No Project/No Build Alternative would not generate any construction-related air pollutant emissions; and the significant and unavoidable construction impacts related to criteria emissions associated with the proposed Project would not occur under the No Project/No Build Alternative.

The Project site currently contains 16 commercial buildings and associated surface parking areas that generate air pollution associated with typical business operations. The No Project/No Build Alternative would continue operation of the existing buildings at full capacity, which results in an exceedance of NO_x, ROG, and CO thresholds. The estimated operation-source emissions from operation of the existing 465,063 SF of commercial retail uses on the Project site are provided on Table 6-1.

Table 6-1: Existing Commercial Retail Operational Air Quality Emissions

Source	Emissions (Maximum Pounds Per Day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Existing Operational Emissions						
Total Existing Operational Emissions	115.38	59.38	554.53	40.73	55.13	4.46
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	Yes	Yes	Yes	No	No	No

Source: Air Quality Assessment, Appendix B.

The No Project/No Build Alternative would avoid the proposed Project’s significant impact related to the net increase of a criteria pollutant, cumulatively considerable increases, and conflict with, or obstruct, implementation of the AQMP, as an increase in emissions over the existing condition would not occur. However, operation of the existing commercial retail buildings at full capacity would also result in exceedances of SCAQMD thresholds.

Cultural Resources

The existing buildings would remain onsite under the No Project/No Build Alternative. However, as determined in Section 5.2, *Cultural Resources*, none of the existing buildings meet any of the historic resource criteria and do not meet the definition of a historical resource pursuant to CEQA or the City of Santa Ana. In addition, the Project site is not adjacent to any historic structures. Therefore, consistent with the proposed Project, no impacts related to historic resources would occur from the No Project/No Build Alternative.

As discussed in Section 5.2, *Cultural Resources*, the Project area is sensitive for archaeological deposits. However, with implementation of GPU FEIR Mitigation Measure CUL-6 and Project-specific Mitigation Measures CR-1 and CR-2, impacts would be less than significant. The No Project/No Build Alternative would not involve excavation or other construction that has the potential to impact any subsurface resources. Thus, the No Project/No Build Alternative would not have the potential to impact archaeological resources or human remains, and no mitigation measures are required. Therefore, the No Project/No Build Alternative would result in a reduction in potential impacts to archaeological resources compared to the proposed Project.

Energy

The No Project/No Build Alternative assumes ongoing use of the existing buildings on the Project site, and similar to the proposed Project, this alternative requires energy. The service demand generated by the 16 commercial buildings would likely be lower than that of the proposed Project because a 24-hour resident population would not exist. However, the No Project/No Build Alternative would not provide upgraded energy efficient infrastructure, such as electrical, plumbing, and water efficient irrigation, as some of the existing onsite buildings were built as early as the 1970s. Overall, both the proposed Project and the No Project/No Build Alternative would result in less than significant impacts related to energy.

Geology and Soils

No new construction activities, including demolition and grading, would occur under the No Project/No Build Alternative. Therefore, there would be no potential for additional operational workers or residents, or new buildings and structures to experience seismic ground shaking, lateral spreading, subsidence, or collapse within the Project site, and no mitigation measures would be required. However, the buildings and structures that exist in the Project site were built as early as the 1970s, prior to current seismic safety codes; therefore, this alternative, by retaining older buildings and structures, would not provide increased structural engineering and could increase people's exposure to hazards from strong ground shaking compared to the proposed Project.

In addition, because the No Project/No Build Alternative does not involve grading or other ground disturbance activities, potential impacts to paleontological resources would not occur. Thus, impacts under this alternative would be reduced compared to the mitigation that is required for the proposed Project.

Greenhouse Gas Emissions

The No Project/No Build Alternative would avoid the short-term, construction related GHG emissions because no new buildings or uses would occur under this alternative; and an increase in operational GHG emissions would not occur. As detailed in Section 5.5, *Greenhouse Gas Emissions*, operation of the existing commercial retail buildings on the Project site at full capacity generates 16,138 MTCO_{2e}/yr of GHG emissions, which would be less than the 35,285 MTCO_{2e}/yr of emissions resulting from buildout of the proposed Project with implementation of mitigation.

The No Project/No Build Alternative would not result in an increase of GHG emissions, as no new development would occur, and mitigation would not be required. However, operation of the site as commercial uses would not be consistent with 2022 CARB Scoping Plan goals related to transportation electrification, VMT reduction, building decarbonization, or the Santa Ana Climate Action Plan goals related to development of multi-family uses in commercial corridors. As such, the No Project/No Build Alternative would not result in a net increase of GHG emissions, but would also not advance goals and policies set forth by the 2022 CARB Scoping Plan or Santa Ana Climate Action Plan. Because no mitigation would be required for the No Project/No Build Alternative, impacts would be less than the proposed Project.

Hazards and Hazardous Materials

The northern portion of the Project site contains TPH-d contaminated soils that are above residential screening levels but that could be reused onsite as backfill material or in non-residential areas. However, any soils that exceed both residential and commercial screening levels would need to be excavated and removed during Project excavation and grading activities as required by DTSC, California Integrated Waste Management Board, and/or the RWQCB. As a result, the proposed Project requires implementation of Mitigation Measure HAZ-1 that provides for a Soil Management Plan to be prepared by a qualified hazardous materials consultant that would detail procedures and protocols for excavation and disposal of onsite hazardous materials. The No Project/No Build Alternative would not require this mitigation because no construction activities would occur, and the existing onsite contaminated soils would remain in place. Thus, potential impacts related to removal and disposal of contaminated soils would be avoided by this alternative; however, the potentially contaminated soils would remain on the Project site.

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. This alternative would not introduce new sources of water pollutants from either construction on the site or new operations on the site because no new development or different uses would occur. However, this alternative would not include installation of new low-impact development (LID), source control, site design, and treatment control best management practices (BMPs) to minimize runoff and water pollution, which would be implemented as a part of the proposed Project. Further, as discussed in Section 5.7, *Hydrology and Water Quality*, the existing site contains 37.02 acres of impermeable surfaces, which is greater than the proposed Project's 35.37 acres of impermeable surfaces. In addition, this alternative would not initiate the improvements from the existing 54-inch and 60-inch stormwater reinforced concrete pipes (RCP) in Sunflower Avenue to a 72-inch RCP for 2,230 linear feet or to the existing 42-inch stormwater RCP in South Plaza Drive to a 60-inch RCP for 320 linear feet. 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 upgrades would be constructed in the future. Under the No Project/No Build Alternative, the beneficial improvements may not occur. Overall, hydrology and water quality impacts for the proposed Project and under this alternative scenario would be less than significant.

Land Use and Planning

The Project site has a General Plan Land Use designation of DC-5 (District Center-High) and is zoned C-2 (General Commercial) and CR (Commercial Residential). The No Project/No Build Alternative would operate the existing commercial buildings on the Project site, which would not include a Specific Plan or require a zoning map amendment. No impacts related to land use and planning would occur by retention of the existing onsite uses. The No Project/No Build Alternative would not physically divide an established community, as no changes to the site would occur. Also, the No Project/No Build Alternative would not result in conflict with existing policies, plans or regulations related to an environmental effect. However, this alternative would not implement the City's General Plan land use designation, South Bristol Street Focus Area objectives, or the SCAG policies related to high-density, infill development. This alternative also would not assist in improvement of the job/housing balance or reduction in vehicle miles traveled.

A zoning map amendment is required to change the zoning of the site from CR and C-2 to Related Bristol Specific Plan District. Development of the site for multi-family residential, hotel, senior living/continuum of care, and commercial uses would integrate into the planned development of the Project site pursuant to the DC-5 GPU designation and the surrounding development. The site would provide housing for local employees working nearby in Santa Ana, Costa Mesa, and Irvine. The site would also provide commercial retail services and restaurants for onsite residents and employees working nearby. The proposed zoning map amendment

from CR and C-2 to Related Bristol Specific Plan District would not conflict with a policy or plan adopted for the purpose of avoiding or mitigating an environmental effect. The CR and C-2 zoning designations do not provide avoidance of an environmental effect and the Related Bristol Specific Plan District provides for development flexibility to design a project that could avoid an environmental effect and fully implement the GPU. In addition, the proposed Project would implement many of the SCAG policies related to high-density, infill development, and improvement of the job/housing balance.

Based on the thresholds of significance, neither the No Project/No Build Alternative nor the proposed Project would have land use impacts. Therefore, impacts from the No Project/No Build Alternative would be consistent with impacts from the proposed Project.

Noise

The proposed Project would result in a short-term increase in noise from construction and a long-term increase in noise from operation. The short-term construction noise and vibration impacts would be less than significant with incorporation of mitigation; and operation of the proposed Project would also result in less than significant impacts.

The No Project/No Build Alternative would not generate 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; hence, traffic noise under this alternative would be less. Also, this alternative would not involve exterior construction related noise and vibration, as only potential tenant improvements to the existing buildings would occur under this alternative. As such, this alternative would not require implementation of GPU FEIR Mitigation Measure N-1 or Project-specific Mitigation Measure NOI-1, which is required for the proposed Project. Additionally, this alternative would not generate a residential population that could be impacted by roadway noise sources. However, consistent with the proposed Project, the noise generated under this alternative would be less than significant. Overall, the No Project/No Build would result in less than significant impacts related to noise and would result in less impacts than those from the proposed Project.

Population and Housing

The proposed Project would develop residential units that would have 9,238 residents based on a person per household factor of 2.41 and non-residential uses that would generate approximately 1,092 employees at full occupancy, which would be within SCAG's projected growth and the projected growth identified within the GPU South Bristol Street Focus Area and would improve the jobs-housing ratio and corresponding reduction in vehicle miles traveled would occur.

The No Project/No Build Alternative would continue the operation of the existing commercial buildings on the Project site. No residential development would occur and no increase in employees is assumed. This alternative 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 and High Quality Transit Areas. Additionally, the No Project/No Build Alternative would not result in a benefit to the jobs housing balance or reduction in vehicle miles traveled. However, the No Project/No Build Alternative would result in a less than significant impact related to population and housing, which is the same finding as for 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 onsite would require public services. However, the demand for fire services, police services, schools, and libraries generated by the existing buildings is lower than that of the proposed Project because a 24-hour resident population associated with the proposed Project would not exist, and the employee population onsite is much less than the number of residents and

employees that would be generated by the proposed Project. However, the Santa Ana Police Department substation that would be provided by the proposed Project would not occur by this alternative, and a new public service facility to serve the community would not be provided. Overall, both the proposed Project and the No Project/No Build Alternative would result in less than significant impacts related to public services.

Recreation

Based on the persons per household assumptions for multi-family residential development set forth in the GPU, the proposed Project would result in approximately 9,238 residents and 1,092 employees at full occupancy, which would generate a demand for park and recreation facilities. The proposed Project includes approximately 13.1 acres of publicly accessible open space and buildings with residential development would include private recreation facilities for residents. There are currently 69.48 acres of Santa Ana parkland within two miles of the Project site, including the 10.4-acre Bomo Koral Park, which is less than 10-minutes walking distance from the Project site. However, due to the existing deficiency in parkland in the City of Santa Ana and developed nature of the City, without undeveloped site or areas suitable for redevelopment for additional parkland, the proposed Project's contribution to cumulative impacts related to parks and recreation would be significant and unavoidable.

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. Therefore, the No Project/No Build Alternative would result in no new impacts related to parks and recreation. Also, this alternative would not result in a significant cumulative impact related to parks and recreation, which would occur from the proposed Project. Overall, impacts related to parks and recreation from the No Project/No Build Alternative would be less than those of the proposed Project. However, the No Project/No Build Alternative would not provide approximately 13.1 acres of new publicly accessible open space within the City.

Transportation

As described in Section 5.13, *Transportation*, the Project site is located within a TPA and a High Quality Transit Area. At full buildout, the proposed Project would result in a net increase of 7,328 average daily trips with an increase of 1,219 AM peak hour trips and 688 PM peak hour trips. The proposed Project would implement high-density mixed-use infill development that would improve the job/housing balance and thereby reduce the related vehicle miles traveled (VMT). The Project site is located near existing employment, services, and retail destinations, and is adjacent to six existing OCTA bus routes with high quality public bus stops. In addition, the proposed Project includes sidewalk, bikeway, and bus stop improvements, which provides additional non-vehicular options to reduce dependency on passenger vehicles cars, time spent in traffic, and more closely link residents to jobs and services in comparison to a project of similar size and land without close access to employment, service, retail, public transit, and freeways.

As shown on Table 5.13-3 in Section 5.13, *Transportation*, operation of the existing commercial uses generates 15,490 total vehicle trips, of which 351 are in the AM peak hour and 1,122 in the PM peak hour. The No Project/No Build Alternative would have 7,328 fewer vehicular trips per day, 1,219 fewer AM peak hour trips, and 688 fewer PM peak hour trips than the proposed Project. However, this alternative would not implement an infill development consistent with the General Plan, improve the job/housing balance, or reduce vehicle miles traveled. This alternative would not provide a mix of land uses within the boundaries of the Specific Plan area within a High Quality Transit Area and TPA. Overall, the No Project/No Build would result in less than significant impacts related to transportation, which would be the same level of impact as the proposed Project.

Tribal Cultural Resources

The proposed Project involves construction that could result in inadvertent impacts to unknown buried tribal cultural resources. Therefore, the proposed Project requires mitigation to reduce the potential impacts to these resources that could occur during construction. However, the No Project/No Build Alternative would not involve ground disturbance; no excavation or grading would occur. Hence, this alternative would not have the potential to impact unknown buried tribal cultural resources and mitigation is not required. Thus, potential impacts to tribal cultural resources under the No Project/No Build Alternative would be less than the proposed Project.

Utilities and Service Systems

The proposed Project would result in approximately 9,238 residents and 1,092 employees at full occupancy, which would require additional water and wastewater systems. As described in Section 5.15, *Utilities and Service Systems*, the proposed Project would provide offsite water and stormwater improvements. The No Project/No Build Alternative would operate the existing commercial buildings on the Project site with no increased demands on water or wastewater infrastructure would occur. However, this alternative would not include improvements to offsite water or drainage infrastructure, and this alternative would also not install LID and CALGreen/Title 24 compliant infrastructure. However, both the proposed Project and the No Project/No Build Alternative would result in less than significant impacts related to utilities and service systems.

6.6.2 CONCLUSION**Ability to Reduce Impacts**

The No Project/No Build Alternative would result in continued operation of the 16 commercial buildings on the Project site, and development and operation of proposed mixed-use development would not occur. As a result, the No Project/No Build Alternative would avoid the significant and unavoidable air quality and parks and recreation impacts that would occur from the proposed Project. Additionally, operational impacts would be reduced and the mitigation measures that are detailed in Chapter 5.0, which include measures related to air quality, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, noise, and tribal cultural resources, would not be required.

However, the benefits of the proposed Project would also not be realized, such as implementation of the General Plan DC-5 land use and South Bristol Street Focus Area objectives, improvements to offsite bicycle lanes, sidewalks, and stormwater infrastructure, CALGreen/DAMP/LID infrastructure improvements to storm water quality, and a reduction of drainage runoff from the area, removal of potentially contaminated soils, provision of housing within TPAs and High Quality Transit Areas, improvements to the jobs/housing balance, and the potential to reduce vehicle miles traveled. Overall, the No Project/No Build Alternative would not generate the significant impacts of the proposed Project and would not require implementation of mitigation measures; however, this alternative would not realize the benefits of the proposed Project.

Ability to Achieve Project Objectives

As shown in Table 6-5, the No Project/No Build Alternative would not meet any of the Project objectives, as listed below:

- The No Project/ No Build Alternative would not meet the South Bristol Street Focus Area objectives, as no new development would occur.
 - The No Project/ No Build Alternative would not capitalize on the success of the South Coast Metro area and would not implement new mixed use development;
 - The No Project/ No Build Alternative would not introduce mixed-use urban villages;
 - The No Project/ No Build Alternative would not realize an intense, multi-story presence along the Bristol Street corridor; and

- The No Project/ No Build Alternative would not provide mixed-use opportunities while protecting adjacent, established low density neighborhoods, as no new development would occur.
- The No Project/ No Build Alternative would not allow for flexible redevelopment of the underutilized Project site to provide a balanced mix of residential, retail, and hospitality 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.
- The No Project/ No Build Alternative would not transform an auto-oriented shopping plaza with large surface parking areas to a community which 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.
- The No Project/ No Build Alternative would not develop high quality residential spaces that reflect modern lifestyles, while responding to the need for additional housing at a higher density in an area of the City planned for growth.
- The No Project/ No Build Alternative would not develop a project with a mix of land uses that stimulate economic activity, commerce, and new housing opportunities in the South Bristol Street Focus Area.
- The No Project/ No Build Alternative would not have a positive contribution to the local economy through new capital investment, the creation of new jobs, and the expansion of the tax base.
- The No Project/ No Build Alternative would not create a walkable mixed-use development to encourage and enhance pedestrian activity within the Project site and the local community.
- The No Project/ No Build Alternative would not enhance non-vehicular activity by providing on-site and offsite pedestrian and bicycle facilities that link with existing facilities and transit services.
- The No Project/ No Build Alternative would not improve existing infrastructure.
- The No Project/ No Build Alternative would not provide a project that contributes to the creation of a vibrant urban core for the City and takes advantage of the site's location within the South Coast Metro area. The alternative would not provide a project that contains vibrant and attractive community amenities, recreational and open space areas, and gathering spaces that are directly accessible to residents and the community.
- The No Project/ No Build Alternative would not provide community benefits commensurate with the proposed Project including publicly accessible open space onsite and locations for public community events, as well as streetscape improvements along the Project site frontages of MacArthur Boulevard, Bristol Street, Sunflower Avenue and South Plaza Drive.

Overall, this alternative would not implement the GPU's goals for the DC-5 land use designation for the South Bristol Street Focus Area and would not meet any of the objectives of the proposed Project.

6.7 ALTERNATIVE 2: REDUCED PROJECT ALTERNATIVE

Under this alternative, a reduction in commercial square footage would be developed on the Project site. After consideration of viable alternatives, it was determined that a reasonable decrease in development within the Project would include a reduction of 100,000 SF of commercial retail and elimination of the 250-room hotel. This alternative would develop and operate 3,750 multi-family residential units, a 200-unit senior living/continuum of care use, and 250,000 SF of retail and restaurant commercial uses.

The reduction would result in the construction of 1,375 units, 200 senior living/continuum of care units, and 150,000 SF of commercial uses in Phase 1; including an administrative Police Department substation to be located within the commercial use area. Approximately 856 units and 65,000 SF of commercial uses would be constructed in Phase 2; and 1,519 units and 35,000 SF of commercial uses would be constructed in Phase 3.

This alternative would provide the same ratio of parking spaces in surface and underground parking structures. Hence, a proportional reduction in the total number of parking spaces provided would occur. The Reduced Project Alternative would include the same amount of recreational facilities and common open space as the proposed Project. In addition, certain offsite improvements (including storm drain upgrades, restriping, and signal installation) would be required and provided consistent with the proposed Project.

Like the proposed Project, this alternative would require a zoning map amendment to amend the existing zoning of General Commercial (C-2) and Commercial Residential (CR) to Related Bristol Specific Plan District.

6.7.1 ENVIRONMENTAL IMPACTS

Air Quality

The Reduced Project Alternative would incrementally reduce the amount and duration of construction activities compared to the proposed Project, which in turn would result in less overall construction-related air quality emissions. Also, the decrease in commercial square footage and elimination of the hotel would result in smaller structure size, and less building and architectural coating activities would be needed than those associated with the proposed Project. The Reduced Project Alternative would also require subsurface excavation for underground parking, which would result in similar haul trips and NO_x emissions as those resulting from construction of the proposed Project. Further, the demolition, site preparation, grading, drainage/ utilities/ subgrade, and paving phases would include the entire site; and therefore, construction of this alternative would have similar levels of maximum daily emissions. As discussed in Section 5.1, *Air Quality*, emissions from construction of Phase 1 of the proposed Project would exceed the threshold for significance of NO_x. The majority of NO_x emissions during construction of Phase 1 would be derived from equipment and truck exhaust related to earthwork, excavation, and export of soils. Despite implementation of GPU FEIR Mitigation Measure AQ-1 and Project-specific Mitigation Measure AQ-2, emissions of NO_x would remain over the significance threshold for construction of Phase 1. As construction of the Reduced Project Alternative would still require grading work, excavation, and export to the same or similar extent as the proposed Project, the alternative would also result in significant impacts related to emissions of NO_x. As air quality emissions are based on peak day levels pursuant to SCAQMD guidance, the Reduced Project Alternative, and its shorter construction schedule, would not result in a reduction of peak day NO_x emissions in a manner which would result in emissions levels below SCAQMD thresholds. Thus, like the proposed Project, the Reduced Project Alternative would result in significant and unavoidable construction impacts related to air quality.

As detailed in Section 5.1, *Air Quality*, buildout of the proposed Project, as detailed in Table 5.1-22, would result in net emissions of 60.28 lbs/day of ROG with mitigation, which would be 5.28 lbs/day over the SCAQMD regional threshold. As detailed in Table 6-2, the Reduced Project Alternative would result in 2,722 fewer daily vehicular trips than the proposed Project, resulting in fewer vehicular emissions. In addition, the Reduced Project Alternative would include 100,000 SF less commercial space and would have no hotel. This reduction in hotel rooms and square footage of commercial space, and daily vehicular trips would result in reducing ROG emissions by over 5.28 lbs/day as the reduced intensity of development would result in a proportional reduction in the use of consumer products onsite. However, like the proposed Project, the Reduced Project alternative would likely be required to adopt mitigation in order to reduce emissions of ROG to below the SCAQMD threshold. Thus, daily operational emissions from the Reduced Project Alternative would not exceed SCAQMD thresholds and would result in less than significant operational air quality impacts with mitigation incorporated. Therefore, the Reduced Project Alternative would generate less

overall air quality emissions than the proposed Project and would reduce the significant and unavoidable impact from operation of the proposed Project to a less than significant impact with mitigation. Thus, the Reduced Project Alternative would have a reduced impact related to air quality emissions and would avoid full buildout significant and unavoidable operational impacts related to exceedance of ROG emissions.

Cultural Resources

The Reduced Project Alternative would develop less commercial space and no hotel rooms in comparison to the proposed Project; but would require similar site preparation activities including grading and excavation as the proposed Project. Consistent with the findings for the proposed Project, no impacts related to historic resources would occur under this alternative scenario.

As discussed in Section 5.2, *Cultural Resources*, the Project area is sensitive for archaeological deposits. However, with implementation of GPU FEIR Mitigation Measure CUL-6 and Project-specific Mitigation Measures CR-1 and CR-2, impacts would be less than significant. Like the proposed Project, this alternative would require implementation of mitigation to reduce potential impacts to unknown archaeological resources onsite. Further, like the proposed Project, in the unanticipated event that human remains are found during construction activities compliance with California Health and Safety Code Section 7050.5 would ensure that human remains are treated with dignity and as specified by law and provide that the impact is less than significant. Overall, cultural resource impacts would be less than significant with mitigation consistent with the conclusions for the proposed Project.

Energy

The Reduced Project Alternative would redevelop the Project site to provide multi-family residential units, senior living/continuum of care units, and commercial uses that would require energy supplies. Like the proposed Project, the Reduced Project Alternative would be developed in compliance with the CALGreen/Title 24 requirements related to energy and would include similar features to reduce energy consumptions, such as electric vehicle charging stations. As described in Section 5.3, *Energy*, the proposed Project would not use large amounts of energy or fuel in a wasteful manner. Because the Reduced Project Alternative would not have a hotel, would have 100,000 SF less commercial square footage, and would implement the same energy efficient infrastructure, this alternative would demand less energy. However, neither the proposed Project nor the Reduced Project Alternative would use large amounts of energy or fuel in a wasteful or inefficient manner and impacts in both conditions would be less than significant. Therefore, impact levels resulting from implementation of the Reduced Project Alternative would be consistent with those from the proposed Project.

Geology and Soils

Grading and development of the entire Project area would still occur under the Reduced Project Alternative, and therefore, impacts to geology and soils would be similar to those that would be generated from the proposed Project. Under both scenarios, additional persons and structures on the site would be subject to risks associated with seismic ground shaking and geologic hazards. Therefore, the Reduced Project Alternative would be required to meet the same regulatory requirements and implement the same mitigation measures for geologic recommendations as the proposed Project. Therefore, impacts to geology and soils would be less than significant with mitigation, which is the same as the proposed Project.

The Reduced Project Alternative would result in the same potential to adversely affect any paleontological resources on the Project site as the proposed Project, despite the reduction in development size. Like the proposed Project, impacts to paleontological resources would be reduced through the implementation of mitigation. Thus, like the proposed Project, potential impacts to paleontological resources would also be less than significant with mitigation incorporated. Therefore, impact levels resulting from implementation of the Reduced Project Alternative would be consistent with those from the proposed Project.

Greenhouse Gas Emissions

The Reduced Project Alternative is anticipated to reduce the duration 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 Alternative would generate fewer emissions from operation in comparison to the Project because the hotel would not be developed, and 100,000 SF less commercial space would be developed compared to the proposed Project. The Reduced Project Alternative would also result in 2,722 fewer daily vehicular trips. Therefore, the Reduced Project Alternative would generate less GHG emissions than the proposed Project.

The net increase in GHG emissions that would be generated from the operation of the proposed Project is 25,931 MTCO_{2e} per year without mitigation and 19,147 MTCO_{2e} with mitigation (as shown in Table 5.5-4). Under the Reduced Project Alternative, the overall volume of GHG emissions would incrementally be reduced in comparison to the proposed Project. As the Reduced Project Alternative would implement a mixed-use development on an infill site within a High Quality Transit Area and TPA, the Reduced Project Alternative would also be consistent with the actions and strategies set forth in Appendix D of the 2022 CARB Scoping Plan and would be consistent with the 2022 CARB Scoping Plan and the state's GHG reduction goals. Also, like the Project, the Reduced Project Alternative would be required to implement mitigation measures in order to ensure consistency with applicable GHG reduction plans. Thus, like the proposed Project, potential impacts to GHG emissions would also be less than significant with mitigation incorporated. Therefore, impact levels resulting from implementation of the Reduced Project Alternative would be consistent with those from the proposed Project.

Hazards and Hazardous Materials

The demolition, site preparation, grading, drainage/utilities/subgrade, and paving phases that would be needed to develop the Reduced Project Alternative would include the entire site; and therefore, like the proposed Project it would require implementation of a soil management plan to detail procedures for removal and disposal of potentially contaminated soils during excavation and grading activities. As a result, this alternative would require implementation of Mitigation Measure HAZ-1 to ensure that the contaminated soils are removed and disposed of appropriately. In addition, Mitigation Measure HAZ-2 requires soil vapor assessments. These measures would be required for both the proposed Project and the Reduced Project Alternative to reduce potential impacts to a less than significant level.

Neither the Reduced Project Alternative nor the proposed Project would result in hazard impacts related to operations at John Wayne Airport (SNA), which is located 1.4 miles southeast of the Project site. The Project site is within the Airport Environs Land Use Plan (AELUP) Notification Area but is not the Airport Safety Zone or the Airport Impact Zone, and is outside of the 60 CNEL noise contours, as shown in Section 5.7, *Hazards and Hazardous Materials* (Figures 5.7-2 and 5.7-3). The Project site is located within the AELUP Notification area for SNA and FAR Part 77 Notification Imaginary Surface area (shown on Figure 5.6-1). Like the proposed Project, the Reduced Project Alternative would require AELUP notification. However, both the proposed Project and the Reduced Project Alternative would result in less than significant impacts related to SNA operational hazards. Overall, impacts related to hazards and hazardous materials from the Reduced Project Alternative would be less than significant with mitigation. Therefore, impact levels resulting from implementation of the Reduced Project Alternative would be consistent with those from the proposed Project.

Hydrology and Water Quality

The Reduced Project Alternative would result in similar construction impacts compared to the proposed Project because similar construction activities and soil disturbances would occur. As a result, the Reduced Project Alternative would implement standard BMPs through the City's standard permitting process to reduce potential impacts related to water quality during construction, which is similar to the proposed Project.

Therefore, both the Reduced Project Alternative and the proposed Project would have less than significant construction-related hydrology and water quality impacts.

The Reduced Project Alternative may result in a reduction of the total area of impervious surfaces compared to the proposed Project. Like the proposed Project, this alternative would introduce new sources of water pollutants from construction and operation activities. Additionally, this alternative would be required to include onsite drainage, LID, source control, site design, and treatment control BMPs that are similar to those included in the proposed Project that would reduce potential impacts to a less than significant level. Therefore, the Reduced Project Alternative would result in impacts to hydrology and water quality that are similar to those that would occur from the proposed Project. Overall, hydrology and water quality impacts would be less than significant. Therefore, impact levels resulting from implementation of the Reduced Project Alternative would be consistent with those from the proposed Project.

Land Use and Planning

The Reduced Project Alternative would implement a mix of land uses, including multi-family housing, senior living/continuum of care units, and retail commercial land uses on the Project site, and like the proposed Project would include a Specific Plan and would require a zoning map amendment to allow for the mix of uses throughout the Project site. Similar to the proposed Project, the Reduced Project Alternative would provide land uses that would integrate into the adjacent and nearby areas. However, the Reduced Project Alternative would provide fewer retail services for onsite residents and employees and would not include a hotel. The Reduced Project Alternative would implement the DC-5 land use designation and South Bristol Street Focus area to a lesser extent than the proposed Project. Therefore, 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. Overall, land use impacts from the Reduced Project Alternative would be less than significant. Therefore, impact levels resulting from implementation of the Reduced Project Alternative would be consistent with those from the proposed Project.

Noise

The Reduced Project Alternative would reduce the duration of construction activities compared to the proposed Project. However, this alternative would require implementation of GPU FEIR Mitigation Measure N-1 and Project-specific Mitigation Measure NOI-1 as it would result in construction throughout the Project site. With implementation of these measures, impacts related to construction noise from the Reduced Project Alternative would be less than significant. Thus, like the proposed Project construction noise and vibration impacts from the Reduced Project Alternative would be less than significant with implementation of mitigation.

The Reduced Project Alternative would generate noise sources from vehicular trips to and from the site and operation of onsite uses and mechanical equipment. However, the number of vehicular trips generated by this alternative would be less than those generated by the proposed Project; hence, traffic noise under this alternative would be incrementally less. Also, the number and type of mechanical systems needed for the Reduced Project Alternative would be similar to those used for the proposed Project. Thus, like the proposed Project, the operational noise levels generated under this alternative would be less than significant. Overall, noise impacts from the Reduced Project Alternative would be less than significant with implementation of mitigation. Therefore, impact levels resulting from implementation of the Reduced Project Alternative would be consistent with those from the proposed Project.

Population and Housing

The Reduced Project Alternative would reduce the commercial square footage by 100,000 SF and remove the hotel from the proposed development. Thus, this alternative would develop and operate 3,750 multi-family residential units, a 200-unit senior living/continuum of care facility, and 250,000 SF of retail and commercial uses.

This would result in the same number of residents as the proposed Project, which would result in 9,238 residents at full buildout based on the GPU FEIR person per household generation rate of 2.41. Based on the GPU generation factors of 1.0 employee per 500 SF of commercial space and the 2001 SCAG Employment Density Report of 1 employee per 1,351 SF for special care facilities, the Reduced Project Alternative would result in 667 employees, which would be a 425-employee reduction over the proposed Project's employment of 1,092 at full occupancy. The reduction in commercial space and elimination of the hotel under the Reduced Project Alternative scenario would be within SCAGs projected growth, like the proposed Project, but would provide fewer onsite jobs for a greater proportion of housing, which would result in a greater benefit to the jobs-housing balance. Thus, both the Reduced Project Alternative and the proposed Project would result in less than significant impacts related to population and housing. However, the Reduced Project Alternative would result in a reduced beneficial impact due to the provision of fewer onsite employment opportunities. Overall, population and housing impacts from the Reduced Project Alternative would be less than significant. Therefore, impact levels resulting from implementation of the Reduced Project Alternative would be consistent with those from the proposed Project.

Public Services

As described above, under the Reduced Project Alternative, the Project site would be redeveloped to provide 3,750 multi-family residential units, a 200-unit senior living/continuum of care facility, and 250,000 SF of commercial uses. Under this alternative scenario and the proposed Project, an administrative Police Department substation would be provided. Like the proposed Project, this alternative would also install security and fire protection systems, and because a new residential and employee population would exist on the Project site, additional calls for fire and police services would occur. Likewise, the residential population would generate students that would utilize local schools. Further, the residential population size associated with the Reduced Project Alternative would be the same as the proposed Project, and the Alternative would result in a similar demand for public services including fire, police, and schools. Because the proposed Project would result in less than significant impacts to public services, the smaller Reduced Project Alternative would also result in less than significant impacts. Therefore, impact levels resulting from implementation of the Reduced Project Alternative would be consistent with those from the proposed Project.

Parks and Recreation

The Reduced Project Alternative would include the same amount of onsite common open space and recreational amenities as the proposed Project. The 9,238 residents at full occupancy would utilize approximately 17.21 acres of private and common open space and recreational amenities, which would be the same as that provided by the proposed Project. As the population size associated with the Reduced Project Alternative would be the same as that associated with the proposed Project, the ratio of parkland to residents from the Project would remain the same. Therefore, the demand for offsite parks and recreation facilities would be the same as that resulting from the proposed Project.

Due to the existing deficiency in parkland in the City of Santa Ana and urban developed nature of the City, without sufficient available undeveloped sites or areas suitable for redevelopment for additional parkland, consistent with the findings for the proposed Project, the Reduced Project Alternative would result also result in significant and unavoidable impacts related to parks and recreation. Therefore, impact levels resulting from implementation of the Reduced Project Alternative would be consistent with those for the proposed Project.

Transportation

The Reduced Project Alternative would reduce the commercial square footage by 100,000 SF and remove the hotel from the proposed development. This would result in the development of 3,750 multi-family residential units, a 200-unit senior living/continuum of care facility, and 250,000 SF of commercial uses within a TPA and High Quality Transit Area. Given this alternative would be located within a TPA and would

be consistent with the 2020-2045 RTP/SCS land use and policies, it would screen out of a VMT analysis and could be presumed to result in less than significant impacts related to VMT. As shown on Table 6-2, the Reduced Project Alternative would generate 2,722 fewer daily vehicular trips than the proposed Project, resulting in 155 fewer AM peak hour trips and 187 fewer PM peak hour trips. This alternative would implement high-density, infill development, improve the job/housing balance, and reduce vehicle miles traveled, but not to the same extent as the proposed Project. In addition, this alternative would implement the same sidewalk, bicycle lane, and roadway improvements as the proposed Project. Therefore, impact levels resulting from implementation of the Reduced Project Alternative would be consistent with those from the proposed Project.

Table 6-2: Trip Comparison Reduced Project Alternative

	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Phase 1 Reduced Project							
Multi-family Units (1,375 DU)	6,243	117	392	509	327	209	536
Continuing Care Retirement Community (200 U)	494	20	11	30	15	23	38
Shopping Center (>150k) (150 TSF)	5,552	78	48	126	245	265	510
Internal Capture ³	-615	-11	-22	-33	-29	-26	-55
Non-Auto Trip Reduction (5% Daily, 5% AM, 5% PM)	-1,650	-9	-8	-17	-69	-86	-155
TDM Reduction (5% Daily, 5% AM, 5% PM)	-615	-11	-22	-33	-29	-26	-55
Pass-by Trips ²	-400	-6	-4	-10	-57	-49	-106
Total Phase 1	9,009	178	394	572	403	310	713
Phase 2 Reduced Project							
Multi-family Units (856 DU)	3,886	73	244	317	204	130	334
Shopping Center (>150k) (65 TSF)	2,406	34	21	55	106	115	221
Internal Capture ³	-800	-4	-5	-9	-36	-39	-75
Non-Auto Trip Reduction (5% Daily, 5% AM, 5% PM)	-314	-6	-13	-19	-15	-13	-28
TDM Reduction (5% Daily, 5% AM, 5% PM)	-314	-6	-13	-19	-15	-13	-28
Pass-by Trips ²	-173	-3	-1	-4	-25	-21	-46
Total Phase 2	4,691	88	233	321	219	159	378
Phase 3 Reduced Project							
Multi-family Units (1,519 DU)	6896	129	433	562	361	231	592
Shopping Center (>150k) (35 TSF)	1295	18	11	29	57	62	119
Internal Capture ³	-882	-4	-4	-8	-51	-31	-82
Non-Auto Trip Reduction (5% Daily, 5% AM, 5% PM)	-410	-7	-22	-29	-21	-15	-36
TDM Reduction (5% Daily, 5% AM, 5% PM)	-410	-7	-22	-29	-21	-15	-36
Pass-by Trips ²	-93	-2	-1	-3	-13	-12	-25
Total Phase 3	6,396	127	395	522	312	220	532
Total Reduced Project Alt.	20,096	393	1,022	1,415	934	689	1,623
Total Existing Site Trips	15,490	217	134	351	540	582	1,122
Total Net Existing Zoning Alt.	4,606	176	888	1,064	394	107	501
Alternative and Project Comparison							
Proposed Project (Net)	7,328	267	952	1,219	476	212	688

Reduced Project Alternative (Net)	4,606	176	888	1,064	394	107	501
Increase/Decrease in Trips	-2,722	-91	-64	-155	-82	-105	-187

TSF = Thousand Square Feet

DU = Dwelling Unit

RM = Rooms

PCE = Passenger Car Equivalent

U = Units

¹Trip rates from the Institute of Transportation Engineers, Trip Generation Manual, 11th Edition, 2021.

² Pass-by trips are made as intermediate stop on the way from one origin to a primary trip destination. Pass-by trips are attracted from traffic passing the site on adjacent streets, which contain direct access to the generator. For this analysis, the following pass-by reduction factors were used *Trip Generation, 11th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2021)*:

Shopping Center: Daily – Estimated to be 10% / AM Peak Hour – Estimated to be 10% / PM Peak Hour – 29%

³ Internal capture trip reduction is consistent with the *Trip Generation Handbook, 3rd Edition*, published by ITE (September 2017). Project trip generation was adjusted to account for internal capture between the residential and retail components of the Project.

Tribal Cultural Resources

The Reduced Project Alternative would require site preparation, grading, drainage/utilities/subgrade, which would disturb site soils to the same extent as the proposed Project; and therefore, this alternative would require implementation of Mitigation Measures TCR-1 through TCR-3 to reduce potential impacts related to unknown buried tribal cultural resources. Thus, impacts under both the Reduced Project Alternative and the proposed Project would be reduced to a less than significant level with incorporation of mitigation. Therefore, impact levels resulting from implementation of the Reduced Project Alternative would be consistent with those from the proposed Project.

Utilities and Service Systems

Like the proposed Project, the Reduced Project Alternative would generate additional demand related to water, wastewater, and solid waste. However, this alternative would result in a lower demand for domestic water supplies, wastewater treatment, and landfill capacity because no hotel rooms and a reduced commercial square footage would be developed. Consistent with the proposed Project, this alternative would include improvements to the existing stormwater drains in Sunflower Avenue and South Plaza Drive and improvements to the existing water mains in West MacArthur Boulevard, South Plaza Drive, Sunflower Avenue, and Bristol Street. Consistent with the proposed Project, the Reduced Project Alternative would install new onsite infrastructure that would connect to offsite infrastructure and impacts to utilities and service systems would be less than significant for both the proposed Project and the Reduced Project Alternative.

6.7.2 CONCLUSION

Ability to Reduce Impacts

The Reduced Project Alternative would have no hotel and 100,000 SF less commercial space, which would result in 2,722 fewer daily vehicular trips than the proposed Project. The reduction in vehicular emissions and consumer products from this alternative would reduce operational air quality impacts at Project buildout to a less than significant level with mitigation. However, significant and unavoidable impacts related to construction air quality emissions and Project and cumulative parkland deficiencies would continue to occur from implementation of this alternative. Additionally, the mitigation required for implementation of the proposed Project would continue to be required for the Reduced Project Alternative to reduce impacts related to air quality, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, noise, and tribal cultural resources to a less than significant level. Overall, although the volume of impacts would be less by the Reduced Project Alternative in comparison to the proposed Project, the Reduced Project Alternative would not eliminate all of the significant and unavoidable impacts of the proposed Project or eliminate the need for mitigation.

Ability to Achieve Project Objectives

As shown in Table 6-5, and listed below, the Reduced Project Alternative would meet the Project objectives, but not to the same extent as the proposed Project.

- The Reduced Project Alternative would meet the South Bristol Street Focus Area objectives, as new mixed use higher density would occur. However, it would not be met to the same extent as the Project because the alternative assumes no hotel and 100,000 SF less commercial space would be provided.
 - The Reduced Project Alternative would capitalize on the success of the South Coast Metro area to a lesser extent as less commercial space would be developed;
 - The Reduced Project Alternative would introduce a mixed-use urban village on the site; however, it would be reduced, as less commercial space and no hotel would be developed;
 - The Reduced Project Alternative would realize a less intense multi-story presence along the Bristol Street corridor; and
 - The Reduced Project Alternative would provide fewer mixed-use opportunities while protecting adjacent, established low density neighborhoods.
- The Reduced Project Alternative would adopt a zoning amendment which would allow for the flexible redevelopment of the underutilized Project site to provide a balanced mix of residential, retail, and hospitality 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.
- The Reduced Project Alternative would transform an auto-oriented shopping plaza with large surface parking areas to a community which 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 GPU, but not to the same extent as the proposed Project.
- The Reduced Project Alternative would develop high quality residential spaces that reflect modern lifestyles, while responding to the need for additional housing at a higher density in an area of the City planned for growth.
- The Reduced Project Alternative would develop a project with a mix of land uses that stimulate economic activity, commerce, and new housing opportunities in the South Bristol Street Focus Area; however, it would not do so to the same extent as the proposed Project.
- The Reduced Project Alternative would have less contribution to the local economy through new capital investment, the creation of new jobs, and the expansion of the tax base as it would result in a decrease in 100,000 SF of commercial space and provide no hotel.
- The Reduced Project Alternative would create a walkable mixed-use development to encourage and enhance pedestrian activity within the Specific Plan area and the local community.
- The Reduced Project Alternative would enhance non-vehicular activity by providing onsite and offsite pedestrian and bicycle facilities that link with existing facilities and transit services.
- The Reduced Project Alternative would improve existing infrastructure required to support the requirement of this alternative.
- The Reduced Project Alternative would provide a project that contributes to the creation of a vibrant urban core for the City and takes advantage of the site's location within the South Coast Metro area. The alternative would provide a project that contains vibrant and attractive community amenities, recreational and open space areas, and gathering spaces that are directly accessible to residents and the community.

- The Reduced Project Alternative would provide community benefits including publicly accessible open space onsite and locations for public community events, as well as streetscape improvements along the Project site frontages of MacArthur Boulevard, Bristol Street, Sunflower Avenue and South Plaza Drive.

Overall, the Reduced Project Alternative would meet the objectives of the proposed Project, but not to the same extent as the proposed Project.

6.8 ALTERNATIVE 3: BUILDOUT OF THE EXISTING ZONING ALTERNATIVE

Under this alternative, no zoning map amendment would occur, and the Project site would be built out according to the existing zoning designations, as shown on Figure 3-5 in Section 3.0, *Project Description*. The C2 zoning designation allows for general commercial development such as retail, professional offices, theaters, gyms, and restaurants, with heights not exceeding 35 feet at the FAR prescribed by the GPU land use designation of DC-5. The CR zoning designation allows for retail uses, professional offices, and single-family and multi-family residential. The CR designation sets a maximum height restriction of any building to equivalent to one-third of the distance between any point on the building at ground level to the nearest point of any land zoned exclusively for residential purposes. The CR designation defers to the GPU land use designation for density and FAR requirements.

Therefore, the Buildout of the Existing Zoning Alternative would include development of the 23.96-acre area north of Callen's Common with only commercial uses pursuant to the C2 zoning designation, which would result in approximately 782,774 SF at the maximum FAR of 0.75 with a building height of 35 feet (assumes only single-story buildings). This alternative would provide surface parking and would not develop Bristol Central Park in the northern portion of the site.

Under this alternative scenario, the 17.17-acre area south of Callen's Common would be redeveloped with commercial uses and mixed-uses pursuant to the CR zoning designation, which would result in approximately 250,000 SF of ground-floor commercial uses and office space, 250 hotel rooms, 200 senior living/continuum of care units, and 1,375 multi-family units up to a maximum FAR of 5.0. Buildings at the northwestern corner of the CR zoned area would be a maximum of 50 feet, buildings at 200 feet from adjacent residential uses would be a maximum height of 100 feet. The buildings toward the southeast corner of the site would be a maximum of 25 stories. The Buildout of the Existing Zoning Alternative assumes approximately 6.1 acres of publicly accessible open space within Bristol Plaza and Bristol Green, the Greenlink, and programmable roads and parkways in the southern portion of the site. Parking within areas south of Callen's Common would be underground and open space within this area would be consistent with that provided by the proposed Project.

Overall, buildout of the Existing Zoning Alternative would develop the site with 682,774 SF more commercial space than proposed by the Project, totaling 1,032,774 SF of commercial uses (including an administrative Police Department substation), the same number of hotel rooms and senior living/continuum of care units as the proposed Project, and 2,375 fewer residential units for a total of 1,375 multi-family units.

6.8.1 ENVIRONMENTAL IMPACTS

Air Quality

The Buildout of the Existing Zoning Alternative would require a similar amount, type, and length of construction activities as the proposed Project, which in turn would result in similar construction-related air quality emissions. The Existing Zoning Alternative would also require subsurface excavation for underground parking south of Callen's Common, which would result in similar haul trips and NO_x emissions as those resulting from construction of Phase 1 of the proposed Project. Also, the demolition, site preparation, grading, drainage/utilities/subgrade, and paving phases would include the entire site; and therefore, the alternative

would have the same level of maximum daily emissions. Thus, like the proposed Project, the Buildout of the Existing Zoning Alternative would result in significant and unavoidable impacts related to construction emissions.

However, operation of the Buildout of the Existing Zoning Alternative would result in substantially more daily vehicular trips than the proposed Project; and therefore, would result in a substantial increase in daily vehicular emissions than the proposed Project. As detailed in Table 6-3 below, the Buildout of the Existing Zoning Alternative would result in 9,541 more daily vehicular trips than the proposed Project and 16,869 more daily vehicular trips than the existing onsite land uses. This would result in an incremental increase in ROG and NO_x emissions over those generated from the proposed Project. Thus, daily operational emissions from the Buildout of the Existing Zoning Alternative would exceed SCAQMD thresholds and would result in greater significant and unavoidable impacts to both criteria pollutants and consistency with the AQMP than the proposed Project.

Cultural Resources

Like the proposed Project, the Buildout of the Existing Zoning Alternative would not impact known historic resources. Similar to the proposed Project, the Buildout of the Existing Zoning Alternative would change the site by removing the existing buildings and would require grading and surface excavation to site soils to a similar extent as the proposed Project. As discussed in Section 5.2, *Cultural Resources*, the Project area is sensitive for archaeological deposits. However, with implementation of GPU FEIR Mitigation Measures CUL-4 and CUL-6 and Project-specific Mitigation Measures CR-1 and CR-2, impacts would be less than significant. Therefore, similar to the proposed Project, this alternative would require implementation of mitigation to reduce potential impacts to unknown archaeological resources onsite. Further, like the proposed Project, in the unanticipated event that human remains are found during construction activities compliance with California Health and Safety Code Section 7050.5 would ensure that human remains are treated with dignity and as specified by law and provide that the impact is less than significant. Overall, cultural resource impacts would be less than significant with mitigation and would result in the same impact as the proposed Project.

Energy

The Buildout of the Existing Zoning Alternative would redevelop the Project site to provide 1,032,774 SF of commercial retail uses, 1,375 multi-family units, 250 hotel rooms, and 200 senior living/continuum of care units that would require energy supplies. Like the proposed Project, the Buildout of the Existing Zoning Alternative would be developed in compliance with the CALGreen/Title 24 requirements related to energy and would not use large amounts of energy in a wasteful or inefficient manner. However, due to the increase in commercial square footage, it is likely that the Buildout of the Existing Zoning would result in a higher energy demand than the proposed Project. Overall, both the proposed Project and the Buildout of the Existing Land Use and Zoning Alternative would not use large amounts of energy or fuel in an inefficient or wasteful manner, and impacts would be less than significant. However, the Buildout of the Existing Zoning Alternative would likely result in a higher energy demand than the proposed Project.

Geology and Soils

Grading and development of the entire Project site would still occur under the Buildout of the Existing Zoning Alternative, and therefore, impacts to geology and soils would be similar to those that would be generated from the proposed Project. The introduction of additional persons and the construction of new structures would be subject to risks associated with seismic ground shaking and geologic hazards. Therefore, the Buildout of the Existing Zoning Alternative would be required to meet the same regulatory requirements and implement the same mitigation measures for geologic recommendations as the proposed Project. Therefore, impacts to geology and soils would be less than significant with mitigation, which is the same as the proposed Project.

The Buildout of the Existing Zoning Alternative would result in a similar potential to adversely affect any paleontological resources on the Project site as the proposed Project based on the similar extent of construction and ground disturbance. Like the proposed Project, impacts to paleontological resources would be reduced through the implementation of mitigation. Thus, like the proposed Project, potential impacts to paleontological resources would also be less than significant with mitigation incorporated. Overall, paleontological resource impacts would be less than significant with mitigation and would result in the same impact as the proposed Project.

Greenhouse Gas Emissions

The Buildout of the Existing Zoning Alternative would require similar number and types of construction equipment with a similar duration of construction activities when compared to the proposed Project, which in turn would result in similar construction related GHG emissions. However, operation of the Buildout of the Existing Zoning Alternative would result in an increase in daily vehicular trips when compared to the proposed Project; and therefore, would result in increased operational GHG emissions associated with vehicle use.

The net increase in GHG emissions that would be generated from the operation of the proposed Project is 25,931 MTCO_{2e} per year without mitigation and 19,147 MTCO_{2e} with mitigation (as shown in Table 5.5-4). As the Buildout of the Existing Zoning Alternative would implement a greatly increased amount of commercial uses and decreased number of multi-family residential uses, the Buildout of the Existing Zoning Alternative would be consistent with the actions and strategies set forth in Appendix D of the 2022 CARB Scoping Plan as it would implement mixed-uses at a density of over 20 dwelling units per acre in a TPA to promote VMT reduction, would promote transportation electrification, and would support building decarbonization. In addition, the Buildout of the Existing Zoning Alternative would be consistent with the City of Santa Ana CAP and GPU, which in turn means the Buildout of the Existing Zoning Alternative would contribute to the net decrease in emissions associated with buildout of the GPU. However, like the proposed Project, the Reduced Project Alternative would be required to implement mitigation measures in order to ensure consistency with applicable GHG reduction plans. Thus, consistent with the proposed Project, potential impacts to GHG emissions would also be less than significant with mitigation incorporated. Overall, GHG impacts would be less than significant with mitigation, and would result in the same level of impact as the proposed Project.

Hazards and Hazardous Materials

Construction activities including but not limited to demolition, site preparation, grading, and construction would include the entire site; and therefore, like the proposed Project, it would require implementation of a soil management plan to detail procedures for removal and disposal of potentially contaminated soils during excavation and grading activities. As a result, this alternative would require implementation of Mitigation Measure HAZ-1 to ensure that the contaminated soils are removed and disposed of appropriately. In addition, Mitigation Measure HAZ-2 that requires soil vapor assessment would be required for this alternative. These measures would be required for both the proposed Project and the Buildout of the Existing Zoning Alternative to reduce potential impacts to a less than significant level.

Both the Buildout of the Existing Zoning Alternative and the proposed Project would result in less than significant hazard impacts related to operations at John Wayne Airport (SNA). SNA is located 1.4 miles southeast of the Project site. The Project site is within the AELUP Notification Area but is not within the Airport Safety Zone or the Airport Impact Zone, and is outside of the 60 CNEL noise contours, as shown in Section 5.7, *Hazards and Hazardous Materials* (Figures 5.7-2 and 5.7-3). However, the Project site is located within the AELUP Notification area for SNA and FAR Part 77 Notification Imaginary Surface area (shown on Figure 5.6-1). Given the height of the Buildout of the Existing Zoning Alternative, it would require FAA notification.

The Buildout of the Existing Zoning Alternative would result in a smaller residential population onsite and decreased building heights in the northern half of the site. Both the proposed Project and the Buildout of the

Existing Zoning Alternative would not result in significant impacts related to SNA operational hazards. Therefore, impacts related to hazards and hazardous materials from the Buildout of the Existing Zoning Alternative would be less than significant with mitigation and would result in the same impact level as the proposed Project.

Hydrology and Water Quality

The Buildout of the Existing Zoning Alternative would result in similar construction impacts compared to the proposed Project because similar construction activities and soil disturbances would occur. As a result, the Buildout of the Existing Zoning Alternative would implement standard BMPs through the City's standard permitting process to reduce potential impacts related to water quality during construction, which is consistent with the proposed Project. Therefore, construction related hydrology and water quality impacts from the Buildout of the Existing Zoning Alternative would also be less than significant.

The Buildout of the Existing Zoning Alternative would result in an increase in impervious surfaces compared to the proposed Project as the northern portion of the site would not include development of Bristol Central Park, and single-story commercial uses with surface parking would be developed instead. However, like the proposed Project, this alternative would introduce new sources of water pollutants from construction and operation activities. Additionally, this alternative would be required to include onsite drainage, LID, source control, site design, and treatment control BMPs, consistent with the proposed Project. Therefore, the Buildout of the Existing Zoning Alternative would also result in less than significant impacts to hydrology and water quality; however impervious areas would increase.

Land Use and Planning

The Buildout of the Existing Zoning Alternative would implement the existing zoning designations for the Project site and would not require a zoning map amendment. Therefore, this alternative would be consistent with the SCAG RTP/SCS and zoning code. However, the Buildout of the Existing Zoning Alternative would not implement the vision set forth in the GPU for the South Bristol Street Focus Area as mixed-uses could not be developed north of Callen's Common.

Similar to the proposed Project, the Buildout of the Existing Zoning Alternative would not divide an established community and would provide land uses that would integrate into the planned development of these adjacent and nearby areas. However, the reduced development would provide fewer housing opportunities including for local employees and fewer retail services for onsite residents and employees working nearby. Therefore, the Buildout of the Existing Zoning Alternative would implement many of the SCAG policies related to high-density, infill development. However, the Buildout of the Existing Zoning Alternative would not result in an improvement of the job/housing balance in comparison to the proposed Project. Overall, land use impacts from the Buildout of the Existing Zoning Alternative would be less than significant and would result in the same impact level as the proposed Project.

Noise

The Buildout of the Existing Zoning Alternative would likely result in the same amount and length of construction activities compared to the proposed Project and would result in similar overall construction-related noise and vibration. However, this alternative would require implementation of GPU FEIR Mitigation Measure N-1 and Project-specific Mitigation Measure NOI-1 as it would result in construction throughout the Project site. With implementation of these measures, impacts related to construction noise from the Buildout of the Existing Zoning Alternative would be less than significant. Thus, like the proposed Project construction noise and vibration impacts would be less than significant with mitigation under the Buildout of the Existing Zoning Alternative.

The number of vehicular trips generated by this alternative would be greater than those generated by the proposed Project and more than double the trips from existing onsite land uses; hence, traffic noise under

this alternative would be greater and would result in a doubling of trips over existing conditions which would result in a 3 dBA increase. As such, traffic noise impacts from Buildout of the Existing Zoning Alternative would be significant and unavoidable. Also, the number and type of mechanical systems needed for the Buildout of the Existing Zoning Alternative would be similar to those used for the proposed Project. Overall, noise impacts from the Buildout of the Existing Zoning Alternative would be significant and unavoidable, and greater than the proposed Project.

Population and Housing

As described above, the Buildout of the Existing Zoning Alternative would redevelop the Project site to provide 1,032,774 SF of commercial uses, 1,375 multi-family units, 250 hotel rooms, and 200 senior living/continuum of care units. This would result in approximately 3,314 residents at full occupancy, which is 35.9 percent of the proposed Project's 9,238 residents at full occupancy. Thus, this alternative would result in 5,924 fewer residents. The development of hotel rooms, senior living/continuum of care units, and increased commercial square footage would result in 2,458 employees, which would be a 1,366-employee (125 percent) increase over the proposed Project's employment of 1,092 at full occupancy. The reduction of residential units, the same number of senior living/continuum of care units and hotel rooms, and increase of commercial space by the Buildout of the Existing Zoning Alternative would be within SCAGs projected growth, like the proposed Project, but would provide less housing in the TPA, High Quality Transit Area, and near employment; and would provide more employment and less benefit to the jobs-housing balance.

Both the Buildout of the Existing Zoning Alternative and the proposed Project would result in less than significant impacts related to population and housing; however, the Buildout of the Existing Zoning Alternative would result in a reduced beneficial impact by providing fewer multi-family housing units, where fewer employees can travel to local employment opportunities in the jobs-rich area. Reducing the number of residential units on the Project site and increasing the commercial square footage, as would be done by the Buildout of the Existing Zoning Alternative would not improve the jobs-housing balance; but would also not exceed forecasted population or employment growth for the City. Overall, population and housing impacts from the Buildout of the Existing Zoning Alternative would be less than significant, and this alternative would result in the same impact level as the proposed Project.

Public Services

As described above, the Buildout of the Existing Zoning Alternative would redevelop the Project site to provide 1,032,774 SF of commercial retail and restaurant uses (including an administrative Police Department substation to be located within the commercial use area), 1,375 multi-family units, 250 hotel rooms, and 200 senior living/continuum of care units. Like the proposed Project, this alternative would install security and fire protection systems, and because a new residential and employee population would exist on the Project site, additional calls for fire and police services would occur. Likewise, the residential population would generate students that would utilize local schools. As the population size associated with the Buildout of the Existing Zoning Alternative would be approximately 5,924 residents (64.1 percent) lower than the proposed Project, this alternative would result in a lower demand for public services, including fire, police, and schools. Both the proposed Project and this alternative would result in less than significant impacts to public services. Therefore, public services impacts from the Buildout of the Existing Zoning Alternative would be less than significant, and this alternative would result in the same impact level as the proposed Project.

Parks and Recreation

The Buildout of the Existing Zoning Alternative would provide a reduced amount of common open space as the 2.5-acre Bristol Central Park would not be developed. The Buildout of the Existing Zoning Alternative scenario assumes approximately 6.1 acres of publicly accessible open space within Bristol Plaza and Bristol Green, the Greenlink, and programmable roads and parkways in the southern portion of the site.

Approximately 200 SF of common/private open space per unit would be developed on the southern portion of the site, which would result in the development of 6.31 acres of common open space. The 3,314 residents at full occupancy would utilize the 6.31 acres of common/private open space area and reduced indoor amenities that would be provided by the Buildout of the Existing Zoning Alternative. As the population size associated with the Buildout of the Existing Zoning Alternative would be reduced by approximately 5,924 residents (64.1 percent), the Buildout of the Existing Zoning Alternative would result in a ratio of parkland to residents of 1.9. Therefore, the ratio of parkland to residents would increase in comparison to that resulting from the proposed Project. Also, because the number of residents would be less under this alternative and a greater ratio of parkland to residents would be provided, it may result in an incrementally lower demand for offsite parks and recreation facilities. However, like the proposed Project, the Buildout of the Existing Zoning Alternative would not provide enough parkland to meet the City’s GPU policy to attain 3 acres per 1,000 residents and, due to the existing parkland deficiency and unavailability of sufficient acreage in the city to provide this amount of parkland in the City, impacts would remain significant and unavoidable. Overall, recreation impacts from the Buildout of the Existing Zoning Alternative would not avoid the significant and unavoidable impact of the proposed Project and would result in the same impact level as the proposed Project.

Transportation

As described in Section 5.13, *Transportation*, the proposed Project at full buildout would result in an increase of 7,328 average daily trips including 1,219 AM peak hour trips and 688 PM peak hour trips. The proposed Project would implement high-density, infill development that would improve the job/housing balance and thereby reduce the related vehicle miles traveled. The proposed Project is located near existing employment, services, and retail destinations, and is within a TPA, High Quality Transit Area, and adjacent to existing high quality bus stops, which would result in reduced dependency on cars and more closely link residents to jobs and services in comparison to a project of similar size and land without close access to employment, service, retail, and public transit. Given this Alternative would be located within a TPA and would be consistent with the 2020-2045 RTP/SCS land use and policies, it would screen out of a VMT analysis and could be presumed to result in less than significant impacts related to VMT. In addition, the proposed Project would include roadway, bike lane, and pedestrian access improvements, which would increase mobility.

The Buildout of the Existing Zoning Alternative would decrease the number of residential units, provide the same number of senior living/continuum of care units and hotel rooms, and would increase commercial space compared to the proposed Project. This would result in the development of 1,032,774 SF of commercial retail and restaurant uses, 1,375 multi-family units, 250 hotel rooms, and 200 senior living/continuum of care units. As shown on Table 6-3, when compared to the proposed Project, the Buildout of the Existing Zoning Alternative would generate 9,541 more net daily vehicular trips, 306 fewer AM peak hour trips, and 592 more PM peak hour trips. This alternative would implement high-density, infill development and reduce vehicle miles traveled but not to the same extent as the proposed Project. In addition, the Buildout of the Existing Zoning Alternative would not improve the jobs-housing ratio in the same manner as the proposed Project. Overall, impacts would be less than significant, and this alternative would result in the same level of impact as the proposed Project.

Table 6-3: Trip Comparison Buildout of Existing Zoning Alternative

	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Phase 1 Existing Zoning							
Multi-family Units (1,375 DU)	6,243	117	391	508	327	209	536
Continuing Care Retirement Community (200 U)	494	20	10	30	15	23	38

Hotel (250 RM)	1,998	65	51	116	75	73	148
Shopping Center (>150k) (250 TSF)	9,253	130	80	210	408	442	850
Internal Capture ³	-4,287	-5	-11	-16	-203	-157	-360
Non-Auto Trip Reduction (5% Daily, 5% AM, 5% PM)	-900	-17	-27	-44	-41	-38	-79
TDM Reduction (5% Daily, 5% AM, 5% PM)	-900	-17	-27	-44	-41	-38	-79
Pass-by Trips ²	-754	-11	-8	-19	-99	-103	-202
Total Phase 1	11,146	281	460	741	441	411	852
Phase 2 Existing Zoning							
Shopping Center (>150k) (782.774 TSF)	28,970	408	250	658	1,277	1,384	2,661
Internal Capture ³	-2,503	-8	-3	-11	-83	-129	-212
Non-Auto Trip Reduction (5% Daily, 5% AM, 5% PM)	-1,449	-20	-13	-33	-64	-69	-133
TDM Reduction (5% Daily, 5% AM, 5% PM)	-1,449	-20	-13	-33	-64	-69	-133
Pass-by Trips ²	-2,357	-36	-22	-58	-309	-324	-633
Total Phase 2	21,212	324	199	523	757	793	1,550
Total Existing Zoning Alt.	32,359	605	659	1,264	1,198	1,204	2,402
Total Existing Site Trips	15,490	217	134	351	540	582	1,122
Total Net Existing Zoning Alt.	16,869	388	525	913	658	622	1,280

Alternative and Project Comparison

Proposed Project (Net)	7,328	267	952	1,219	476	212	688
Existing Zoning Alternative (Net)	16,869	388	525	913	658	622	1,280
Increase/Decrease in Trips	+9,541	+121	-427	-306	+182	+410	+592

TSF = Thousand Square Feet

DU = Dwelling Unit

RM = Rooms

PCE = Passenger Car Equivalent

U = Units

¹ Trip rates from the Institute of Transportation Engineers, Trip Generation Manual, 11th Edition, 2021.

² Pass-by trips are made as intermediate stop on the way from one origin to a primary trip destination. Pass-by trips are attracted from traffic passing the site on adjacent streets, which contain direct access to the generator. For this analysis, the following pass-by reduction factors were used *Trip Generation, 11th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2021)*:

Shopping Center: Daily – Estimated to be 10% / AM Peak Hour – Estimated to be 10% / PM Peak Hour – 29%

³ Internal capture trip reduction is consistent with the *Trip Generation Handbook, 3rd Edition*, published by ITE (September 2017). Project trip generation was adjusted to account for internal capture between the residential, hotel, and retail components of the Project.

Tribal Cultural Resources

The Buildout of the Existing Zoning Alternative would require similar site preparation activities, which would disturb site soils to the same extent as the proposed Project; and therefore, this alternative would require implementation of Mitigation Measures TCR-1 through TCR-3 to reduce potential impacts related to unknown buried tribal cultural resources. Thus, impacts under both the Buildout of the Existing Zoning Alternative and the proposed Project would be reduced to a less than significant level with incorporation of mitigation. Overall, impacts to tribal cultural resources from the Buildout of the Existing Zoning Alternative would be less than significant with mitigation and would be the same level of impact as the proposed Project.

Utilities and Service Systems

The Buildout of the Existing Zoning Alternative would redevelop the Project site to provide a mix of land uses. Like the proposed Project, this alternative would include improvements to onsite and offsite utilities. Due

to the demand factors for commercial versus residential uses, the increase in commercial uses and decrease in residential uses would result in an overall decreased demand for utilities and service systems. Like the proposed Project, this alternative would likely require upgraded offsite water and the currently deficient stormwater drainage lines in surrounding streets. As such, the Buildout of the Existing Zoning Alternative would install new onsite infrastructure that would connect to surrounding offsite water, drainage, and wastewater infrastructure systems. Thus, impacts to utilities and service systems would be less than significant under both the proposed Project and the Buildout of the Existing Zoning Alternative.

6.8.2 CONCLUSION

Ability to Reduce Impacts

The Buildout of the Existing Zoning Alternative would redevelop the site with 1,032,774 SF of commercial retail and restaurant uses, 1,375 multi-family units, 250 hotel rooms, and 200 senior living/continuum of care units, which would result in 9,541 more daily vehicular trips than the proposed Project. The increase in vehicular trips from this alternative would increase the proposed Project's significant and unavoidable operational air quality impacts. As such, significant and unavoidable impacts related to air quality and parks and recreation would continue to occur from implementation of this alternative. Further, this alternative would result in significant and unavoidable impacts related to operational traffic noise. Additionally, the mitigation required for air quality, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, noise, and tribal cultural resources would continue to be required for the Buildout of the Existing Zoning Alternative.

Overall, the volume of impacts would be greater from the Buildout of the Existing Zoning Alternative in comparison to the proposed Project and the alternative would not eliminate any of the significant and unavoidable impacts of the proposed Project or eliminate the need for mitigation. Furthermore, the Buildout of the Existing Zoning Alternative would result in a reduced beneficial impact, as it would not provide as many multi-family units on the Project site; and therefore, would not improve the jobs-housing balance.

Ability to Achieve Project Objectives

As shown in Table 6-5, the Buildout of the Existing Zoning Alternative would meet the majority of the Project objectives, but not to the same extent as the proposed Project, as listed below:

- The Existing Zoning Alternative would meet the South Bristol Street Focus Area objectives, as new mixed use higher density would occur. However, it would not be met to the same extent as the Project, as 2,375 fewer housing units would be provided.
 - The Existing Zoning Alternative would capitalize on the success of the South Coast Metro area to a lesser extent as fewer housing units would be developed;
 - The Existing Zoning Alternative would introduce a mixed-use urban village on the site; however, it would be reduced, as fewer housing units would be developed;
 - The Existing Zoning Alternative would realize a less intense, reduced multi-story presence along the Bristol Street corridor; and
 - The Existing Zoning Alternative would provide fewer mixed-use opportunities while protecting adjacent, established low density neighborhoods.
- The Existing Zoning Alternative would not adopt a zoning amendment (Specific Plan), which would allow for the flexible redevelopment of the underutilized Project site to provide a balanced mix of residential, retail, and hospitality 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.

- The Existing Zoning Alternative would not transform an auto-oriented shopping plaza with large surface parking areas north of Callen's Common to a community which 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 GPU.
- The Existing Zoning Alternative would develop high quality residential spaces that reflect modern lifestyles, while responding to the need for additional housing at a higher density in an area of the City planned for growth, but not to the same extent as the proposed Project.
- The Existing Zoning Alternative would develop a project with a mix of land uses that stimulate economic activity, commerce, and new housing opportunities in the South Bristol Street Focus Area; however, it would not do so as envisioned by the proposed Project based on a different mix of land uses.
- The Existing Zoning Alternative would have less contribution to the local economy through new capital investment, the creation of new jobs, and the expansion of the tax base.
- The Existing Zoning Alternative would create a walkable mixed-use development to encourage and enhance pedestrian activity within the Project site area and the local community; however, it would not do so to the same extent as the proposed Project as the area north of Callen's Common would only be developed with commercial uses.
- The Existing Zoning Alternative would enhance non-vehicular activity by providing on-site and offsite pedestrian and bicycle facilities that link with existing facilities and transit services; however, it would not do so to the same extent as the proposed Project as the area north of Callen's Common would only be developed with commercial uses.
- The Existing Zoning Alternative would improve existing infrastructure to support Project site development.
- The Existing Zoning Alternative would provide a project that contributes to the creation of a vibrant urban core for the City and takes advantage of the site's location within the South Coast Metro area. The alternative would provide a project that contains vibrant and attractive community amenities, recreational and open space areas, and gathering spaces that are directly accessible to residents and the community. However, the alternative would not provide these benefits to the same extent as the proposed Project as the area north of Callen's Common would only be developed with commercial uses.
- The Existing Zoning Alternative would provide community benefits including publicly accessible open space onsite and locations for public community events, as well as streetscape improvements along the Project site frontages of MacArthur Boulevard, Bristol Street, Sunflower Avenue and South Plaza Drive; however, to a lesser extent as a reduction of park and recreation space would occur from this alternative.

Overall, the Existing Zoning Alternative would meet the objectives of the proposed Project, but not to the same extent as the proposed Project.

6.9 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. The No Project/No Build Alternative would avoid the significant and unavoidable air quality and recreation impacts of the proposed Project and all of the 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, greenhouse gas emissions, hazards and hazardous materials, noise, and tribal cultural resources.

However, the benefits of the proposed Project would also not be realized by the No Project/No Build Alternative. This alternative would not implement the General Plan DC-5 land use and South Bristol Street Focus Area objectives, provide improvements to offsite bicycle lanes, sidewalks, and water infrastructure, removal of potentially contaminated soils, provision of housing within TPAs and High Quality Transit Areas, improvements to the jobs/housing balance, and the potential to reduce vehicle miles traveled associated with providing an infill mixed-use development on the Project site. The No Project/No Build Alternative would not install CALGreen infrastructure or storm water filtration features in accordance with DAMP and LID design guidelines to filter and slow the volume and rate of runoff and would not include improved stormwater infrastructure or improvements to stormwater quality or reduction of drainage from the site.

Additionally, 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. (Emphasis added).

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 Alternative, which would involve redevelopment of the site with no hotel and 100,000 SF less commercial development for 3,750 multi-family residential units, a 200-room senior housing facility, and 250,000 living/continuum of care SF of retail and restaurant commercial uses.

The Reduced Project Alternative would result in 250 fewer hotel rooms and 100,000 SF less commercial space which would result in 2,722 fewer daily vehicular trips than the proposed Project. The reduction in vehicular emissions and consumer products from this alternative would reduce operational air quality impacts at full buildout to a less than significant level with mitigation. However, significant and unavoidable impacts related to construction air quality emissions and parkland deficiencies would continue to occur from implementation of this alternative. Additionally, the mitigation required for implementation of the proposed Project would continue to be required for the Reduced Project Alternative to reduce impacts related to construction and operational air quality, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, noise, and tribal cultural resources to a less than significant level.

Overall, although the volume of impacts would be less by the Reduced Project Alternative in comparison to the proposed Project, the Reduced Project Alternative would not eliminate all of the significant and unavoidable impacts of the proposed Project or eliminate the need for mitigation. In addition, the Reduced Project Alternative would result in a reduced beneficial impact. Eliminating the hotel and providing less commercial space on the Project site would result in fewer opportunities for the creation of new jobs.

In addition, Reduced Project Alternative would meet the Project objectives but not to the same extent as the proposed Project. While the Reduced Project Alternative would result in additional employment, it would not result in the creation of new jobs to the same extent as the proposed Project. The Reduced Project Alternative would introduce mixed-uses to the Project site and would provide for new economic activity, but to a lesser extent as no hotel would be developed and less commercial square footage would be developed. Overall, this alternative would meet the objectives of the proposed Project, but not to the same extent as the proposed Project.

Table 6-4 provides, in summary format, a comparison between the level of impacts for each alternative and the proposed Project. In addition, Table 6-5 provides a comparison of the ability of each of the alternatives to meet the objectives of the proposed Project.

Table 6-4: Impact Comparison of the Proposed Project and Alternatives

	Proposed Project	Alternative 1: No Project/No Build	Alternative 2: Reduced Project	Alternative 3: Buildout of the Existing Zoning
Air Quality	Significant and unavoidable	Less than the proposed Project; but exceeds thresholds	Same as the proposed Project for construction, significant and unavoidable Less for operation, less than significant with mitigation	Greater than the Project, significant and unavoidable
Cultural Resources	Less than significant with mitigation	Less, no mitigation required	Same as proposed Project, less than significant with mitigation	Same as proposed Project, less than significant with mitigation
Energy	Less than significant	Same as proposed Project, less than significant	Less than significant impact; less energy demand	Less than significant impact; greater energy demand
Geology and Soils	Less than significant with mitigation	Less, less than significant, no mitigation required	Same as proposed Project, less than significant with mitigation	Same as proposed Project, less than significant with mitigation
Greenhouse Gas Emissions	Less than significant with mitigation	Less, less than significant, no mitigation required	Less than significant with mitigation; reduced emissions	Same; less than significant with mitigation
Hazards and Hazardous Materials	Less than significant with mitigation	Less, no mitigation required	Same as proposed Project; less than significant with mitigation	Same as proposed Project; less than significant with mitigation
Hydrology and Water Quality	Less than significant	Same as proposed Project, less than significant	Same as proposed Project, less than significant	Less than significant impact; increase impervious surfaces
Land Use and Planning	Less than significant	Same as proposed Project, less than significant	Same as proposed Project; less than significant	Same as proposed Project; less than significant
Noise	Less than significant with mitigation	Less, no mitigation required	Same as proposed Project; less than significant with mitigation	Greater than proposed Project; significant and unavoidable
Population and Housing	Less than significant	Same as proposed Project, less than significant	Same as proposed Project, less than significant	Same as proposed Project, less than significant
Public Services	Less than significant	Less, but also less than significant	Same as proposed Project, but also less than significant	Less, but also less than significant
Parks and Recreation	Significant and unavoidable Project	Less, no impact	Same as proposed Project, significant and unavoidable	Less, but also significant and unavoidable Project

	Proposed Project	Alternative 1: No Project/No Build	Alternative 2: Reduced Project	Alternative 3: Buildout of the Existing Zoning
	and cumulative impacts		Project and cumulative impacts	and cumulative impacts
Transportation	Less than significant	Less, but also less than significant	Same as the proposed Project, less than significant	Same as the proposed Project, less than significant
Tribal Cultural Resources	Less than significant with mitigation	Less, no impacts, no mitigation required	Same as proposed Project; less than significant with mitigation	Same as proposed Project; less than significant with mitigation
Utilities and Service Systems	Less than significant	Less, but also less than significant	Less, but also less than significant	Less, but also less than significant
Reduce Significant Impacts of the Project?		Yes	Yes	No
Areas of Reduced Impact Levels Compared to the Project		6	1, reduces operational air quality emissions; however, construction air quality emissions remain significant and unavoidable	0, and increases significant and unavoidable air quality impacts

Table 6-5: Comparison of the Proposed Project and Alternatives Ability to Meet Objectives

	Proposed Project	Alternative 1: No Project/No Build	Alternative 2: Reduced Project	Alternative 3: Buildout of the Existing Zoning
Implement the vision and objectives established in the City of Santa Ana General Plan for the South Bristol Street Focus Area to create a southern gateway to the City.	Yes	No	Yes, but not to the same extent as the proposed Project	Yes, but not to the same extent as the proposed Project
Capitalize on the success of the South Coast Metro area.	Yes	No	Yes, but not to the same extent as the proposed Project	Yes, but not to the same extent as the proposed Project
Introduce mixed-use urban villages and encourage experimental commercial uses that are more walkable, bike friendly, and transit oriented.	Yes	No	Yes, but not to the same extent as the proposed Project	Yes, but not to the same extent as the proposed Project
Realize an intense, multi-story presence along the Bristol Street corridor.	Yes	No	Yes	Yes, but not to the same extent as the proposed Project
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	Yes, but not to the same extent as the proposed Project
Allow for the flexible redevelopment of the underutilized Project site to provide a balanced mix of residential, retail, and hospitality uses in the South Bristol Street Focus Area that integrate into the existing urban	Yes	No	Yes	No

	Proposed Project	Alternative 1: No Project/No Build	Alternative 2: Reduced Project	Alternative 3: Buildout of the Existing Zoning
systems and provide a safe and attractive environment for living and working, as encouraged by the GPU.				
Transform an auto-oriented shopping plaza with large surface parking areas to a community which 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	Yes, but not to the same extent as the proposed Project
Develop high quality residential spaces that reflect modern lifestyles, while responding to the need for additional housing at a higher density in an area of the City planned for growth.	Yes	No	Yes	Yes, but not to the same extent as the proposed Project
Develop a project with a mix of land uses that stimulate economic activity, commerce, and new housing opportunities in the South Bristol Street Focus Area.	Yes	No	Yes, but not to the same extent as the proposed Project	Yes, but not to the same extent as the proposed Project
Have a positive contribution to the local economy through new capital investment, the creation of new jobs, and the expansion of the tax base.	Yes	No	Yes, but not to the same extent as the proposed Project	Yes, but not to the same extent as the proposed Project
Create a walkable mixed-use development to encourage and enhance pedestrian activity within the Specific Plan area and the local community.	Yes	No	Yes	Yes, but not to the same extent as the proposed Project
Enhance non-vehicular activity by providing on-site and offsite pedestrian and bicycle facilities that link with existing facilities and transit services.	Yes	No	Yes	Yes, but not to the same extent as the proposed Project
Improve existing infrastructure to support the Related Bristol Specific Plan consistent with the General Plan conditions.	Yes	No	Yes	Yes, but not to the same extent as the proposed Project
Provide a project that contributes to the creation of a vibrant urban core for the City and takes advantage of the site's location within the South Coast Metro area. Provide a project that contains vibrant and attractive community amenities, recreational and open space areas, and gathering spaces that are directly accessible to residents and the community.	Yes	No	Yes	Yes, but not to the same extent as the proposed Project
Provide 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 MacArthur Boulevard, Bristol Street, Sunflower Avenue and South Plaza Drive.	Yes	No	Yes	Yes, but not to the same extent as the proposed Project

7. EIR Preparers and Persons Contacted

7.1 EIR Preparers

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