MISSION POINT PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT

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Contents

List of Tables vii
List of Figures xi
List of Acronyms and Abbreviations xii

Executive Summary 1
Introduction 1
Project Overview 1
Impacts and Mitigation Measures 2
Project Alternatives 2
Known Areas of Controversy 4
Aesthetics 4
Biological Resources 4
Cultural Resources 4
Hydrology/Flood Hazards 4
Hazardous Materials 5
Land Use 5
Transportation 5
Population and Housing 6
Public Services 6
Draft EIR Conclusions, including Issues to Be Resolved 6
How to Comment on This Draft EIR 6
Chapter 1 **Introduction 1-1**
1.1 Purpose of This Environmental Impact Report 1-1
1.2 Project Overview 1-1
1.3 CEQA Process 1-2
Notice of Preparation 1-2
Draft EIR 1-3
1.4 Report Organization 1-4
Chapter 2 **Project Description 2-1**
2.1 Project Location and Setting 2-1
2.2 Project Objectives 2-4
2.3 Project Characteristics 2-6
Proposed Site Plan 2-8
Site Access, Circulation, and Parking 2-11

Open Space, Landscaping, and Site Design 2-16
Activity and Employment 2-24
Utilities 2-25
Sustainability Features 2-32
2.4 Project Schedule and Construction 2-34
Project Construction Schedule 2-34
Construction Equipment, Staging, and Employees 2-35
Building Foundations/Underground Garage/Podium Parking 2-36
Construction Spoils, Debris, and Materials 2-36
2.5 Project Entitlements 2-37
General Plan Amendment 2-37
Rezoning 2-37
2.6 Project Approvals 2-37
City Approvals 2-37
Approvals by Responsible Agencies 2-38
Chapter 3 **Environmental Impact Analysis 3-1**
Organization of This Chapter 3-1
CEQA Methodology 3-1
Classification of Impacts 3-2
Mitigation Measures 3-2
Resource Topics with No Impact, Requiring No Further Analysis 3-3
Aesthetics 3-3
Agricultural and Forestry Resources 3-4
Mineral Resources 3-5
Wildfire 3-6
Environmental Baseline 3-6
Approach to Cumulative Impacts 3-7
3.1 Land Use and Planning 3.1-1
Existing Conditions 3.1-1
Environmental Impacts 3.1-11
Cumulative Impacts 3.1-20
3.2 Transportation 3.2-1
Existing Conditions 3.2-4
Environmental Impacts 3.2-16
Cumulative Impacts 3.2-42
3.3 Air Quality 3.3-1
Existing Conditions 3.3-1

Environmental Impacts 3.3-17
Cumulative Impacts 3.3-48
3.4 Greenhouse Gas Emissions 3.4-1
Existing Conditions 3.4-1
Environmental Impacts 3.4-14
Cumulative Impacts 3.4-31
3.5 Energy 3.5-1
Existing Conditions 3.5-1
Environmental Impacts 3.5-10
Cumulative Impacts 3.5-17
3.6 Noise 3.6-1
Overview Noise and Sound 3.6-1
Existing Conditions 3.6-4
Environmental Impacts 3.6-13
Cumulative Impacts 3.6-41
3.7 Cultural Resources 3.7-1
Existing Conditions 3.7-1
Environmental Impacts 3.7-10
Cumulative Impacts 3.7-15
3.8 Biological Resources 3.8-1
Existing Conditions 3.8-1
Environmental Impacts 3.8-10
Cumulative Impacts 3.8-17
3.9 Geology and Soils 3.9-1
Existing Conditions 3.9-1
Environmental Impacts 3.9-11
Cumulative Impacts 3.9-21
3.10 Hydrology and Water Quality 3.10-1
Existing Conditions 3.10-2
Environmental Impacts 3.10-15
Cumulative Impacts 3.10-31
3.11 Hazards and Hazardous Materials 3.11-1
Existing Conditions 3.11-1
Environmental Impacts 3.11-14
Cumulative Impacts 3.11-23
3.12 Population and Housing 3.12-1

Existing Conditions 3.12-1
Environmental Impacts 3.12-8
Cumulative Impacts 3.12-12
3.13 Public Services and Recreation 3.13-1
Existing Conditions 3.13-1
Environmental Impacts 3.13-12
Cumulative Impacts 3.13-18
3.14 Tribal Cultural Resources 3.14-1
Existing Conditions 3.14-1
Environmental Impacts 3.14-6
Cumulative Impacts 3.14-7
3.15 Utilities and Service Systems 3.15-1
Existing Conditions 3.15-1
Environmental Impacts 3.15-18
Cumulative Impacts 3.15-28
Chapter 4 **Other CEQA Considerations 4-1**
4.1 Significant and Unavoidable Environmental Impacts 4-1
Significant and Unavoidable Project-Level Impacts 4-1
Significant and Unavoidable Cumulative Impacts 4-1
4.2 Significant Irreversible Environmental Changes 4-2
4.3 Growth-Inducing Impacts 4-3
4.4 Cumulative Impacts 4-4
4.5 Urban Decay 4-5
Methodology and Definition of Urban Decay 4-5
Residential Expenditures 4-6
Worker Expenditures 4-8
Total Retail Expenditures and Sales per Square Foot 4-10
Conclusions 4-10
Chapter 5 **Alternatives Analysis 5-1**
5.1 Introduction 5-1
5.2 Project Objectives and Environmental Impacts 5-2
Significant/Unavoidable and Significant Project-Level Impacts 5-3
5.3 Description of Alternatives Considered 5-4
No Project Alternative (Continuation of Existing Uses) 5-10
Code Compliant Alternative 5-10
Reduced Scale Alternative 5-12
Reduced Office/Increased Housing Alternative 5-13

Construction Sequence Alternatives 5-14
5.4 Attainment of Project Objectives 5-16
No Project Alternative 5-16
Code Compliant Alternative 5-20
Reduced Scale Alternative 5-20
Reduced Office/Increased Housing Alternative 5-21
Construction Sequence Alternatives 5-22
5.5 Alternatives Considered but Rejected 5-22
Alternative Site Locations 5-23
Proposed 2018 Project 5-24
Alternative Development Scenarios 5-24
5.6 Impact Assessment 5-25
5.6.1 No Project Alternative 5-25
5.6.2 Code Compliant Alternative 5-30
5.6.3 Reduced Scale Alternative 5-51
5.6.4 Reduced Office/Increased Housing Alternative 5-71
5.6.5 Construction Sequence Alternatives 5-92
5.7 Comparison of Impacts 5-100
5.8 Environmentally Superior Alternative 5-100
Chapter 6 **Report Preparers 6-1**
6.1 Lead Agency 6-1
City of Santa Clara 6-1
6.2 Consultants 6-1
ICF 6-1
Hexagon 6-2
BASELINE 6-2
Keyser Marston Associates, Inc. 6-2
Bay Area Economics 6-2
Ramboll US Consulting, Inc. 6-2

Appendices

Appendix 1	Notice of Preparation and Comment Summary
Appendix 3.2	Transportation Data
Appendix 3.3-1	Air Quality and Greenhouse Gas Data
Appendix 3.3-2	Photochemical Modeling Data
Appendix 3.4	Climate Action Plan Checklist
Appendix 3.6	Noise Data
Appendix 3.8	Arborist Reports
Appendix 3.14	Native American Consultation
Appendix 3.15	Water Supply Assessment
Appendix 4	Urban Decay Analysis
Appendix 5	Construction Sequences Technical Memorandum

Tables

ES-1	Summary of Impacts and Mitigation Measures	8
2-1	Existing Project Site Components	2-3
2-2	Proposed Development at the Project Site	2-6
2-3	Proposed Development by Development Area Program	2-9
2-4	Proposed Parking Spaces	2-15
2-5	Potential Bicycle Parking	2-16
2-6	Proposed Onsite Residents and Employees	2-24
2-7	Estimated Construction Schedule	2-35
3-1	Cumulative Projects	3-8
3-2	Total Cumulative Development	3-12
3.1-1	Comparison of Number of Jobs to Housing in the City	3.1-6
3.1-2	Comparison of Number of Jobs to Housing in the City (Plan Bay Area)	3.1-8
3.1-3	Comparison of the Project to General Plan Goals and Policies	3.1-22
3.2-1	Existing Transit Services	3.2-16
3.2-2	Project Compliance with City of Santa Clara 2010–2035 General Plan	3.2-20
3.2-3	Parking Ratio by Use	3.2-39
3.3-1	Federal and State Ambient Air Quality Standards	3.3-3
3.3-2	Sources and Health Effects of Air Pollutants	3.3-10
3.3-3	Ambient Air Quality Data for the Project Area (2019–2021)	3.3-14
3.3-4	Federal and State Attainment Status for Santa Clara County Portion of the SFBAAB	3.3-16
3.3-5	BAAQMD Project-Level Regional Criteria Pollutant Emissions Thresholds	3.3-18
3.3-6	Construction Source Parameters	3.3-26
3.3-7	Operational HRA Source Parameters	3.3-27
3.3-8	Estimated Maximum Daily Construction Emissions of Criteria Air Pollutants and Precursors	3.3-34
3.3-9	Estimated Maximum Daily Operational Emissions (Existing Conditions, Project Uses, and Net Emissions)	3.3-37
3.3-10	Estimated Net Mitigated Maximum Daily Operational Emissions (2034)	3.3-39
3.3-11	Estimated Unmitigated Maximum Daily Construction plus Operational Emissions of Criteria Air Pollutants and Precursors	3.3-40
3.3-12	Estimated Mitigated Maximum Daily Construction plus Operational Emissions of Criteria Air Pollutants and Precursors	3.3-41

3.3-13 CO Concentrations at Worst-Case Intersection that Conflicts with the Congestion Management Program (parts per million) 3.3-43
3.3-14 Estimated Mitigated Project-Level Health Risk Results from Modeled Scenarios 3.3-46
3.3-15 Maximum Cumulative Health Risks – Residential Receptors 3.3-51
3.3-16 Maximum Cumulative Health Risks – Worker Receptors 3.3-53
3.3-17 Maximum Cumulative Health Risks – Recreational Receptors 3.3-55
3.3-18 Maximum Cumulative Health Risks – School Receptors 3.3-57
3.4-1 City of Santa Clara Community Greenhouse Gas Emissions Inventory ($MTCO_2e$) 3.4-7
3.4-2 City of Santa Clara 2022 CAP Consistency with CEQA Guidelines Section 15183.5 Criteria 3.4-7
3.4-3 Lifetimes and Global Warming Potentials of Key Greenhouse Gases 3.4-12
3.4-4 Global, National, State, and Local GHG Emissions Inventories 3.4-13
3.4-5 BAAQMD GHG Thresholds for Land Use Projects 3.4-16
3.4-6 Greenhouse Emissions by Construction Year ($MTCO_2e$ per year) 3.4-19
3.4-7 Operational Greenhouse Emissions by Sector for 2034 (MT CO_2e) 3.4-22
3.4-8 Project Consistency with the CARB 2022 Scoping Plan Key Project Attributes 3.4-27
3.5-1 SVP and the State of California Power Mix in 2021 ..... 3.5-9
3.5-2 Energy Consumption in the SVP Service Area in 2021 ..... 3.5-10
3.5-3 Existing Energy Consumption at the Project Site (Per Year) 3.5-10
3.5-4 Estimated Demolition and Construction Energy Consumption from the Project (Total) 3.5-13
3.5-5 Estimated Operational Energy Consumption of the Project (Per Year) 3.5-14
3.6-1 Typical A-weighted Sound Levels 3.6-2
3.6-2 Caltrans Vibration Guidelines for Potential Damage to Structures 3.6-5
3.6-3 Caltrans Guidelines for Vibration Annoyance Potential 3.6-5
3.6-4 Santa Clara City Code Schedule A Exterior Sound or Noise Limits 3.6-7
3.6-5 CLUP Land Use Compatibility Standards 3.6-9
3.6-6 Long-Term Noise Level Measurements in and around the Project site, October 5 and 6, 2022 ..... 3.6-15
3.6-7 Short-Term Noise Level Measurements in and around the Project site, October 5 and 6, 2022 ..... 3.6-15
3.6-8 Construction Noise Equipment Data for Each Construction Phase 3.6-17
3.6-9 Construction Noise Levels by Construction Activity (L_{eq}) 3.6-23
3.6-10 Baseline and Baseline plus Project Haul Truck Noise Levels 3.6-30
3.6-11 Existing Roadways – Traffic Noise Impacts (Project Opening Year) 3.6-31
3.6-12 Vibration Source Levels for Daytime Construction Equipment 3.6-38
3.6-13 Vibration Source Levels for Nighttime Construction Equipment 3.6-38

3.6-14 Existing Roadways – Traffic Noise Impacts (Future) 3.6-43
3.7-1 Cultural Resources Studies Overlapping the Project Site 3.7-11
3.8-1 Special-Status Plant Species Considered 3.8-21
3.8-2 Special-Status Wildlife Species Considered 3.8-24
3.9-1 Regional Faults and Seismicity 3.9-5
3.9-2 Likelihood of Future Earthquake on Regional Faults 3.9-6
3.9-3 Modified Mercalli Intensity (MMI) Scale 3.9-7
3.9-4 Geologic Units in the Paleontological Study Area and Paleontological Sensitivity 3.9-14
3.12-1 Regional Housing Need Allocation for 2023–2031 (Units) 3.12-3
3.12-2 Population Trends in the City, County, and Bay Area, 2025–2040 (Total Number of Persons) 3.12-4
3.12-3 Household Trends in the City, County, and the Bay Area, 2015–2040 (Total Number of Households) 3.12-5
3.12-4 Employment Trends in the City, County, and the Bay Area, 2025–2040 (Total Number of Jobs) 3.12-6
3.12-5 Comparison of Number of Jobs to Employed Residents in the City 3.12-7
3.12-6 Proposed Onsite Residents and Employees 3.12-10
3.13-1 Calls and Texts to SCPD Communications Center by Year 3.13-8
3.13-2 Enrollment and Capacity for School Service Project Site 3.13-9
3.13-3 Calculated Acreage of New Park Land Required to City Code and MFA 3.13-17
3.15-1 Past and Projected PoWater Demands in the City of Santa Clara by Land Use Type, 2020–2045 (acre-feet per year) 3.15-13
3.15-2 Projected Changes in Water Demands (acre-feet) 3.15-14
3.15-3 Existing Water Conveyance Systems Serving the Project Area 3.15-15
3.15-4 Existing Water Conveyance Systems Serving the Project Area 3.15-15
3.15-5 Solid Waste Facilities Serving the City of Santa Clara and Other Municipalities 3.15-16
3.15-6 Existing and Projected Water Demand per Land Use per Year 3.15-24
3.15-7 Estimated Solid Waste Generation Rate by Land Use 3.15-28
4-1 Summary Description of Project 4-6
4-2 Resident Spending 4-6
4-3 Retail Sales in Santa Clara County 4-7
4-4 Household Income Comparison, City and County of Santa Clara 4-8
4-5 Office Worker Spending 4-8
4-6 Office Worker Expenditures 4-9
4-7 Total Spending and Sales per Square Foot 4-10
5-1 Comparative Description of the Project Alternatives 5-5
5-2 Code Compliant Alternative 5-11

5-3 Reduced Scale Alternative 5-12
5-4 Reduced Office/Increased Housing Alternative 5-13
5-5 Simultaneous Project Construction Schedule 5-14
5-6 No Overlapping Project Construction Schedule 5-15
5-7 Residential Uses First Project Construction schedule 5-15
5-8 Residential Uses Constructed Last Project Schedule 5-16
5-9 Alternatives – Attainment of Project Objectives 5-17
5-10 Comparison of Air Quality Impacts among Construction Sequence Alternatives 5-94
5-11 Comparison of Impacts among Project Alternatives 5-103

Figures

2-1 Project Location 2-2
2-2 Existing Land Uses 2-5
2-3 Conceptual Site Plan 2-7
2-4 Conceptual Ground-Floor Plan 2-10
2-5 Conceptual Public Access and Circulation Plan 2-12
2-6 Conceptual Bicycle and Pedestrian Circulation Plan 2-14
2-7 Conceptual Open Space Plan 2-17
2-8 Conceptual Visualization – The Gateway Area 2-20
2-9 Conceptual Visualization – The Central Green Area 2-21
2-10 Conceptual Visualization – The Office Campus Area 2-22
2-11 Conceptual Visualization – The Residential Block Area 2-23
2-12 Existing Utilities In Proximity to the Project Site 2-26
2-13 Conceptual Project Water Facilities Plan 2-27
2-14 Conceptual Project Sewer Facilities Plan - Option 2A 2-29
2-15 Conceptual Project Sewer Facilities Plan - Option 3A 2-30
3-1 Cumulative Projects 3-13
3.1-1 General Plan Land Use Diagram: Phase II (2015–2023) 3.1-3
3.1-2 General Plan Land Use Diagram: Phase III (2023–2035) 3.1-4
3.1-3 Airport Influence Area 3.1-16
3.1-4 2022 Aircraft Noise Contours 3.1-17
3.1-5 FAR Part 77 Surfaces 3.1-18
3.2-1 Existing Transportation Network 3.2-11
3.6-1 2035 Ground Transportation Noise Contours 3.6-11
3.6-2 Existing Noise-Sensitive Land Uses and Noise Measurement Locations 3.6-14
3.13-1 Public Services Serving the Project Site 3.13-5
5-1 Conceptual Site Plan – Code Compliant Alternative 5-7
5-2 Conceptual Site Plan – Reduced Scale Alternative 5-8
5-3 Conceptual Site Plan – Reduced Office/Increased Housing Alternative 5-9

Acronyms and Abbreviations

AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACDP	auger cast displacement piles
ACE	Altamonte Corridor Express
ACM	asbestos-containing materials
ADA	Americans with Disabilities Act
ADT	average daily traffic
af	acre-feet
afy	af per year
AIA	Airport Influence Area
ALUC	Airport Land Use Commission
APA	American Planning Association
ATCM	airborne toxic control measure
BAAQMD	Bay Area Air Quality Management District
BASMAA	Bay Area Stormwater Management Agencies Association
Bay-Delta	San Francisco Bay-Delta
BMP	best management practices
BTU	British thermal units
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CalEPA	California Environmental Protection Agency
CalRecycle	California Department of Resources Recycling and Recovery
CAP	Climate Action Plan
CARB	California Air Resources Board
CASQA	California Stormwater Quality Association
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH_4	methane
CHP	California Highway Patrol
City	City of Santa Clara

CLUP	Comprehensive Land Use Plan
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPPA	California Native Plant Protection Act
CNPS	California Native Plant Society
CO_2	carbon dioxide
COPC	constituents of potential concern
County	County of Santa Clara
CPSM	Center for Public Safety Management
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Ranks
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DEH	Department of Environmental Health
DOF	Department of Finance
DOT	U.S. Department of Transportation
DPM	diesel particulate matter
DSOD	Division of Safety of Dams
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EIR	environmental impact report
EISA	Energy Independence and Security Act of 2007
EO	executive order
EOP	Emergency Operations Plan
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
ESA	Environmental Site Assessment
ESL	environmental screening levels
EV	electric vehicle
EVA	Emergency Vehicle Access
EVSE	electric-vehicle supply equipment
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
FAR	floor area ratio
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone

FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMU	future mitigation unit
FTA	Federal Transit Administration
General Plan	City of Santa Clara 2010–2035 General Plan
GHG	greenhouse gas
GIS	gas-insulated switchgear
GIS	geographic information system
GMP	Groundwater Management Plan
gpd	gallons per day
GSA	groundwater sustainability agencies
GVWR	gross vehicle weight rating
GWP	global warming potential
HBMP	Hazardous Materials Business Plan
HCD	Housing and Community Development
HCP	Habitat Conservation Plan
HFC	hydrofluorocarbon
HMCD	Hazardous Materials Compliance Division
HMP	Hydromodification Management Plan
HMTA	Hazardous Materials Transportation Act
HMTUSA	Hazardous Materials Transportation Uniform Safety Act
HOV	high-occupancy vehicle
HRA	health risk assessment
HVAC	heating, ventilation, air-conditioning
ICSC	International Council of Shopping Centers
IFC	International Fire Code
IPaC	Information for Planning and Consultation
IPCC	Intergovernmental Panel on Climate Change
IRP	Integrated Resource Plan
KNUQ	Moffett Field monitoring station
KSJC	San José International Airport monitoring station
L_{dn}	day-night level
LEED	Leadership in Energy and Environmental Design
L_{eq}	Equivalent Sound Level
LID	low-impact development
LiDAR	light detection and ranging
L_{max}	maximum sound level
L_{min}	minimum sound level
LOS	level of service
LTS	less than significant

LTS/M	less than significant with mitigation
MBPA	Migratory Bird Protection Act
MBTA	Migratory Bird Treaty Act
MFA	Mitigation Fee Act
mg	million gallons
mgd	million gallons per day
ML	Light Industrial
MLD	most likely descendant
MMI	Modified Mercalli Intensity
MMRP	Mitigation Monitoring and Reporting Program
MRP	Municipal Regional Permit
MRZ	Mineral Resource Zones
MSL	mean sea level
MTC	Metropolitan Transportation Commission
MW	megawatts
MWENDO	Model Water Efficiency New Development Ordinance
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
ND	Neighborhood Development
NEHRP	National Earthquake Hazards Reduction Program
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NFIP	National Flood Insurance Program
NFPA	National Fire Protection Association
NHTSA	National Highway Traffic Safety Administration
NI	no impact
NMFS	National Marine Fisheries Service
NOP	Notice of Preparation
NO_X	nitrous oxide
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
OCP	organochlorine pesticides
OEHHA	Office of Environmental Health Hazard Assessment
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyls
PCE	tetrachloroethylene
PD	Planned Development
PDA	Priority Development Areas

PG&E	Pacific Gas & Electric
PM	particulate matter
PPV	peak particle velocity
PRC	Public Resources Code
Project	Mission Point Project
PUMS	Public Use Microdata Sample
R&D	research and development
RCRA	Resource Conservation and Recovery Act of 1976
RHNA	Regional Housing Needs Allocation
ROG	reactive organic gas
ROW	right-of-way
RPS	Renewables Portfolio Standard
RTP	regional transportation plan
RWF	regional wastewater facility
RWQCB	Regional Water Quality Control Board
RWS	Regional Water System
SAFE	Safer Affordable Fuel Efficient
SB	Senate Bill
SBWR	South Bay Water Recycling
SBWRP	South Bay Water Recycling Program
SCAQMD	South Coast Air Quality Management District
SCCL	Santa Clara City Library
SCFD	Santa Clara Fire Department
SCPD	Santa Clara Police Department
SCS	Sustainable Communities Strategy
SCUSD	Santa Clara Unified School District
SCVURPPP	Santa Clara Valley Urban Runoff Pollution Prevention Program
SCVWD	Santa Clara Valley Water District
SEL	sound equivalent level
Sewer Study	Project's Sanitary Sewer Capacity Evaluation
SF Bay MS4 Permit	San Francisco Bay Municipal Separate Storm Sewer Systems Permit
SFBAAB	San Francisco Bay Area Air Basin
SFPUC	San Francisco Public Utilities Commission
SFRWQCB	San Francisco Bay Regional Water Quality Control Board
SGMP	Soil and Groundwater Management Plan
SIP	State Implementation Plan
SJC	San José International Airport
SLCP	short-lived climate pollutant
SLR	sea-level rise
SMP	Site Management Plan

soot	anthropogenic black carbon
SPCC	Spill Prevention, Control, and Countermeasure
State	State of California
SU	significant unavoidable
SU/M	significant unavoidable with mitigation
SVCW	Silicon Valley Clean Water
SVP	Silicon Valley Power
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants
TDM	Transportation Demand Management
TIA	transportation impact analysis
TK	transitional kindergarten
TMDL	total maximum daily load
TMOP	Transportation Management and Operations Plan
TNM	Traffic Noise Model
TPA	Transit Priority Area
TPH	total petroleum hydrocarbons
TSCA	Toxic Substances Control Act
UPRR	Union Pacific Railroad
Urban Runoff Program	Santa Clara Valley Urban Runoff Pollution Prevention Program
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
UST	underground storage tanks
UWMP	City 2020 Urban Water Management Plan
Valley Water	Santa Clara Valley Water District
VdB	vibration decibel level
VMT	vehicle miles traveled
VOC	volatile organic compounds
VTA	Valley Transportation Authority
WBSD	West Bay Sanitary District
WDR	waste discharge requirement
WSA	Water Supply Assessment
WWTP	Wastewater Treatment Plant
ZEV	zero-emission vehicle

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Introduction

This Draft Environmental Impact Report (EIR) has been prepared by the City of Santa Clara (City) to assess potential environmental impacts that could result from implementation of the Mission Point Project (Project) in Santa Clara, California. The City is the lead agency for the Project, pursuant to the California Environmental Quality Act (CEQA). State CEQA Guidelines Section 15123 identifies the required contents for a Draft EIR executive summary, which include a brief summary of the proposed actions and its consequences, each significant effect, proposed mitigation measures, alternatives that would reduce or avoid significant effects, and known areas of controversy. This information is provided below.

Project Overview

Kylli, Inc. (Project Sponsor), the U.S. real estate subsidiary of Genzon Investment Group, proposes a mixed-use development on a 48.61-acre site (Project site) in Santa Clara, California. If approved by the City Council and applicable regulatory agencies, the Project would demolish existing office buildings and establish a new mixed-use neighborhood. The existing City of Santa Clara 2010–2035 General Plan (General Plan) designation of High-Intensity Office/Research and Development (R&D) would be changed to Urban Center Mixed Use, and existing zoning would be changed from Light Industrial (ML) to Planned Development (PD), providing a transit-oriented "live, work, socialize, and recreate" environment.

The Project site is located on nine parcels (assessor's parcel numbers [APNs] 104-04-150, 104-04-142, 104-04-143, 104-04-151, 104-04-112, 104-04-113, 104-04-065, 104-04-111, 104-04-064), totaling approximately 46 acres, as well as Democracy Way, a privately owned street that is subject to an existing public right-of-way (ROW) easement that covers approximately 2.6 acres, for a combined total Project area of 48.6 acres. The Project site is generally located along the Great America Parkway corridor in Santa Clara. It is bounded by Tasman Drive to the north, Old Ironsides Drive to the east, the ROW associated with the Hetch Hetchy aqueduct to the south, and Patrick Henry Drive to the west (see Figure 2-1 in Chapter 2, *Project Description*). The Project site is in an ML zoning district.

The Project would include up to 4,913,000 gross square feet (gsf) of new development, including approximately 1.8 million gsf of residential uses (up to 1,800 units), approximately 3 million gsf of office/research-and-development (R&D)[1] space, approximately 100,000 gsf of neighborhood retail uses, and approximately 10,000 gsf of childcare facilities, along with 3,000 gsf of community space. An approximately 18,000-square-foot electrical substation would also be constructed to support the Project.[2] Parking would be provided in a mix of subsurface and aboveground parking facilities. In addition, the Project would include up to approximately 16 acres of publicly accessible open space at grade level as well as approximately 10 acres of private open space for residential and office uses;[3] new bicycle, pedestrian, and vehicular circulation routes; and upgraded and expanded infrastructure.

[1] Although the end uses are not yet determined, the Project may include lab/R&D uses. For CEQA purposes, up to 30 percent laboratory use has been assumed. All future references to "office" include permitted lab/R&D uses.

[2] The size, design, and location of the substation are subject to final discussions with Silicon Valley Power.

[3] Additional private open space will be provided on terraces, balconies, and rooftops. These spaces are not included as part of the calculations.

The Project site is currently developed with four light industrial buildings, totaling approximately 142,050 gsf, on the northern portion of the site. The buildings were constructed in the late 1970s. A paved surface parking lot south of Democracy Way, also on the Project site, has approximately 5,081 parking spaces. The Project Sponsor currently occupies one of the buildings on the Project site for office space; the other buildings are vacant. Currently, the Project site is used primarily for temporary event parking associated with Levi's Stadium, which uses 3,300 parking spaces.[4] The rest of the parking spaces are used by Amazon as drivers' training grounds. The Project site is designated in the General Plan as High-Intensity Office/R&D.[5] The City's zoning code currently designates the Project site as ML.

Impacts and Mitigation Measures

Table ES-1, beginning on page ES-8, presents a summary of the impacts of the Project, proposed mitigation measures, and each impact's level of significance after mitigation. The environmental impacts are identified and classified as "Significant," "Less than Significant," or "No Impact." According to State CEQA Guidelines Section 15382, a significant impact is "… a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project…" State CEQA Guidelines Section 15126.4(a)(1) also states that an EIR "… shall describe feasible mitigation measures that could minimize significant adverse impacts…" In this Draft EIR, feasible mitigation measures are identified for impacts that have been labeled as "Significant" (S), as applicable. If the mitigation measure would successfully reduce the impact to a less-than-significant level, then the impact is identified as "Less than Significant" (LTS) in Table ES-1. However, if the mitigation measure would not reduce the impact to a less-than-significant level, or if there is no feasible mitigation measure, then Table ES-1 classifies the impact as "Significant and Unavoidable with Mitigation" (SU/M) or "Significant and Unavoidable with No Feasible Mitigation (SU), respectively.

Project Alternatives

Chapter 5, *Alternatives*, of this Draft EIR analyzes the following reasonable alternatives to the Project:

- **No Project Alternative:** The No Project Alternative is provided in this Draft EIR to compare the impacts of the Project with what would be reasonably expected to occur in the foreseeable future if the Project were not approved (State CEQA Guidelines Section 15126.6[e][1]). Under the No Project Alternative, no additional construction would occur at the Project site. The existing 142,050 gsf of light industrial buildings would be occupied with tenants permitted under the existing zoning. The onsite features associated with the buildings would also remain. The existing paved surface parking lot south of Democracy Way, with approximately 5,081 parking spaces, would continue to operate as it does currently (i.e., primarily temporary parking for events at Levi's Stadium, which uses 3,300 parking spaces; the rest of the parking spaces would continue to be used by Amazon as drivers' training grounds).

[4] In 2011, to prepare the site for parking use, the previous owner demolished six single-story office/industrial buildings that were located on the Project site.

[5] City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan.* Figure 5.2-1, page 93. Available: https://www.santaclaraca.gov/ home/showpublisheddocument/56139/636619791319700000. Accessed: April 18, 2022.

- **Code Compliant Alternative:** The Code Compliant Alternative is the second No Project Alternative and is based on what would be reasonably expected to occur in the foreseeable future if the Project were not approved and development continued to occur in accordance with the City's General Plan and zoning code consistent with available infrastructure and community services. Under the Code Complaint Alternative, the Project would be implemented subsequent to the City's zoning code update and would not include housing. After the City's zoning code update, the Project site would be designated as High-Intensity Office/R&D in the City's General Plan. This designation allows for "high-rise or campus-like developments for corporate headquarters, R&D, and supporting uses, with landscaped areas for employee activities." Permitted uses include offices and prototype R&D uses with a maximum floor area ratio (FAR) of 2.00. Therefore, the Project site could be developed with up to approximately 4.2 million gsf of office/R&D space. The City's zoning code currently designates the Project site as ML. However, with incorporation of the City's zoning code update, the Project site will be rezoned as High-Intensity Office/R&D (HO-RD).
- **Reduced Scale Alternative:** The Reduced Scale Alternative would reduce development on the Project site by 30 percent proportionately compared to the Project. This alternative would result in up to 3,440,000 gsf of new development, including approximately 1,260,000 gsf of residential uses (up to 1,260 units), approximately 2,180,000 gsf of office/R&D space, neighborhood retail uses, facilities, and community space. In addition, the amount of publicly accessible open space and private open space would also be reduced by 30 percent, resulting in approximately 7 acres of public parkland and 4 acres of publicly accessible open space and 7 acres of other private open space for residential and office uses. Likewise, the number of parking spaces included as part of this alternative would be reduced to 6,300 spaces.
- **Reduced Office/Increased Housing Alternative:** Under the Reduced Office/Increased Housing Alternative, the overall office square footage would be reduced and the overall number of housing units would increase. This would be accomplished by removing all 789,000 gsf of office/R&D space in Area C and replacing it with 800 multi-family housing units. The substation would be relocated to Area B. The retail uses, amenities, open space, and substation in Area C would all remain the same as under the Project. In addition, all other land use and development assumptions for Areas A, B, and D would remain the same as under the Project. Thus, the Reduced Office/Increased Housing Alternative would result in up to 4,913,000 gsf of new development, including up to 2,600 housing units; approximately 2,211,000 gsf of office/R&D space; approximately 100,000 gsf of neighborhood retail uses; and approximately 10,000 gsf of childcare facilities, along with 3,000 gsf of community space.
- **Construction Sequence Alternatives:** The Construction Sequence Alternatives were developed to modify the order in which the four areas of the Project could be constructed. The Construction Sequence Alternatives include:
    - Simultaneous project construction,
    - No overlapping construction,
    - Residential uses constructed first, and
    - Residential uses constructed last.

    All other Project characteristics and assumptions would remain the same under each Construction Sequence Alternative as under the Project, including total development potential, types of land uses, parking, open space, access, and circulation.

Known Areas of Controversy

State CEQA Guidelines Section 15123 specifies that a Draft EIR summary must identify "areas of controversy" that are known to the Lead Agency, including issues that were raised by agencies and the public, as well as issues that are to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects.

The City prepared a Notice of Preparation (NOP) for the Project, included as Appendix A to this Draft EIR. The NOP was released for a 30-day public review period, beginning April 18 and ending May 18, 2022. One virtual public scoping meeting was held on May 4, 2022. The NOP noted that the Project may have significant effects on the environment and that an EIR would be prepared. The NOP was sent to individuals, local interest groups, adjacent property owners, and responsible and trustee State of California (State) and local agencies that have jurisdiction over or an interest in environmental resources and/or conditions in the vicinity of the Project site. The purpose of the NOP was to allow various private and public entities to transmit their concerns and comments on the scope and content of the Draft EIR, focusing on specific information related to each individual's or group's interest or agency's statutory responsibility early in the environmental review process.

In response to the NOP, letters were received from the following agencies:

- Native American Heritage Commission
- City of Sunnyvale
- County of Santa Clara Roads and Airports Department
- Santa Clara Valley Water District
- Santa Clara Valley Transportation Authority (VTA)

In addition, comments were made anonymously by individuals during the virtual public scoping meeting. These comments focused on population/housing, biological resources, transportation, Project design, hazards, public services, utilities, and general issues regarding the schedule, public outreach, parking, and support for the Project. A summary of the NOP comments is included in Appendix 1 of this Draft EIR. The City considered all comments and related information received. The topics that would result in physical impacts under CEQA are addressed in the EIR analysis. Areas of controversy include those listed below.

Aesthetics

- Impacts from taller buildings on nearby residential areas

Biological Resources

- Impacts on Calabazas Creek

Cultural Resources

- Senate Bill (SB) 52 and SB 18 consultation

Hydrology/Flood Hazards

- Implementation of measure from the Model Water Efficiency New Development Ordinance

- Dewatering and impacts on groundwater
- Active wells on the Project site
- Federal Emergency Management Agency (FEMA) flood zones and impervious surface area and runoff

Hazardous Materials

- Federal Aviation Administration (FAA) building height requirements

Land Use

- Compatibility of stadium use with residential uses, especially from a transportation circulation perspective.

Transportation

- Components to be included in the transportation impact analysis (TIA)
- Traffic impacts on the Tasman corridor and game-day traffic impacts
- Inclusion of a local transportation analysis (LTA)
- Inclusion of queuing analysis at county intersections for left-/right-turn lanes where Project trips are added, in addition to US 101 northbound/southbound on- and off-ramps.
- Transportation Demand Management (TDM) plans and measures
- Allowance for the County of Santa Clara to review the TDM plan scope of work
- Alternative modes of transportation
- Individual and cumulative Project operational impacts on City of Sunnyvale facilities
- Construction schedule of regional transportation improvements relative to the Project
- Allowance for the City of Sunnyvale to review draft TIA
- Extension of the new multi-use trail south of the Project site to connect to Calabazas Creek Trail.
- Implementation of improvements described in the Tasman corridor streets study prepared by VTA and the Cities of Sunnyvale, Santa Clara, San José, and Milpitas as part of the Project
- Improvement of impacts on County of Santa Clara facilities based on projects listed in the County expressway planning study.
- Improvements based on the Tasman complete streets study
- Congestion impacts on transit travel times
- Pedestrian and bicycle accommodations
- Analysis of all freeway segments affected
- Temporary road closures and detours during construction
- California Public Utilities Commission (CPUC) permits

Population and Housing

- Affordable housing
- Building height of structures adjacent to Adobe Wells Mobile Home Park

Public Services

- Firefighting capabilities, according to building height

Utilities

- Existing water and sewer systems and the increase demand generated by the Project
- Water Supply Assessment (WSA)

Draft EIR Conclusions, including Issues to Be Resolved

In accordance with State CEQA Guidelines Section 15123(b)(3), this summary must identify issues that are to be resolved, including whether or how to mitigate the significant effects and the choice among alternatives. Chapter 3, *Environmental Impact Analysis*, of the Draft EIR presents mitigation measures to reduce or avoid the significant impacts that have been identified for the Project. In some instances, the Draft EIR identifies mitigation options to address specific impacts. During the CEQA environmental review process and Project consideration, the City will need to resolve which mitigation measures are suitable and whether they can effectively reduce impacts to a less-than-significant level. A Mitigation Monitoring and Reporting Program (MMRP) will be prepared to define the timing for implementation of the measures, the parties that will be responsible for implementation, and the parties that will be responsible for reporting and verifying implementation.

The Draft EIR identifies impacts that would remain significant and unavoidable, even after implementation of the proposed mitigation measures. Consequently, the City will need to determine whether to approve the Project as proposed and, if so, provide its rationale in a Statement of Overriding Considerations.

As noted above, Chapter 5, *Alternatives*, presents alternatives to the Project. Although the Reduced Scale Alternative would be the environmentally superior alternative and would meet some Project objectives, none of the alternatives would avoid all of the significant and unavoidable impacts of the Project. The City will need to resolve whether these options, or others that have been considered, are preferable from an environmental and community perspective compared with the Project.

How to Comment on This Draft EIR

This Draft EIR is considered a draft under CEQA because it must be reviewed and commented upon by public agencies, organizations, and individuals before being finalized. This document is being distributed for a public review and comment period of 45 days. Readers are invited to submit written comments on the document. Comments are most helpful when they suggest specific additional alternatives or measures that could reduce the Project's significant environmental effects. Written comments should be submitted to:

Rebecca Bustos, Principal Planner
City of Santa Clara
Community Development Department, Planning Division
1500 Warburton Avenue
Santa Clara, CA 95050
rbustos@santaclaraca.gov
Direct: 408.615.2464

Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
3.1 Land Use and Planning			
Impact LU-1: Physical Division of an Established Community. The Project would not physically divide or disrupt an established community.	NI	None Required	N/A
Impact LU-2: Conflicts with Adopted City Land Use Plans and Policies Regarding the Jobs/Housing Balance. The Project would not result in a significant environmental impact due to a conflict with City General Plan policies aimed at improving the City's jobs/housing balance.	NI	None Required	N/A
Impact LU-3: Conflicts with Airport Land Use Plan. The Project would not result in a significant environmental impact due to a conflict with the Comprehensive Land Use Plan for San José International Airport.	LTS	None Required	N/A
Impact LU-4: Conflicts with Other Adopted City Land Use Plans and Policies. The Project would not result in a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	LTS	None Required	N/A
Impact C-LU-1: Cumulative Land Use Impacts. The Project, in combination with other foreseeable development in the nine-county ABAG region, would not result in a significant environmental impact due to a conflict with some applicable land use plans, policies, and regulations	LTS	None Required	N/A

NI = No impact • **LTS** = Less than significant • **S** = Significant • **SU** = Significant and unavoidable
SU/M = Significant and unavoidable with mitigation • **N/A** = not applicable

Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
3.2 Transportation			
Impact TRA-1: Consistency with Adopted Plans, Ordinances, and Policies Regarding Roadways. With implementation of mitigation, the Project would not conflict with an applicable plan, ordinance, or policy addressing the roadway network.	S	*TRA-1.1: Construction Management Plan.* Prior to the issuance of each building permit, the Project Sponsor shall prepare a construction management plan for review and approval by the Public Works Department. The plan, which shall be implemented during construction, shall include at least the following items and requirements: • A comprehensive set of traffic control measures, including measures regarding detour signs, if required; lane closure procedures; sidewalk closure procedures; signs; cones for drivers; and designated construction access routes. • Notification procedures for adjacent property owners, the public, transit operators, and public safety personnel regarding when detours and lane closures will occur. • The location of construction staging areas for materials, equipment, and vehicles (must be located on the Project site). • Identification of haul routes for the movement of construction vehicles to minimize impacts on vehicular, pedestrian, and transit vehicle traffic, circulation, and safety and provisions for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul trucks can be identified and corrected. Construction vehicles shall be required to use designated truck/haul routes. • Provisions for the removal of trash generated by Project construction activity. • A process for responding to and tracking complaints pertaining to construction activity.	LTS

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SU/M = Significant and unavoidable with mitigation • **N/A** = not applicable

Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		• Parking restrictions—specifically, construction vehicles and construction workers shall not be allowed to park in adjacent residential neighborhoods, and construction vehicles shall be required to park in the construction zone or in temporary parking lots onsite. • Provisions that address the construction schedule, street closures and/or detours, construction staging areas and parking, and the planned truck routes.	
Impact TRA-2: Consistency with Adopted Plans, Ordinances, and Policies Regarding Transit. With implementation of mitigation, the Project would not conflict with an applicable plan, ordinance, or policy addressing public transit.	S	Implement Mitigation Measure TRA-1.1.	LTS
Impact TRA-3: Consistency with Adopted Plans, Ordinances and Policies Regarding Bicycle Facilities. With implementation of mitigation, the Project would not conflict with an applicable plan, ordinance, or policy addressing bicycle facilities.	S	Implement Mitigation Measure TRA-1.1.	LTS
Impact TRA-4: Consistency with Adopted Plans, Ordinances and Policies Regarding Pedestrian Facilities. With implementation of mitigation, the Project would not conflict with an applicable plan, ordinance, or policy addressing pedestrian facilities.	S	Implement Mitigation Measure TRA-1.1.	LTS

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SU/M = Significant and unavoidable with mitigation • **N/A** = not applicable

Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
Impact TRA-5: Vehicle Miles Traveled. Consistent with State CEQA Guidelines Section 15064.3(b), the Project would qualify as transit supportive and therefore be below the applicable threshold of significance for vehicles miles traveled**.**	LTS	None Required	N/A
Impact TRA-6: Hazards Due to Design Features or Incompatible Uses. With implementation of mitigation, the Project would not substantially increase hazards due to a geometric design feature or incompatible uses**.**	S	Implement Mitigation Measure TRA-1.1.	LTS
Impact TRA-7: Emergency Access. With implementation of mitigation, the Project would not result in inadequate emergency access.	S	Implement Mitigation Measure TRA-1.1.	LTS
Impact C-TRA-1: Cumulative Adopted Plans, Ordinances, and Policies Addressing the Circulation System. With implementation of mitigation, the Project, in combination with other foreseeable development in the vicinity, would not conflict with an applicable plan, ordinance, or policy addressing the circulation system, including roadway, transit, bicycle, and pedestrian facilities.	S	Implement Mitigation Measure TRA-1.1.	LTS
Impact C-TRA-2: Cumulative Vehicle Miles Traveled. Consistent with State CEQA Guidelines Section 15064.3(b), the Project, in combination with other foreseeable development in the vicinity, would not exceed an applicable VMT threshold of significance.	LTS	None Required	N/A

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SU/M = Significant and unavoidable with mitigation • **N/A** = not applicable

Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
Impact C-TRA-3: Cumulative Hazards Due to Design Features or Incompatible Uses. With implementation of mitigation, the Project, in combination with other foreseeable development in the vicinity, would not substantially increase hazards due to a geometric design feature or incompatible uses.	S	Implement Mitigation Measure TRA-1.1.	LTS
Impact C-TRA-4: Cumulative Emergency Access. With implementation of mitigation, the Project, in combination with other foreseeable development in the vicinity, would not result in inadequate emergency access.	S	Implement Mitigation Measure TRA-1.1.	LTS
3.3 Air Quality			
Impact AQ-1: Consistency with the Applicable Air Quality Plan. The Project would not conflict with or obstruct implementation of the applicable air quality plan.	LTS	None Required	N/A
Impact AQ-2: Cumulatively Considerable Net Increase in Criteria Pollutants. The Project would result in a cumulatively considerable net increase in a criteria pollutant for which the Project region is classified as a nonattainment area under an applicable federal or State ambient air quality standard.	S	*AQ-2.1: Use Clean Diesel-Powered or Electric Equipment during Construction to Control Construction-Related Emissions.* The Project Sponsor shall ensure that all off-road diesel-powered equipment greater than 50 horsepower used during construction shall be equipped with EPA-approved Tier 4 Final engines or cleaner[6] to reduce exhaust $PM_{2.5}$ emissions. The construction contractor shall submit evidence of the use of EPA-approved Tier 4 Final engines or cleaner to the City of Santa Clara prior to the commencement of Project construction activities. *AQ-2.2: Implement BAAQMD Basic Construction Mitigation Measures to Reduce Dust Emissions.* The Project Sponsor shall	SU/M

[6] Cleaner engine technology includes electric equipment and CARB Tier 5 engine standards, which are expected to begin in 2028 (CARB n.d.).

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SU/M = Significant and unavoidable with mitigation • **N/A** = not applicable

Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		require all construction contractors to implement the BAAQMD Basic Construction Mitigation Measures as well as additional construction-related mitigation measures recommended by BAAQMD.[7] The emissions reduction measures shall include, at a minimum, all of the items listed below. The Project Sponsor shall provide documentation to the City of Santa Clara that the Basic Construction Mitigation Measures as well as any additional measures recommended by BAAQMD, have been reflected in all construction contracts prior to the commencement of Project construction activities. • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, unpaved access roads) shall be watered at least three times per day to maintain a minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or a moisture probe. • All haul trucks transporting soil, sand, or other loose material offsite shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 miles per hour. • Paving of all roadways, driveways, and sidewalks shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading, unless seeding or soil binders are used.	

[7] Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act, Air Quality Guidelines*. May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: February 2, 2023.

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SU/M = Significant and unavoidable with mitigation • **N/A** = not applicable

Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		• Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure, Title 13, Section 2485, of the California Code of Regulations). Clear signage shall be provided for construction workers at all access points. • All construction equipment shall be maintained and properly tuned in accordance with manufacturers' specifications. All equipment shall be checked by a certified mechanic and determined to be in proper running condition prior to operation. • A publicly visible sign shall be posted with the name and telephone number of the person to contact at the Lead Agency regarding dust complaints. That person shall respond and take corrective action within 48 hours. The air district's phone number shall also be visible to ensure compliance with applicable regulations. *AQ-2.3: Require Low-VOC Coatings during Project Construction and Operation.* The Project Sponsor shall require contractors, as a condition of contract, to reduce construction-related fugitive ROG emissions by ensuring that low-VOC coatings with a VOC content of 50 grams per liter or less are used during construction and operation. For construction coatings, prior to permit issuance, the Project Sponsor shall submit evidence to the City of Santa Clara regarding the use of low-VOC coatings. *AQ-2.4: Use Low-VOC Cleaning Supplies.* The Project Sponsor shall provide educational resources for residential and commercial tenants concerning zero- or low-VOC cleaning products. Prior to receipt of any certificate of final occupancy, the Project Sponsor shall work with the City of Santa Clara to develop the electronic correspondence to be	

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SU/M = Significant and unavoidable with mitigation • **N/A** = not applicable

Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		distributed by email to new residential and commercial tenants regarding a requirement to purchase cleaning products that generate less than the typical VOC emissions. *AQ-2.5: Replace Gas-Powered Landscape Equipment with Zero-Emission Landscape Equipment.* The Project Sponsor shall provide educational resources for tenants concerning zero-emission landscape equipment. The Project Sponsor, as a condition of contract, shall require all tenants to use only electric landscaping equipment throughout Project operation to reduce ROG, NO_X, PM_{10}, and $PM_{2.5}$ emissions. By the time the Project is operational, new internal-combustion engine landscaping equipment will not be available for purchase in California; thus, electric landscaping equipment will be the only commercially available landscaping equipment for purchase. *AQ-2.6: EPA Tier 4 Final Stationary Emergency Generators.* The Project Sponsor shall require contractors or lessees, as a condition of contract, to install EPA Tier 4 Final stationary emergency generators, if commercially available at any point before occupancy. If Tier 4 Final emergency generators are not commercially available before occupancy, the Project Sponsor and contractor shall install Tier 3 emergency generators. Prior to occupancy permit issuance, the Project Sponsor shall submit evidence to the City regarding the use of Tier 4 Final emergency generator, if commercially available, or Tier 3 emergency generators.	
Impact AQ-3: Substantial Pollutant Concentrations. The Project would expose sensitive receptors to substantial pollutant concentrations.	S	Implement Mitigation Measures AQ-2.1 through AQ-2.6.	SU/M

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SU/M = Significant and unavoidable with mitigation • **N/A** = not applicable

Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
Impact AQ-4: Odor Impacts. The Project would not result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people.	LTS	None Required	N/A
Impact C-AQ-1: Cumulative Consistency with the Applicable Air Quality Plan. The Project, in combination with other foreseeable development in the vicinity, would not conflict with or obstruct implementation of the applicable air quality plan.	LTS	None Required	N/A
Impact C-AQ-2: Cumulatively Considerable Net Increase in Criteria Pollutants. The Project, in combination with other foreseeable development in the vicinity, would result in a cumulatively considerable net increase in criteria pollutants for which the Project region is classified as a nonattainment area under an applicable federal or State ambient air quality standard.	S	Implement Mitigation Measures AQ-2.1 through AQ-2.6.	SU/M
Impact C-AQ-3: Cumulative Substantial Pollutant Concentrations. The Project, in combination with other foreseeable development in the vicinity, would expose sensitive receptors to substantial pollutant concentrations.	S	Implement Mitigation Measures AQ-2.1, AQ-2.2, and AQ-2.6.	SU/M
Impact C-AQ-4: Cumulative Odors. The Project, in combination with other foreseeable development in the vicinity, would not result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people.	LTS	None Required	N/A

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SU/M = Significant and unavoidable with mitigation • **N/A** = not applicable

Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
3.4 Greenhouse Gas Emissions			
Impact GHG-1: Generate GHG Emissions during Construction and Operation. With implementation of mitigation, the Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.	S	*GHG-1.1 Require Implementation of Scoping Plan and BAAQMD-Recommended Best Management Practices to Reduce Construction GHG Emissions.* The Project Sponsor shall require its contractors, as a condition of contracts (e.g., standard specifications), to reduce construction-related GHG emissions by implementing BAAQMD's recommended BMPs, including, but not limited to, the measures listed below, based on BAAQMD's 2022 CEQA Air Quality Guidelines.[8] The Project Sponsor shall submit evidence of compliance to the City prior to permit issuance. • Use zero-emission and hybrid-powered equipment to the greatest extent possible, particularly if emissions are occurring near sensitive receptors or within a Bay Area Air Quality Management District–designated Community Air Risk Evaluation (CARE) area or Assembly Bill 617 community.[9] • Require all diesel-fueled off-road construction equipment to be equipped with U.S. Environmental Protection Agency Tier 4 Final engines or better. • Require all on-road heavy-duty trucks to be zero emissions or meet the most stringent model-year emissions standard where feasible. • Minimize idling time, either by shutting equipment off when not in use or reducing the time of idling to no more than 2 minutes. Provide clear signage that posts this requirement for workers at the entrances to the site.	LTS

[8] Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act Air Quality Guidelines.* May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_ may2017-pdf.pdf?la=en. Accessed: January 31, 2023.

[9] The Project site is not located within a CARE or AB 617 community.

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SU/M = Significant and unavoidable with mitigation • **N/A** = not applicable

Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		• Use California Air Resources Board–approved renewable diesel fuel in off-road construction equipment and on-road trucks where feasible. • Use U.S. Environmental Protection Agency SmartWay-certified trucks for deliveries and equipment transport where feasible. • Require all construction equipment to be maintained and properly tuned in accordance with the manufacturer's specifications. • Where grid power is available, prohibit portable diesel engines and provide electrical hook-ups for electric tools, such as saws, drills, and compressors; use electric tools whenever feasible. • Where grid power is not available, use alternative fuels, such as propane or solar electrical power, for generators at construction sites whenever feasible. • Encourage and provide carpools, shuttle vans, transit passes, and/or secure bicycle parking to construction workers and offer meal options onsite or shuttles to nearby meal destinations for construction employees. • Reduce electricity use in the construction office by using LED bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones. • Minimize energy used during site preparation by deconstructing existing structures to the greatest extent feasible. • Recycle or salvage nonhazardous construction and demolition debris, with a goal of recycling at least 15 percent more, by weight, than the diversion requirement in Title 24.	

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SU/M = Significant and unavoidable with mitigation • **N/A** = not applicable

Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		• Use locally sourced or recycled materials for construction (goal of at least 20 percent, based on cost of building materials and volume of roadway, parking lot, sidewalk, and curb materials). • Use low-carbon concrete, minimize the amount of concrete used, and produce concrete on-site where feasible if it is more efficient than transporting ready-mix. • Develop a plan to efficiently use water for adequate dust control because substantial amounts of energy can be consumed by pumping water. • Include all requirements in applicable bid documents, purchase orders, and contracts, with successful contractors demonstrating the ability to supply compliant on- or off-road construction equipment prior to any ground-disturbing and construction activities.	
Impact GHG-2: Consistency with Applicable Plans and Policies. The Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs.	LTS	None Required	N/A
3.5 Energy			
Impact EN-1: Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources. With implementation of mitigation, the Project would not result in significant environmental impacts due to the wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation.	S	Implement Mitigation Measure GHG-1.1.	LTS
Impact EN-2: Conflict with Energy Plan. The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	LTS	None Required	N/A

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
Impact C-EN-1: **Cumulative Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources**. The Project, in combination with other past, present and foreseeable development in the vicinity, would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during Project construction and operation.	LTS	None Required	N/A
Impact C-EN-2: Cumulative Conflict with Energy Plan. The Project, in combination with other past, present and foreseeable development in the vicinity, would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency during construction or operation.	LTS	None Required	N/A
3.6 Noise			
Impact NOI-1: Construction Noise. The Project would generate a substantial temporary increase in ambient noise levels in the vicinity of the Project due to construction activities in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies.	S	*NOI-1.1: Construction Noise Reduction Control Plan.* The Project Sponsor and/or contractor(s) shall develop a construction noise control plan to reduce noise levels as much as possible and, to the extent feasible, comply with City Code noise limits, ensuring that a 10 dB increase over the ambient noise level will not occur at offsite and onsite noise-sensitive land uses, as defined by Policy 5.10.6-P6 from the General Plan. For nighttime construction activities, the plan shall demonstrate that noise from construction activities will comply with the applicable City Code noise limits at the nearest offsite and onsite land uses and that a 10 dB increase over ambient noise levels will not occur at offsite or onsite noise-sensitive land uses. For daytime construction activities, which are exempt from the City Code limits, the plan shall demonstrate that a 10 dB increase over ambient noise levels will not occur. If the plan does not demonstrate	SU/M

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		these findings, it shall explain why compliance with such noise limits is not feasible and adopt all feasible measures to reduce noise impacts to the extent possible. The construction noise control plan shall be approved by the City prior to the issuance of building permits for the portion of the Project at issue in the noise control plan to confirm the actual minimization strategies that will be implemented. Project construction shall comply with all identified measures in the noise control plan. In addition, because Project construction would not be limited to the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday or 9:00 a.m. to 6:00 p.m. on Saturdays, excluding holidays, the Project Sponsor shall obtain an exemption permit for all activities occurring outside of the exempt hours, per the City Code. At a minimum, the following measures to reduce noise from construction activity shall be incorporated into the Construction Noise Control Plan: • Use "quiet" models of air compressors and other stationary noise sources where technology exists; • Equip all internal-combustion engines with mufflers that are in good condition and appropriate for the equipment; • Locate all stationary noise-generating equipment, such as air compressors and portable power generators, as far away as possible from adjacent noise-sensitive land uses; • Locate staging areas and construction material areas as far away as possible from adjacent noise-sensitive land uses; • Prohibit all unnecessary idling of internal-combustion engines; • Notify all adjacent land uses of the construction schedule in writing;	

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		• Designate a "disturbance coordinator," a person who will be responsible for responding to local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler) and require reasonable measures to correct the problem to be implemented; • Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule; and • Install noise-reducing soundwalls or fencing with sound blankets around noise-generating equipment, to the extent feasible. During permit approval, the City may impose additional or alternative noise reduction control measures to further reduce noise levels as much as possible and, to the extent feasible, comply with City Code noise limits. Any such additional or alternative noise reduction measures required by the City shall also be incorporated into the Construction Noise Control Plan.	
Impact NOI-2: **Operational Noise.** With implementation of mitigation, the Project would not generate a substantial permanent increase in ambient noise levels in the vicinity of the Project due to operation of the Project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies.	S	*NOI-2.Stationary Sources Noise Reduction Plan.* To reduce potential noise impacts resulting from Project mechanical equipment and other stationary sources, including HVAC equipment and emergency generators, the Project Sponsor shall conduct a noise analysis to estimate noise levels of Project-specific mechanical equipment, based on the final equipment models and design features selected. This analysis shall be included in a Noise Reduction Plan to ensure that the noise levels of the equipment, once installed, are below the criteria specified in City Code Section 9.10.040 and presented in Table 3.6-4. The Noise Reduction Plan shall	LTS

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		include any necessary noise reduction measures required to reduce Project-specific mechanical equipment noise to less-than-significant levels. The plan shall demonstrate that, with the inclusion of selected measures, noise from equipment will be below the City Code noise limits. Potential noise reduction measures to reduce noise to levels below the City Code Section 9.10.040 noise limits include, but are not limited to: • Selecting quieter equipment, where feasible, • Utilizing silencers and acoustical equipment at vent openings, • Installing exhaust mufflers or silences, • Siting equipment farther from the roofline and increasing the distance between the source and noise-sensitive receptor, • Enclosing all equipment in a mechanical equipment room designed to reduce noise and / or placing barriers around the equipment to facilitate the attenuation of noise, and • Orienting or shielding equipment to protect noise-sensitive receptors to the greatest extent feasible. To result in meaningful attenuation from shielding, all walls, enclosures, or screens surrounding generators must be solid, with no holes or gaps. Attenuation also varies, based on the type of material used for the walls or screens. In addition, the Project Sponsor shall incorporate all feasible methods to reduce the noise levels identified above, as well as other feasible recommendations from the Noise Reduction Plan, into both the building design and operations as necessary to ensure that noise sources do not exceed the City Code noise limits at receiving properties.	

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		The Noise Reduction Plan shall be provided to the City prior to the issuance of building permits for each building and prepared by persons qualified in acoustical analysis and/or engineering. The plan shall demonstrate, with reasonable certainty, that noise from mechanical equipment selected for the Project, with attenuation features incorporated into the Project design, will not exceed the City Code noise limits, presented in Table 3.6-4, at noise-sensitive land uses located either within or external to the Project site.	
Impact NOI-3: Ground-borne Vibration and Noise Levels. The Project would generate excessive ground-borne vibration or ground-borne noise levels.	S	*NOI-3.1: Pile Driving Vibration Reduction Plan.* The Project Sponsor and/or contractor(s) shall develop a construction Vibration Reduction Plan to reduce vibration levels to the extent feasible. This plan shall be approved by the City prior to the issuance of building permits to confirm the actual minimization strategies that will be implemented. To reduce vibration levels from pile driving, alternative pile installation methods, such as those indicated below, shall be implemented under the supervision of a qualified acoustical consultant during the Project construction period. The goal of the measures shall be to achieve a PPV that is less than 0.10 in/sec., which is considered the strongly perceptible threshold. The Project Sponsor shall require the construction contractor to limit pile-driving activity so that the PPV at offsite uses is less than 0.10 in/sec, to the extent feasible. Alternative pile installation methods that do not require impact or vibratory pile driving, such as auger cast pressure-grouted displacement piles, cast-in-drilled-hole piles, or sonic pile drivers, shall be utilized where feasible. The Project Sponsor shall also ensure that the construction contractor appoints a coordinator who will serve as the point of contact for vibration-related complaints during	SU/M

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		Project construction. Contact information for the coordinator shall be posted at the Project site and on a publicly available Project website. The coordinator shall work with the construction team to adjust activities if complaints are received, to the extent feasible, or reschedule activities for a less sensitive time. The coordinator shall notify the City of all vibration-related complaints and actions taken to address the complaints.	
Impact NOI-4: Aircraft Noise. The Project would not expose people residing or working in the Project area to excessive noise levels from aircraft.	LTS	None Required	N/A
Impact C-NOI-1: **Cumulative Construction Noise.** The Project, in combination with other foreseeable development in the vicinity, would generate a substantial temporary increase in ambient noise levels due to construction activities in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies.	S	Implement Mitigation Measure NOI-1.1.	SU/M
Impact C-NOI-2: Cumulative Operational Noise. With implementation of mitigation, the Project, in combination with other foreseeable development in the vicinity, would not generate a substantial permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies	S	Implement Mitigation Measure NOI-2.1.	LTS

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
Impact C-NOI-3: Cumulative Ground-borne Vibration and Noise Levels. The Project, in combination with other foreseeable development in the vicinity, would generate excessive ground-borne vibration or ground-borne noise levels.	S	Implement Mitigation Measure NOI-3.1.	SU/M
3.7 Cultural Resources			
Impact CUL-1: Built Environment. The Project would not cause a substantial adverse change in the significance of a historical resource pursuant to State CEQA Guidelines Section 15064.5.	NI	None Required	N/A
Impact CUL-2: Archaeological Resources. With implementation of mitigation, the Project would not cause a substantial adverse change in the significance of a historical or archaeological resource pursuant to Section 15064.5.	S	*CUL-2-1: Develop and Implement Archaeological Monitoring Plan.* Given the potential for buried pre-European contact archaeological deposits to be encountered during Project construction, the following measures shall be undertaken to avoid any significant impacts on such resources. An Archaeological Monitoring Plan shall be developed by a qualified archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology[10] prior to any Project-related ground disturbance to determine specific areas of archaeological sensitivity within proposed work areas. The Archaeological Monitoring Plan shall detail when and where monitoring will take place. The plan shall include protocols that outline archaeological monitoring best practices, anticipated resource types, and an Unanticipated Discovery Protocol. The Archaeological Monitoring Plan shall, at a minimum, detail the role and responsibility of the monitor, the monitoring methods to be used, the communication	LTS

[10] U.S. Department of the Interior. 1983. *Archaeology and Historic Preservation; Secretary of the Interior's Standards and Guidelines.* Available: https://www.nps.gov/subjects/historicpreservation/upload/standards-guidelines-archeology-historic-preservation.pdf.

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		protocol, and the procedures to be followed in case of inadvertent discoveries. The Unanticipated Discovery Protocol shall describe steps to follow if unanticipated archaeological discoveries are made during Project work and identify a chain of contact, including, at a minimum, the following steps: halting construction, evaluating the find, and implementing appropriate mitigation measures. The Archaeological Monitoring Plan shall be submitted for review and approval by the City prior to the issuance of any grading or other permit that would allow ground disturbance on the Project site. *CUL-2.2: Conduct Cultural Resource Sensitivity Training Prior to Project-Related Ground Disturbance and Stop Work if Archaeological Deposits Are Encountered during Ground-Disturbing Activities.* Prior to any Project-related ground disturbance, the Project Sponsor shall ensure that all construction workers who directly oversee excavation or operate ground-disturbing vehicles receive training, which shall be overseen by a qualified profession archaeologist who is experienced in teaching non-specialists, to ensure that contractors can recognize archaeological artifacts and deposits in the event that any are discovered during construction. Construction personnel directly overseeing excavation, or operating ground-disturbing vehicles, will be required to participate in this preconstruction training. *CUL-2.3: Stop Work if Archaeological Deposits Are Encountered during Ground-Disturbing Activities.* If archaeological deposits are encountered during Project-related ground disturbance, work in the area (i.e., within a 100-foot radius) shall stop immediately. The onsite qualified archaeologist (if required) shall assess the find and determine the path forward. Archaeological deposits	

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		include, but are not limited to, flaked stone or ground stone, midden and shell deposits, historic-era refuse, and/or structure foundations. If any human remains are discovered during ground-disturbing activities, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie human remains. The remains would be treated in accordance with existing State laws, including PRC Section 5097.98 and Health and Safety Code Section 7050.5.	
Impact CUL-3. Human Remains. The Project could disturb human remains, including those interred outside of dedicated cemeteries, but such impacts would be adequately addressed through mitigation.	S	Implement Mitigation Measures CUL-2.1, CUL-2.2, and CUL-2.3.	LTS
Impact C-CUL-1: Cumulative Impacts on Archaeological Resources and Human Remains. The Project, in combination with other foreseeable development in the vicinity, could result in impacts on unknown archaeological resources and human remains, but such impacts would be adequately addressed through mitigation.	S	Implement Mitigation Measures CUL-2.1, CUL-2.2 and CUL-2.3	LTS
3.8 Biology			
Impact BIO-1: Special-Status Species—Nesting Birds and Bats. With implementation of mitigation, the Project would not have a substantial adverse effect on nesting birds or their nests or on bats.	S	*BIO-1.1 Protect Roosting Bats*. To avoid impacts on roosting bats that may utilize trees and/or vacant buildings in the Project area for day roosting, the Project Sponsor shall retain a qualified wildlife biologist to conduct a survey for roosting bats no sooner than 14 days prior to the start of demolition of any vacant buildings with ingress and egress points, as determined by a qualified wildlife biologist, that could be used by bats or the removal of suitable roosting vegetation (i.e., trees) for bats. If building demolition or	LTS

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		vegetation removal efforts do not begin within the 14 days following the survey for roosting bats, another survey shall be required. If roosting bats are detected, the biologist shall enact a 150-foot (minimum) no-work buffer from the perimeter of the area the bats are thought to be occupying and confer with CDFW to determine potential roost protection or roost eviction practices, such as installing one-way exclusion devices or using lights to deter roosting. After conferring with CDFW, the protective buffer may be adjusted, based on specific roost needs. Once bats have been protected by a buffer, construction may resume outside the buffered area. The buffer may be removed and construction may resume inside the buffered area once the bats have been safely evicted from roosting sites (as approved by CDFW), thereby avoiding take, as defined by CESA and the California Fish and Game Code.	
Impact BIO-2: Loss or Degradation of Riparian Habitat or Sensitive Natural Communities. The Project would not 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 Wildlife or U.S. Fish and Wildlife Service.	NI	None Required	N/A
Impact BIO-3: State or Federally Protected Wetlands. The Project would not result in substantial adverse effects on State or federally protected wetlands through direct removal, filling, hydrological interruption, or other means.	LTS	None Required	N/A
Impact BIO-4: Impede Use of Native Wildlife Nursery Sites or Interfere with Movement of Native Migratory Wildlife Species. With implementation of	S	*BIO-4.1: Protect Nesting Birds*. To the extent feasible, the Project Sponsor and its contractor shall avoid conducting vegetation removal during the migratory bird season	LTS

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
mitigation, the Project would not interfere substantially with the movement of birds or with their active nests.		(February 1 through August 31). If Project-related activities must take place during the migratory bird season, the Project Sponsor shall retain a qualified wildlife biologist to conduct a survey for nests of migratory birds. Surveys for nesting migratory birds shall occur within 3 days prior to the commencement of ground disturbance and vegetation removal in areas that will be affected by Project construction activities. Multiple nest survey shall be required if construction is phased or when construction work stops for more than 2 weeks at a portion of the site where suitable nesting habitat remains. If construction is ongoing for multiple years, these surveys *shall* be conducted each year. If an active nest is discovered, a no-disturbance buffer zone around the nest tree or shrub, or, for ground-nesting species, the nest itself, shall be established. The no-disturbance zone shall be marked with flagging or fencing that can be easily identified by the construction crew and shall not affect the nesting bird or attract predators to the nest location. In general, the minimum nest buffer zone widths shall be as follows: 50 feet (radius) for non-raptor ground-nesting species, 50 feet (radius) for non-raptor shrub- and tree-nesting species, and 300 feet (radius) for raptor species. Buffer widths may be modified, based on discussion with CDFW. Buffers shall remain in place as long as the nest is active or young remain in the area and are dependent on the nest. *BIO-4.2 Implement Bird-Safe Design Standards into Project Buildings and Lighting Design*. The Project Sponsor, either directly or through its contractor, shall prepare and implement a set of specific standards in the site plans submitted for approval by the City for minimizing hazards to	

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Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		birds. These specific standards shall include the following measures to minimize hazards to birds: • Reduce large areas of transparent or reflective glass • Locate water features and other bird habitat away from building exteriors to reduce reflection • Reduce the visibility of landscaped areas behind glass or eliminate them • To the extent feasible, take appropriate measures to avoid the use of unnecessary lighting at night, especially during bird migration season (i.e., February–May and August–November), through the installation of motion sensors for lighting, automatic shut-off mechanisms, downward-facing exterior light fixtures, or other effective measures to the extent possible.	
Impact BIO-5: Conflicts with Local Policies or Ordinances Protecting Biological Resources. The Project would not result in conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	LTS	None Required	N/A
Impact BIO-6: Conflict with a Habitat Conservation Plan or Natural Community Conservation Plan. The Project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan.	NI	None Required	N/A
Impact C-BIO-1: Cumulative Special-Status Species—Nesting Birds and Bats. With implementation of mitigation, the Project, in combination with other foreseeable development in the vicinity, would not have	S	Implement Mitigation Measures BIO-1.1 and BIO-4.1	LTS

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
a substantial adverse effect on nesting birds or their nests or on bats.			
Impact C-BIO-2: Cumulative State or Federally Protected Wetlands. The Project, in combination with other foreseeable development in the vicinity, would not result in substantial adverse effects on State or federally protected wetlands through direct removal, filling, hydrological interruption, or other.	LTS	None Required	N/A
Impact C-BIO-3: Cumulative Impede Use of Native Wildlife Nursery Sites or Interfere with Movement of Native Migratory Wildlife Species. With implementation of mitigation, the Project, in combination with other foreseeable development in the vicinity, would not interfere substantially with the movement of birds or with their active nests.	S	Implement Mitigation Measure BIO-4.1.	LTS
Impact C-BIO-4: Cumulative Conflicts with Local Policies or Ordinances Protecting Biological Resources. The Project, in combination with other foreseeable development in the vicinity, would not result in conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	LTS	None Required	N/A
3.9 Geology and Soils			
Impact GEO-1: Seismicity. The Project would not directly or indirectly cause potential substantial or adverse effects, including the risk of loss, injury, or death, involving rupture of a known earthquake fault, strong seismic ground shaking, or seismically related ground failure.	LTS	None Required	N/A

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Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
Impact GEO-2: Erosion or Loss of Topsoil. The Project would not result in substantial soil erosion or the loss of topsoil.	LTS	None Required	N/A
Impact GEO-3: Soil Instability. The Project would be located on soil that is or would become unstable as a result of the Project and potentially result in lateral spreading, subsidence, liquefaction, or collapse, but such impacts would be adequately addressed by mitigation.	S	*GEO-3.1: Static Settlement, Subsidence, or Collapse.* The Project Sponsor shall define the extent and depth of fill materials that would be placed on the Project site in the Project plans. The Project Sponsor shall hire a qualified geotechnical engineer to prepare a design-level geotechnical report for the Project, which shall include the following: • A design-level analysis of potential total and differential settlement associated with the placement of defined amounts of fill material, construction of other improvements, and dewatering activities on the Project site. The settlement analysis shall define a buffer distance away from the Project site within which settlement could occur as a result of the Project and describe the settlement amounts that could occur within this buffer distance. • Allowable settlement estimates for planned and existing improvements, both on the Project site and within the buffer distance described above, which shall account for estimated settlement amounts developed for existing and planned improvements on surrounding properties. • Recommendations to minimize the amount of subsidence/settlement and differential settlement that would result from the Project (e.g., minimizing the placement of fill, using lightweight fill, employing shoring systems that minimize the amount of excavation dewatering required). • Recommendations to mitigate potential damage to proposed and existing improvements (e.g., structures,	LTS

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		pavement surfaces, roadways, utilities), both on and off the Project site, that could result from settlement of existing unstable soil on and near the Project site as a result of the Project. Such recommendations could include the installation of flexible utility couplings or relocation of utilities. • If the settlement analysis indicates that existing offsite improvements could be adversely affected by settlement as a result of the Project, a pre-construction survey (e.g., crack survey) and settlement monitoring program shall be developed and implemented before and during construction for existing improvements that may be affected by the Project. This survey shall be used as a baseline for evaluating any damage claims; it shall also be used to assist the contractor when assessing the performance of shoring systems. The pre-construction survey shall record the elevation and horizontal position of all existing installations within the buffer distance determined by the settlement analysis, as described above, and shall consist of, but not be limited to, photographs, video documentation, and topographic surveys. The settlement monitoring program shall include the installation of inclinometers and groundwater monitoring wells within an approximate distance of 5 to 15 feet from excavations toward existing improvements. Settlement surveys shall be performed on a weekly basis during excavation and on a monthly basis starting approximately 1 month after the excavation has been completed and continuing for a period of at least 2 years after the completion of construction activities (or other frequency and duration recommended by the geotechnical engineer of record).	

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		The Project Sponsor shall submit the Project plans and design-level geotechnical report to the City for review and approval prior to the City issuing grading or building permits. The Project Sponsor shall repair damage to existing or planned improvements if settlement monitoring identifies obvious damage or an exceedance of allowable settlement amounts. or an exceedance of allowable settlement amounts. The repair of damage shall be performed prior to the City issuing a certificate of occupancy for the applicable portion of the Project.	
Impact GEO-4: Expansive Soil. The Project would not create substantial direct or indirect risks to life or property as a result of being located on expansive soil.	LTS	None Required	N/A
Impact GEO-5: Septic Tanks and Alternative Wastewater Systems. The Project does not have soils that would be incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.	NI	None Required	N/A
Impact GEO-6: Paleontological Resources. Construction of the Project could directly or indirectly destroy a unique paleontological resource or site or unique geological feature, but such impacts would be adequately addressed by mitigation.	S	*GEO-6.1: Paleontological Resources.* Monitor for Discovery of Paleontological Resources, Evaluate Found Resources, and Prepare and Follow a Recovery Plan for Found Resources. Given the potential for paleontological resources to be present in construction areas at ground surface and at excavation depths in sensitive geologic units in the paleontological resources study area, the following measures shall be undertaken to avoid any potentially significant effect on paleontological resources from the improvements. Before the start of any drilling or pile-driving activities, the Project Sponsor shall retain a qualified paleontologist, as defined by the Society of Vertebrate	LTS

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Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		Paleontology, who is experienced in teaching non-specialists. The qualified paleontologist shall be approved by the City prior to the start of any drilling or pile-driving activities. Prior to construction, the qualified paleontologist shall prepare a general (high-level) recovery plan, which could be tailored to a specific area in the event of a discovery. The qualified paleontologist shall train all construction personnel, including the site superintendent, who are involved with earthmoving activities regarding the possibility of encountering fossils, the appearance and types of fossils that are likely to be seen during construction, and proper notification procedures should fossils be encountered. Procedures to be conveyed to workers include halting construction within 50 feet of any potential fossil find and notifying a qualified paleontologist, who shall evaluate the significance. The qualified paleontologist shall also visit the Project site once per week during earthmoving to verify that workers are following the established procedures, unless determined by the qualified paleontologist that more frequent visits are warranted. If paleontological resources are discovered during earthmoving activities, the construction crew shall immediately cease work within 50 feet of the find and notify the City and Project Sponsor. Construction work in the affected areas shall remain stopped or be diverted to allow recovery of fossil remains in a timely manner. The Project Sponsor shall retain a qualified paleontologist (who has been approved by the City) to evaluate the resource and tailor the general recovery plan to the specific nature of the discovery, in accordance with Society of Vertebrate	

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		Paleontology guidelines.[11] The tailored recovery plan may include a field survey, construction monitoring, sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings. The City shall review and approve the tailored recovery plan prior to recommendations being implemented. Recommendations in the tailored recovery plan that are determined by the City to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resources were discovered. The Project Sponsor, with City oversight, shall be responsible for ensuring that the monitor's recommendations regarding treatment and reporting are implemented.	
Impact C-GEO-1: Cumulative Seismicity Impacts. The Project, in combination with other foreseeable development in the vicinity, 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, strong seismic ground shaking, or seismically related ground failure.	LTS	None Required	N/A
Impact C-GEO-2: Cumulative Erosion or Loss of Topsoil. The Project, in combination with other foreseeable development in the vicinity, would not result in substantial soil erosion or loss of topsoil.	LTS	None Required	N/A

[11] Society of Vertebrate Paleontology. 2010. *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*. Available: http://vertpaleo.org/Membership/Member-Ethics/SVP_Impact_Mitigation_ Guidelines.aspx. Accessed: September 1, 2023.

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
Impact C-GEO-3: Cumulative Collapse of Unstable Soil. The Project, in combination with other foreseeable development in the vicinity, would not result in collapse of unstable soil.	S	Implement Mitigation Measure GEO-3.1.	LTS
Impact C-GEO-4: Cumulative Settlement or Subsidence of Unstable Soil. The Project, in combination with other foreseeable development in the vicinity, could result in static settlement or subsidence, but such impacts would be adequately addressed by mitigation.	S	Implement Mitigation Measure GEO-3.1.	LTS
Impact C-GEO-5: Cumulative Expansive Soil Impacts. The Project, in combination with other foreseeable development in the vicinity, would not create substantial direct or indirect risks to life or property as a result of being located on expansive soil.	LTS	None Required	N/A
Impact C-GEO-6: Cumulative Paleontological Resources Impacts. The Project, in combination with other foreseeable development in the vicinity, could result in a substantial effect on paleontological resources, but such impacts area adequately addressed by mitigation	S	Implement Mitigation Measure GEO-6.1.	LTS
3.10 Hydrology and Water Quality			
Impact WQ-1: Water Quality. With implementation of mitigation, the Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.	S	Implement Mitigation Measure HAZ-2.1. *WQ-1.1: Dewatering.* The Project Sponsor shall prepare a Dewatering Plan that shall be submitted to Valley Water and City for review and approval. The Dewatering Plan shall account for phasing of excavation/construction activities and include the following:	LTS

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		• A detailed analysis of soil formations that would be affected by excavation and dewatering activities; • A detailed description of proposed excavation shoring systems; • The proposed dewatering locations, flow rates, and durations that would be required, based on the soil formations present and the proposed excavation activities and shoring systems; • The design of the proposed dewatering systems and effluent treatment systems; • Geotechnical analysis and hydraulic modeling to demonstrate the anticipated performance of the dewatering systems and potential changes to surrounding hydrogeologic conditions, including changes in groundwater levels and flow directions, potential movement of contaminated groundwater, potential saltwater intrusion, and potential settlement due to subsidence. • Proposed dewatering effluent discharge locations and flow rates; and • Adequate onsite storage capacity to limit or cease dewatering discharges during times of heavy rain/flooding. The Project shall utilize shoring systems, such as soil/cement cutoff walls, if deemed necessary by Valley Water to ensure sustainable management of the Santa Clara Subbasin, that limit dewatering volumes and durations to the maximum extent possible. The designs for the proposed shoring systems and dewatering systems as well as the Dewatering Plan shall be revised as necessary, based on comments from the City or Valley Water. The Dewatering	

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		Plan shall be approved by Valley Water and the City prior to the issuance of permits by Valley Water for the installation of dewatering wells and permits from the City for construction of shoring and dewatering systems. *WQ-1.2: Wells.* The Project Sponsor shall evaluate the potential presence of wells on the Project site, based on Valley Water records. If suspected wells have already been properly destroyed, the Project Sponsor shall provide evidence to Valley Water to demonstrate this. If it cannot be readily determined whether any wells are present on the Project site or whether the suspected wells have been properly destroyed, the Project Sponsor shall further investigate the locations of suspected wells. This investigation shall be performed under the direction of Valley Water and may include the use of geophysical surveying methods, potholing, excavation, or other exploratory activities, as deemed necessary by Valley Water, to evaluate the locations and conditions of the suspected wells. If any wells are identified at the Project site that have not been properly destroyed, the Project Sponsor shall properly destroy the wells under permits from Valley Water. The Project Sponsor shall provide the City with evidence that suspected wells on the Project site have been investigated and properly destroyed, if necessary, to the satisfaction of Valley Water prior to the City issuing demolition or grading permits for the Project. If any well is discovered during construction that has not been properly destroyed, the well shall be protected until it can be properly destroyed under permits from Valley Water at the soonest possible time.	
Impact WQ-2: Groundwater Supplies. With implementation of mitigation, the Project would not	S	Mitigation Measures GEO-3.1 and WQ-1.1.	LTS

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project would impede sustainable groundwater management of the basin.		*WQ-2.1: Water Supply.* The Project shall incorporate specific measures from the MWENDO into the Project design, as requested by Valley Water, to ensure that projected use of water by the Project is consistent with Valley Water's countywide water-supply planning efforts and the WSA. The Project Sponsor shall provide the City and Valley Water with evidence of approval from SBWR for the Project's use of recycled water to reduce the demand generated by the Project to the extent feasible, based on Project design and operation. The water-saving features of the Project design and WSA prepared for the Project shall be provided to Valley Water for review. Additional water-saving measures shall be incorporated into the Project design if requested by Valley Water or the City, ensuring that the Project would be consistent with the WSA and Valley Water's countywide water-supply planning efforts. The water-saving features of the Project design shall be approved by Valley Water and the City prior to the City issuing building permits for the Project. The following specific measures from the MWENDO shall be incorporated into the Project design, as applicable: • Install hot-water recirculation systems; • Install graywater dual-distribution plumbing; • Incorporate alternative water sources (e.g., cisterns) and recycled water connections as feasible; • Install pool and spa covers; • Encourage reuse of recycled water, graywater, and rainwater/stormwater in new development and remodels through the installation of dual plumbing for irrigation, toilet flushing, cooling towers, and other non-potable uses; • Require dedicated landscape meters where applicable;	

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		• Require installation of separate submeters to each unit in multi-family developments and individual spaces within commercial buildings to encourage efficient water use; and • Install weather- or soil-based irrigation controllers.	
Impact WQ-3: Drainage Patterns. With implementation of mitigation, the Project would not substantially alter the existing drainage pattern of the Project site or area in a manner that would result in substantial erosion or siltation onsite or offsite, substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite, create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or impede or redirect floodflows.	S	*WQ-3.1: Drainage and Flooding during Construction and Operation.* The Project Sponsor shall prepare a Hydraulic Study to evaluate whether that the existing and proposed stormwater drainage systems that would receive runoff from the Project site would be capable of conveying the 10-year peak runoff from the Project site and flows from the Project site during a 100-year flood event would remain within public roadway limits and would not extend into private property, per City requirements. For Project construction, the Hydraulic Study shall also evaluate stormwater runoff patterns during all phases, including surface runoff flow directions and estimated discharge rates. For Project operation, the Hydraulic Study shall also evaluate the proposed changes to drainage patterns at the Project site and placement of fill material and structures within the special flood hazard area currently mapped within Democracy Way and determine whether such changes would result in an increase in the base flood elevation by more than 1 foot in any areas within Santa Clara when combined with changes in flooding conditions from all other existing and anticipated development. If the Hydraulic Study finds that the Project would not meet the required stormwater conveyance and flooding conditions above, the Project design shall be modified to the satisfaction of the City to meet these conditions. Such design modifications could include additional stormwater retention systems, such as swales or underground cisterns/storage pipes with metered	LTS

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		outlets, and/or changing the size and location of proposed storm drain systems on the Project site. The Hydraulic Study shall be submitted to the City for review and approval prior to the City issuing grading or building permit. *WQ-3.2: Construction Stormwater Drainage.* The Project Sponsor shall prepare and implement a Construction-Period Stormwater Drainage Control Plan, which shall be submitted to the City for review and approval prior to the City issuing grading or building permits. The Construction-Period Stormwater Drainage Control Plan shall account for the phasing of construction activities and include the following: • A detailed construction schedule for the entire Project that includes the timing for construction of new stormwater drainage systems and removal of existing stormwater drainage systems. • Figures depicting the proposed grading of the Project site, including areas of excavation and the placement of fill during various phases of construction, and the drainage control systems that would be utilized during the various phases of construction (e.g., temporary berms and swales, sumps/pumps for subsurface structures, existing and planned stormwater drainage systems); • A summary of detailed hydraulic evaluations of stormwater runoff patterns (see Mitigation Measure WQ-3.1), including surface runoff flow directions and estimated discharge rates for all construction phases. • The proposed construction-period drainage control systems shall be designed such that the estimated rates and volumes of stormwater discharged to existing or proposed offsite stormwater drainage systems shall not increase beyond the existing condition. If rates and	

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Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		volumes of stormwater discharge to existing or proposed offsite stormwater drainage systems increase beyond the existing condition, the Construction-Period Stormwater Drainage Control Plan shall demonstrate that the existing or proposed offsite stormwater drainage systems have the capacity necessary to convey the increased discharges. • Timing restrictions and methods for rerouting flows from existing storm drain systems during modification to ensure that construction activities do not impede flows within the systems. • Special precautions to be taken for construction activities within special flood hazard zones, including not allowing the storage of hazardous materials or placement of features that could impede or redirect floodflows within special flood hazard zones.	
Impact WQ-4: Release of Pollutants Due to Inundation. In flood hazard, tsunami, or seiche zones, the Project would not risk the release of pollutants due to inundation by flooding, tsunami, or seiche with implementation of mitigation.	S	Implement Mitigation Measure WQ-3.2.	LTS
Impact WQ-5: Conflict with a Water Quality Control Plan or Sustainable Groundwater Management Plan. With implementation of mitigation, the Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	S	Implement Mitigation Measures WQ-1.1, WQ-2.1, HAZ-2.1, and GEO-3.1.	LTS
Impact C-WQ-1: Cumulative Water Quality Impacts. With implementation of mitigation, the Project, in combination with other foreseeable development in the vicinity, would not violate any water quality standards	S	Implement Mitigation Measures WQ-1.1, WQ-1.2, and HAZ-2.1.	LTS

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Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.			
Impact C-WQ-2: Cumulative Groundwater Supply Impacts. With implementation of mitigation, the Project, in combination with other foreseeable development in the vicinity, would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project would impede sustainable groundwater management of the basin.	S	Implement Mitigation Measures GEO-3.1, WQ-1.1, and WQ-2.1.	LTS
Impact C-WQ-3: Cumulative Drainage Pattern Impacts. With implementation of mitigation, the Project, in combination with other foreseeable development in the vicinity, would not substantially alter the existing drainage pattern of the Project site or area in a manner that would result in substantial erosion or siltation onsite or offsite, substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite, create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or impede or redirect floodflows.	S	Implement Mitigation Measures WQ-3.1 and WQ-3.2.	LTS
Impact C-WQ-4: Cumulative Release of Pollutants Due to Inundation. In flood hazard, tsunami, or seiche zones, the Project, in combination with other foreseeable development in the vicinity, would not risk the release of pollutants due to inundation with implementation of mitigation.	S	Implement Mitigation Measure WQ-3.2.	LTS

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Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
Impact C-WQ-5: Cumulative Conflicts with a Water Quality Control Plan or Sustainable Groundwater Management Plan. With implementation of mitigation, the Project, in combination with other foreseeable development in the vicinity, would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	S	Implement Mitigation Measures WQ-1.1, WQ-2.1, HAZ-2.1, and GEO-3.1.	LTS
3.11 Hazards and Hazardous Materials			
Impact HAZ-1: Routine Transport, Use, or Disposal of Hazardous Materials. The Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	LTS	None Required	N/A
Impact HAZ-2: Accidental Releases of Hazardous Materials. With implementation of mitigation, 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.	S	*HAZ-2.1 Subsurface Contamination.* The Project Sponsor shall engage with an appropriate regulatory agency (e.g., the San Francisco Bay Regional Water Board, Santa Clara County DEH, DTSC) to provide oversight for additional subsurface investigation at the Project site, prepare and implement a Soil and Groundwater Management Plan (SGMP), and implement remedial actions, as necessary and required by the appropriate regulatory agency. When site uses and building layouts/designs are finalized and available, additional soil vapor testing shall be performed to evaluate the need for vapor intrusion mitigation measures. The additional subsurface investigation activities shall include, to the extent required by the appropriate regulatory agency, investigation of potential contamination source areas/features of environmental concern (e.g., former hazardous materials storage areas, clarifiers/sumps/vaults and associated piping, possible UST areas) to define the extent of subsurface contamination at the Project site. The	LTS

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		SGMP shall outline the soil and groundwater management protocols that would be implemented during redevelopment of the Project site to ensure that construction workers, the public, future occupants, and the environment would not be exposed to hazardous materials that may be present in the subsurface of the Project site. The SGMP shall include, at a minimum, the following procedures, to be implemented during construction: • Health and safety requirements for construction workers who may handle contaminated soil or groundwater • Guidelines for controlling airborne dust, vapors, and odors • Air monitoring requirements for methane and VOCs during construction • Guidelines for controlling hot work (e.g., welding) in areas where methane concentrations approach or exceed 10 percent of the lower explosive limit (i.e., 0.5 percent) • Regulatory notification requirements if undocumented contamination, features of environmental concern (e.g., USTs or clarifiers/sumps/vaults and associated piping), or elevated methane levels are encountered, which shall include notification of the City's Community Risk Reduction Division for USTs and the fire department for hot work in methane areas • Inspection and sampling protocols for contaminated soil or groundwater by a qualified environmental professional • Guidelines for groundwater dewatering, treatment, and disposal to ensure compliance with applicable regulations/permit requirements	

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Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		• Guidelines for the segregation of contaminated soil, stockpile management, characterization of soil for offsite disposal or onsite re-use, and importing of clean fill material The SGMP shall be submitted to applicable regulatory oversight agencies, including the City, for review and approval prior to the City issuing demolition or grading permits for the Project. Remedial actions that may be required for the Project could include, but would not necessarily be limited to, removal of hazardous material containers/features (e.g., USTs, piping, clarifiers/sumps/vaults), removal and offsite disposal of contaminated soil or groundwater, in-situ treatment of contaminated soil or groundwater, or implementation of engineering/institutional controls (e.g., capping of contaminated soils, installation of vapor intrusion mitigation systems, establishment of deed restrictions). If remedial actions are required for any portion of the Project site, the Project Sponsor shall submit to the City evidence of approvals from all applicable regulatory oversight agencies for any proposed remedial action plans prior to the City issuing any demolition, grading, or building permits for that portion of the Project site. The Project Sponsor shall submit to the City evidence of approval(s) from all applicable regulatory oversight agencies for the completion of remedial actions on the applicable portion of the Project site prior to the City issuing a certificate of occupancy for any buildings located on said portion of the Project site.	

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Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
Impact HAZ-3: Hazardous Emissions within 0.25 Mile of Schools. The Project would not emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.	NI	None Required	N/A
Impact HAZ-4: Government Code Section 65962.5. The Project would not be located on a site included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment.	NI	None Required	N/A
Impact HAZ-5: Aviation Hazards. The Project would not result in a safety hazard or excessive noise for people residing or working in the Project area due to proximity to San José International Airport.	LTS	None Required	N/A
Impact HAZ-6: Emergency Response and Evacuation. The Project would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LTS	None Required	N/A
Impact HAZ-7: Wildfire. The Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.	NI	None Required	N/A
Impact C-HAZ-1: Cumulative Routine Transport, Use, or Disposal of Hazardous Materials. The Project, in combination with other foreseeable development in the vicinity, would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	LTS	None Required	N/A

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Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
Impact C-HAZ-2: Cumulative Accidental Releases of Hazardous Materials. With implementation of mitigation, the Project, in combination with other foreseeable development in the vicinity, 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.	S	Implement Mitigation Measure HAZ-2.1.	LTS
Impact C-HAZ-3: Cumulative Aviation Hazards. The Project, in combination with other foreseeable development in the vicinity, would not result in a safety hazard or excessive noise for people residing or working in the Project area due to proximity to San José International Airport.	LTS	None Required	N/A
Impact C-HAZ-4: Cumulative Emergency Response and Evacuation. The Project, in combination with other foreseeable development in the vicinity, would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LTS	None Required	N/A
3.12 Population and Housing			
Impact POP-1: Population Growth. Implementation of the Project would not 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 of other infrastructure).	LTS	None Required	N/A
Impact POP-2: Displacement of Existing People or Housing. The Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.	NI	None Required	N/A

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Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
Impact C-POP-1: Cumulative Population and Housing Impacts. The Project, in combination with other foreseeable development in the vicinity, would not induce substantial unplanned population growth within Santa Clara and region.	LTS	None Required	N/A
3.13 Public Services			
Impact PS-1: Fire Services and Facilities. The Project would not result in the need for new or physically altered fire service facilities.	LTS	None required	N/A
Impact PS-2: Police Services and Facilities. The Project would not result in the need for new or physically altered police service facilities.	LTS	None required	N/A
Impact PS-3: School Facilities. The Project would not result in the need for new or physically altered school facilities.	LTS	None Required	N/A
Impact PS-4: Parks and Recreation Facilities. The Project would not result in the need for new or physically altered parks and recreational facilities, would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration would result, and would not include or require construction of recreational facilities that might have an adverse physical effect.	LTS	None Required	N/A
Impact PS-5: Library Facilities. The Project would not result in the need for new or physically altered library facilities.	LTS	None Required	N/A

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Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
Impact C-PS-1: Cumulative Public Service Impacts. The Project, in combination with other foreseeable development in the City, would not result in the need for new or physically altered public service facilities.	LTS	None Required	N/A
3.14 Tribal Cultural Resources			
Impact TCR-1: Tribal Cultural Resources. With implementation of mitigation, the Project would not cause a substantial adverse change in the significance of a tribal cultural resource that is a) listed or eligible for listing in the CRHR or in a local register of historical resources, as defined in PRC Section 5020.1(k), or b) determined by the lead agency to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1.	S	Implement Mitigation Measures CUL-2.1, CUL-2.2, and CUL-2.3.	LTS
Impact C-TCR-1: Cumulative Impacts on Tribal Cultural Resources. The Project, in combination with other foreseeable development in the vicinity, could result in impacts on tribal cultural resources, but such impacts would be adequately addressed by mitigation.	S	Implement Mitigation Measures CUL-2.1, CUL-2.2, and CUL-2.3.	LTS
3.14 Utilities and Service Systems			
Impact UT-1: Utility Relocation, Construction, or Expansion. With implementation of mitigation, the Project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electricity, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	S	Implement Mitigation Measures WQ-3.1 and WQ-3.2.	LTS

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Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
Impact UT-2: Water Supply. The Project would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years.	LTS	None Required	N/A
Impact UT-3: Wastewater Treatment Capacity. The Project would result in a determination by the wastewater treatment provider that serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.	LTS	None Required	N/A
Impact UT-4: Solid Waste Capacity. 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.	LTS	None Required	N/A
Impact UT-5: Solid Waste Regulations. The Project would not fail to comply with federal, State, and local management and reduction statutes and regulations related to solid waste.	NI	None Required	N/A
Impact C-UT-1: Cumulative Utilities Impacts. The Project, in combination with other foreseeable development in the vicinity, would not require or result in the construction of new water, wastewater, stormwater treatment, electricity, or telecommunication facilities; result in a determination of inadequate wastewater treatment capacity; or generate solid waste in excess of State or local standards.	LTS	None Required	N/A

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Chapter 1
Introduction

1.1 Purpose of This Environmental Impact Report

This Draft Environmental Impact Report (Draft EIR) for the Mission Point Project (Project) has been prepared by the Project's Lead Agency, the City of Santa Clara (City), in conformance with the provisions of the California Environmental Quality Act (CEQA) statute and State CEQA Guidelines. The Lead Agency is the public agency with principal responsibility for carrying out or approving a project.

This Draft EIR assesses potentially significant impacts that could result from the Project. As defined in State CEQA Guidelines Section 15382, a "significant effect on the environment" is:

> . . . 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. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.

As stated in the State CEQA Guidelines 15121(a), an EIR is an "informational document." It is intended to inform public agency decision-makers and the public of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to a project. The purpose of this Draft EIR is to provide the City, responsible and trustee agencies, other public agencies, and the public with detailed information about the environmental effects that could result from implementing the Project; examine and set forth feasible methods of mitigating any adverse environmental impacts should the Project be approved; and consider feasible alternatives to the Project. The City will use the EIR, along with other information in the public record, to determine whether to approve, modify, or deny the Project and specify any applicable environmental conditions or mitigation measures as part of the Project approvals.

1.2 Project Overview

Kylli, Inc. (Project Sponsor), the U.S. real estate subsidiary of Genzon Investment Group, proposes a mixed-use development on a 48.6-acre site (Project site) in Santa Clara, California. If approved by the City Council and regulatory agencies, the Project would involve demolishing existing office buildings and establishing a new mixed-use neighborhood. The Project site is currently designated in the City of Santa Clara 2010–2035 General Plan (General Plan) for High-Intensity Office/Research-and-Development (R&D) uses. The City's Zoning Code designates the Project site as Light Industrial (ML). To accommodate high-intensity, urban-oriented development such as the Project, a new General Plan land use designation (Urban Center Mixed Use) is proposed within the category of Mixed-Use designations. In addition, the Project site would be rezoned to Planned Development (PD), in accordance with Chapter 18.54 of the City Zoning Ordinance (Regulations for PD – Planned Development and Combined Zoning Districts), thereby providing a transit-oriented "live, work, socialize, and recreate" environment.

The Project site is located on nine parcels (assessor's parcel numbers [APNs] 104-04-150, 104-04-142, 104-04-143, 104-04-151, 104-04-112, 104-04-113, 104-04-065, 104-04-111, 104-04-064), totaling

approximately 46 acres, as well as Democracy Way, a privately owned street subject to an existing public right-of-way (ROW) easement that covers approximately 2.6 acres, for a combined total Project area of 48.6 acres. The Project would result in 4,913,000 gross square feet (gsf) of new development, including approximately 1.8 million gsf of residential uses (up to 1,800 units), approximately 3 million gsf of office/R&D[1] space, approximately 100,000 gsf of neighborhood retail uses, and approximately 10,000 gsf of childcare facilities, along with 3,000 gsf of community spaces. An approximately 18,000 gsf electrical substation would also be constructed to support the Project. Parking would be provided in a mix of subsurface and aboveground parking facilities. In addition, the Project would include up to approximately 16 aces of publicly accessible open space as well as approximately 10 acres of private open space for residential and office uses;[2] new bicycle, pedestrian, and vehicular circulation routes; upgraded and expanded infrastructure; and the new electrical substation.[3]

1.3 CEQA Process

Notice of Preparation

The City prepared a Notice of Preparation (NOP) for the Project, included as Appendix A to this Draft EIR. The NOP was released for a 30-day public review period, beginning April 18, 2022, and ending May 18, 2022. One virtual public scoping meeting was held on May 4, 2022. The NOP noted that the Project may have significant effects on the environment and that an EIR would be prepared. The NOP was sent to individuals, local interest groups, adjacent property owners, and responsible and trustee State of California (State) and local agencies that have jurisdiction over or an interest in environmental resources and/or conditions in the vicinity of the Project site. The purpose of the NOP was to allow various private and public entities to transmit their concerns and comments on the scope and content of the Draft EIR, focusing on specific information related to each individual's or group's interest or agency's statutory responsibility early in the environmental review process.

In response to the NOP, letters were received from the following agencies:

- Native American Heritage Commission
- City of Sunnyvale
- County of Santa Clara Roads and Airports Department
- Santa Clara Valley Water District
- Santa Clara Valley Transportation Authority

In addition, comments were made by individuals during the virtual public scoping meeting. The NOP comments focused on population/housing, biological resources, transportation, project design, hazards, public services, utilities, and general issues regarding the schedule, public outreach, parking, and support for the Project. A summary of the NOP comments is included in Appendix A of this Draft EIR. The City considered all comments and related information received.

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1 Although the end uses are not yet determined, the Project may include lab/R&D uses; for CEQA purposes, up to 30 percent laboratory use has been assumed. All future references to "office" include permitted lab/R&D uses.

2 Additional private open space will be provided on terraces, balconies, and rooftops. These spaces are not included as part of the calculations.

3 The size, design, and location of the substation are subject to final discussions with Silicon Valley Power.

The NOP concluded that the following environmental resource areas would be addressed as separate sections in this Draft EIR:

- Land Use and Planning
- Transportation
- Air Quality
- Greenhouse Gas Emissions
- Energy
- Noise
- Cultural Resources
- Biological Resources
- Geology and Soils
- Hydrology and Water Quality
- Hazards and Hazardous Materials
- Population and Housing
- Public Services and Recreation
- Tribal Cultural Resources
- Utilities and Service Systems
- Cumulative Impacts, as integrated into each of the topical sections

The Project would not result in any environmental impacts related to agricultural and forestry resources, mineral resources, or wildfire because none of these resources, or risks as to wildfire, exist at the Project site. The Project would also not result in environmental impacts to aesthetics because it is a qualifying infill project within a transit priority area. Under Senate Bill 743, aesthetic impacts are not considered significant impacts to the environment for qualifying infill projects. A detailed analysis of these topics is therefore not included in the Draft EIR; however, these topics are briefly discussed in Chapter 3, *Environmental Impact Analysis*.

Draft EIR

Impact Analysis

This Draft EIR analyzes significant effects that could result from the Project. State CEQA Guidelines Section 15382 defines a significant effect on the environment as a substantial adverse change in the physical conditions that exist in the area affected by a project. Pre-project environmental conditions (the environmental baseline) are those conditions that exist at the time the NOP is published and are considered in determining whether the project would have a significant effect. The significance thresholds applied by the City for each environmental resource area presented in this Draft EIR are based on the State CEQA Guidelines, Appendix G, Environmental Checklist Form. In addition, this Draft EIR uses City-adopted significance criteria for traffic impacts. Where significant impacts are identified, the Draft EIR recommends feasible mitigation measures to reduce, eliminate, or avoid the significant impacts and identifies which significant impacts are unavoidable. Cumulative impacts (i.e., two or more individual effects that, when considered together, are considerable or compound or increase other environmental impacts) are discussed for each environmental resource area. This document also discusses alternatives to the Project in Chapter 5, *Alternatives*.

In accordance with Sections 15143 and 15126 of the State CEQA Guidelines, this Draft EIR provides an analysis of the significant effects on the environment that could result from construction and operation of the Project. Section 15131 of the State CEQA Guidelines specifies that "the intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes." Therefore, this Draft EIR does not treat economic or social effects of the Project as significant effects on the environment under CEQA, unless they result in physical changes to the environment. In addition, pursuant to Section 15145 of the State CEQA Guidelines,

if it is determined that a potential impact is too speculative for evaluation, this condition is noted, and further discussion of the impact is not necessary.

Public Review

This Draft EIR is considered a draft under CEQA because it must be reviewed and commented upon by public agencies, organizations, and individuals before being finalized. This document is being distributed for a 45-day public review and comment period. Readers are invited to submit written comments on the document. Comments are most helpful when they suggest specific alternatives or measures that would better mitigate significant environmental effects. Written comments should be submitted to:

Rebecca Bustos, Principal Planner
City of Santa Clara
Community Development Department, Planning Division
1500 Warburton Avenue
Santa Clara, CA 95050
rbustos@santaclaraca.gov
Direct: 408.615.2464

1.4 Report Organization

This Draft EIR is organized into the following sections:

- *Executive Summary*: Provides a summary of the Project and the impacts that would result from its implementation and describes the mitigation measures recommended to reduce, eliminate, or avoid significant impacts. The Executive Summary also discusses alternatives to the Project.
- *Chapter 1—Introduction*: Discusses the overall purpose of the Draft EIR, provides a summary of the Project and CEQA processes, and summarizes the organization of the Draft EIR.
- *Chapter 2—Project Description*: Provides a description of the Project site, site development, Project objectives, the required approvals process, and Project characteristics.
- *Chapter 3—Environmental Impact Analysis*: Describes the existing conditions/setting, analyzes the environmental impacts, provides mitigation measures (if applicable) for each environmental resource area, and analyzes cumulative impacts.
- *Chapter 4—Other CEQA Considerations*: Provides additional, specifically required analyses of the Project's effects, significant irreversible changes, induced growth, urban decay, and energy conservation.
- *Chapter 5—Alternatives*: Evaluates seven alternatives to the Project in addition to the No Project Alternative and explains why various other alternatives that were considered were not carried forward for detailed evaluation.
- *Chapter 6—Preparers:* Lists the Draft EIR preparers.

Chapter 2
Project Description

Kylli, Inc. (Project Sponsor), the U.S. real estate subsidiary of Genzon Investment Group, proposes a mixed-use development on a 48.6-acre site (Project site) in Santa Clara, California. If approved by the City of Santa Clara (City) City Council and applicable regulatory agencies, the Mission Point Project (Project) would demolish existing office buildings and establish a new mixed-use neighborhood. The existing City of Santa Clara 2010–2035 General Plan (General Plan) designation of High-Intensity Office/Research-and-Development (R&D) would be changed to Urban Center Mixed Use, and the existing zoning would be changed from Light Industrial (ML) to Planned Development (PD), thereby providing a transit-oriented "live, work, socialize, and recreate" environment. The information contained in this chapter is intended to provide a general description of the Project's technical, economic, and environmental characteristics, per California Environmental Quality Act (CEQA) Guidelines Section 15124(c).

The Project would include up to 4,913,000 gross square feet (gsf) of new development, including approximately 1.8 million gsf of residential uses (up to 1,800 units), approximately 3 million gsf of office/research-and-development (R&D)[1] space, approximately 100,000 gsf of neighborhood retail uses, and approximately 10,000 gsf of childcare facilities, along with 3,000 gsf of community space. An approximately 18,000 gsf electrical substation would also be constructed to support the Project.[2] Parking would be provided in a mix of subsurface and aboveground parking facilities. In addition, the Project would include approximately 16 acres of publicly accessible open space at grade level;[3] approximately 10 acres of private open space for residential and office uses;[4] new bicycle, pedestrian, and vehicular circulation routes; and upgraded and expanded infrastructure.

2.1 Project Location and Setting

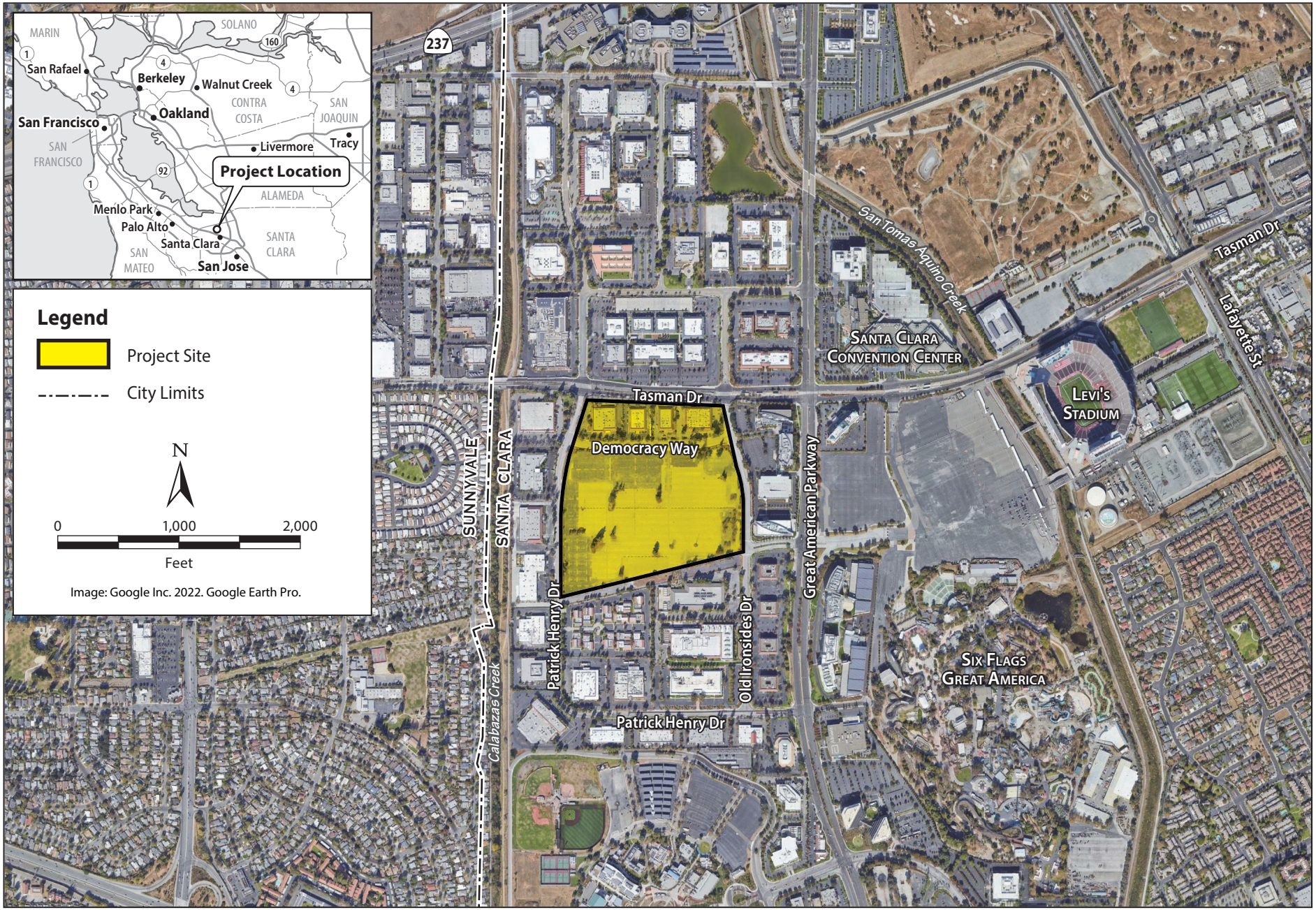
The Project site is located on nine parcels (assessor's parcel numbers [APNs]) 104-04-150, 104-04-142, 104-04-143, 104-04-151, 104-04-112, 104-04-113, 104-04-065, 104-04-111, 104-04-064), totaling approximately 46 acres, as well as Democracy Way, a privately owned street subject to an existing public right-of-way (ROW) easement that covers approximately 2.6 acres, for a combined total Project area of 48.6 acres. The Project site is generally located along the Great America Parkway corridor in Santa Clara. It is bounded by Tasman Drive to the north, Old Ironsides Drive to the east, the ROW associated with the Hetch Hetchy aqueduct to the south, and Patrick Henry Drive to the west (see Figure 2-1).

1 Although the end uses are not yet determined, the Project may include lab/R&D uses; for CEQA purposes, up to 30 percent laboratory use has been assumed. All future references to "office" include permitted lab/R&D uses.

2 Details regarding the substation are subject to change; Silicon Valley Power will coordinate the precise size, dimensions, and layout during the design phase of the substation.

3 This area includes approximately 10 acres of parkland as well as bicycle and pedestrian circulation elements, retail terraces, landscaped gardens, planters, plazas, bio-retention areas, and a playground.

4 Note that because the private open space may be provided at the podium level, not all of the acreages will add up. Additional private open space will be provided on terraces, balconies, and rooftops. These spaces are not included as part of the calculations.



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Figure 2-1
Project Location
Mission Point Project

The Project site is currently developed with four light industrial buildings totaling approximately 142,050 gsf on the northern portion of the site that were constructed in the late 1970s and a paved surface parking lot south of Democracy Way with approximately 5,081 parking spaces. The Project Sponsor currently occupies one of the buildings on the Project site; the other buildings are vacant. Table 2-1 lists the existing areas and buildings at the Project site. The current primary use of the Project site is temporary event parking for Levi's Stadium, which uses 3,300 parking spaces.[5] The rest of the parking spaces are used by Amazon as driver training grounds. The Project site is designated in the General Plan as High-Intensity Office/R&D.[6] The City's zoning code currently designates the Project site as ML.

Table 2-1. Existing Project Site Components

Assessor's Parcel Number	Approximate Parcel Area (acres)	Approximate Existing Building Area (gsf)
104-04-150	2.99	46,150
104-04-142	1.99	28,000
104-04-143	1.57	23,950
104-04-151	2.81	43,950
104-04-112	6.33	—
104-04-113	7.15	—
104-04-065	7.16	—
104-04-111	8.74	—
104-04-064	7.27	—
N/A[a]	2.60	
Total	*48.6*	*142,050*

Source: City of Santa Clara. 2018. *Proposed Development Project Page – Kylli, Parcel Map/Information.* Available: http://santaclaraca.gov/home/showdocument?id=56232. Accessed: April 26, 2018.

Note:

[a] Subject to existing Democracy Way public ROW easement.

Regional access routes to the Project site include State Route (SR) 237 to the north and US 101, approximately 1 mile to the south. The Santa Clara Valley Transportation Authority (VTA) operates a light rail service with numerous nearby stops along Tasman Drive north of the Project site, including Old Ironsides Station (less than 500 feet away from the Project site), Reamwood Station (less than 1,000 feet away from the Project site), and Great America Station (approximately 0.3 mile away from the Project site). Amtrak's Capital Corridor and Altamont Corridor Express operate along the Union Pacific Railroad ROW and provide service to the Project area from Great America Station, located at Lafayette Street and Tasman Drive (approximately 1 mile from the Project site). Bicycle and pedestrian access is provided by the off-road Calabazas Creek Trail, which connects to Tasman Drive (approximately 0.1 mile west of the Project site), a Class II bicycle lane along Great America Parkway (approximately 0.1 mile east of the Project site), and San Tomas Aquino Creek Trail (approximately 0.4 mile east of the Project site).

[5] To prepare the site for parking use, in 2011 the previous owner demolished six single-story office/industrial buildings that were located on the Project site.

[6] City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan.* Figure 5.2-1, page 93. Available: https://www.santaclaraca.gov/ home/showpublisheddocument/56139/636619791319700000. Accessed: April 18, 2022.

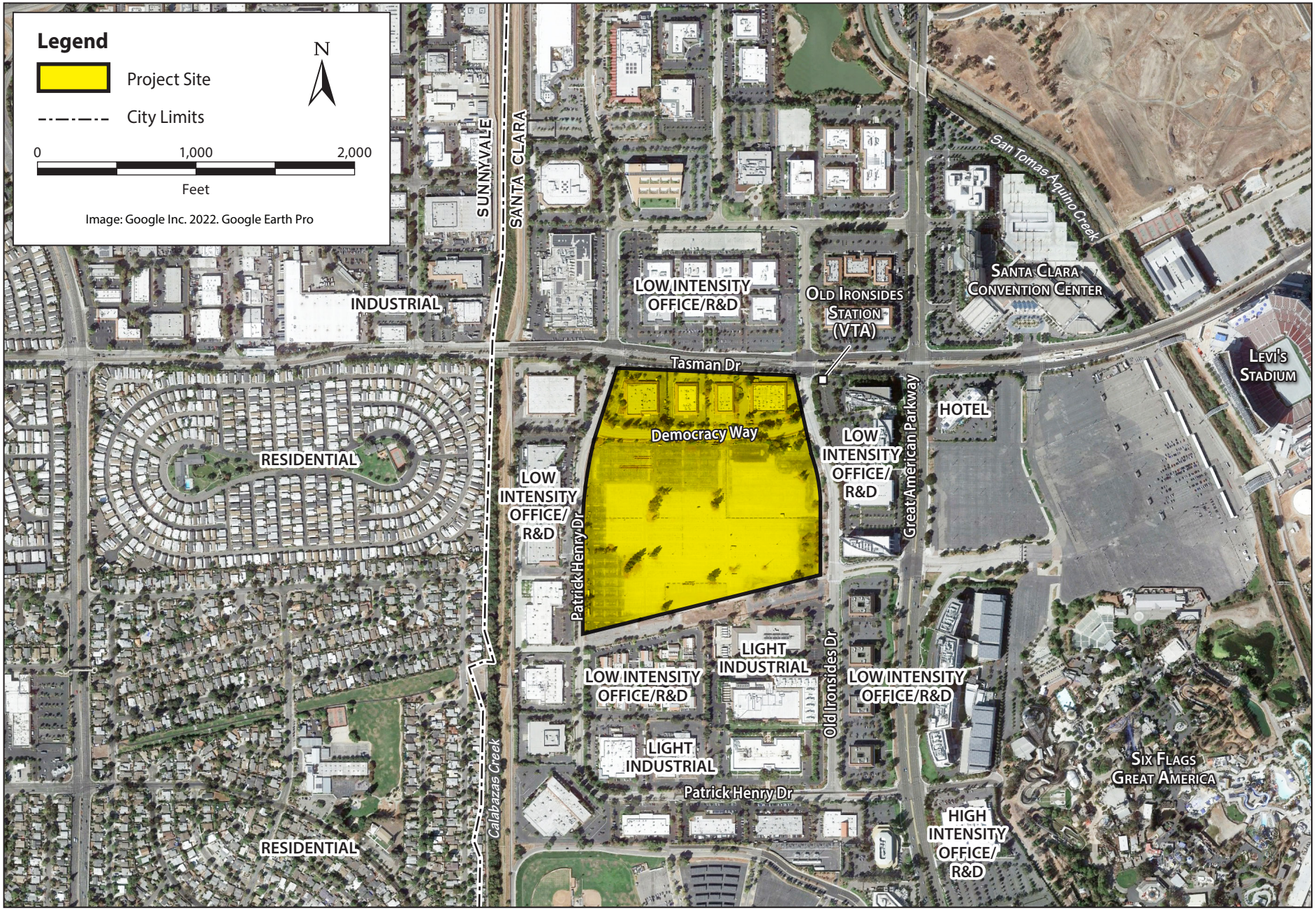
Existing uses adjacent to the Project site include mostly low-intensity office/R&D uses within areas zoned ML and PD. Businesses within the immediate vicinity of the Project site include Citrix, Silicon Valley Bank, Fabrinet West, PetaIO, Banpil Photonics, and National Instruments, among other companies housed in office/industrial buildings that range from small single-story office buildings to mid-rise, multi-story buildings. Immediately south of the Project site, existing low-intensity office/R&D and light industrial uses are zoned PD. This area, referred to as the Patrick Henry Drive Specific Plan area, is bounded by the Hetch Hetchy ROW to the north, Great America Parkway to the east, Calabazas Creek Trail to the west, and Mission College Boulevard to the south. The Patrick Henry Drive Specific Plan was approved to convert industrial uses to high-density residential and/or office uses.[7] San Francisco Bay is approximately 1 mile north of the Project site. California's Great America amusement park and Levi's Stadium are approximately 0.3 and 0.45 mile east of the Project site, respectively. Figure 2-2 depicts the existing uses adjacent to the Project site.

2.2 Project Objectives

The City and Project Sponsor have identified the following Project objectives, which are relevant to the physical impacts considered in this document:

- Support the City's North Santa Clara planning effort by converting an underutilized single-use, 48.6-acre site to a vibrant, pedestrian-oriented high-intensity and very high-density mixed-use development that is sustainable and inclusive by design, with a range of building types, enriching connections between people, places, and open space.
- Broaden the housing supply and business opportunities in North Santa Clara through development of a human-centric, interconnected urban neighborhood that provides a diverse and complementary mix of residential, commercial, retail and community.
- Promote an active pedestrian realm with continuous access to at-grade, podium-level, and rooftop public and private open space with flexible programming.
- Promote and support local, regional, and State of California (State) mobility and greenhouse gas reduction objectives to reduce vehicle miles traveled and infrastructure costs through infill and mixed-use development in an existing urbanized and transit-rich area.
- Facilitate ridership of multimodal transportation and minimize vehicular infrastructure while providing efficient access to sufficient and flexible parking that meets current and future demand.
- Provide community benefits, including public open space, child care, and community space.
- Provide utility infrastructure to adequately support the Project.
- Meet the City's Affordable Housing Ordinance and Inclusionary Zoning requirements.
- Develop a model for urban growth that maximizes the Project site's economic, cultural, and ecological potential; generates tax revenue for the City; creates permanent and construction-related jobs; and contributes to achievement of the City's vehicle-miles-traveled goals.

[7] City of Santa Clara. 2022. *Patrick Henry Drive Specific Plan.* Available: https://www.santaclaraca.gov/home/showpublisheddocument/72222/637921162111370000. Accessed: September 6, 2022.



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Figure 2-2
Existing Land Uses
Mission Point Project

The Project Sponsor has identified the following additional objectives:

- Redevelop the 48.6-acre site with up to 3 million gsf of office/R&D space, 100,000 gsf of neighborhood retail space, and 1,800 multifamily residences by consolidating, on a smaller portion of the property, the square footage for office/R&D previously assumed in the City's General Plan to accommodate new multifamily housing, including affordable housing, public and private parks and open space, neighborhood serving services and retail, a substation, and community amenity space.
- Allow flexibility and ensure an orderly build-out of the Project, based on projected market demand and other factors, such as local and regional growth, Project financing, and development of final construction plans to ensure the Project remains economically feasible throughout a multi-year development process.
- Create a vibrant, walkable new neighborhood with a diverse and complementary mix of uses that is sustainable by design and supports the City's vehicle miles traveled goals, while realizing a market return on the property reflecting the cost of development.
- Privatize existing Democracy Way while preserving appropriate public and emergency vehicle access.

2.3 Project Characteristics

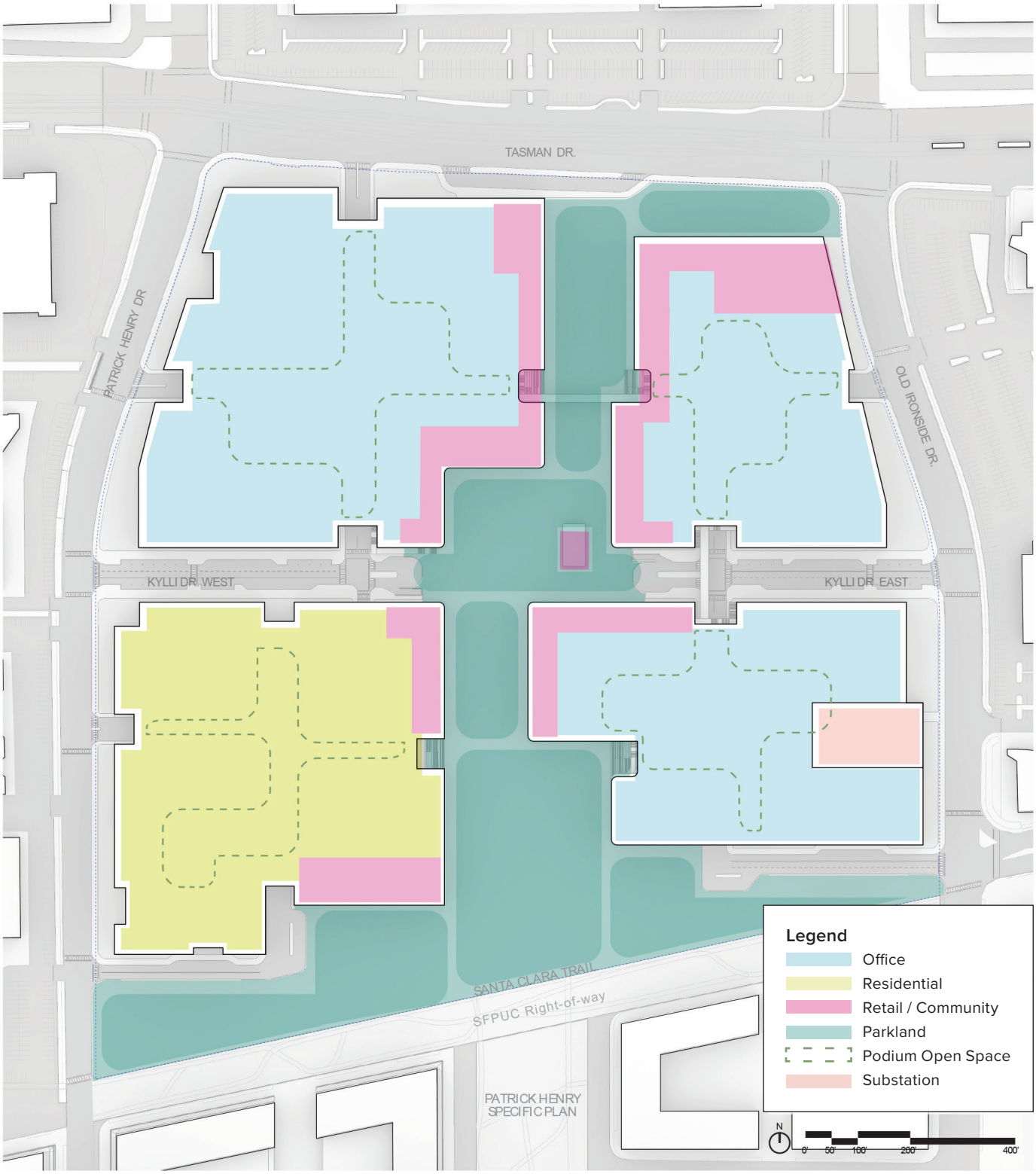
The Project would involve the demolition of the existing buildings and onsite features at the Project site, as described above, and the construction of a new mixed-use development. As shown in Figure 2-3, for planning and analysis purposes, the Project site has been divided into four areas with the following approximate acreages: Area A (13.3 acres), Area B (8.9 acres), Area C (12.7 acres), and Area D (13.7 acres).[8] Overall, the Project would include up to 4,913,000 gsf for office buildings, retail uses, residential uses, community space, and a childcare facility; open spaces; new circulation routes; a substation; and upgraded and expanded infrastructure. The podium buildings for office uses would have a variety of heights of up to 108 feet (up to eight stories), while the podium buildings for residential uses would have a height of approximately 85 feet (up to seven stories). Towers for office uses are also proposed (up to 153 feet, or 11 stories). Towers for residential uses would have a height of up to 202 feet (up to 20 stories). Table 2-2 summarizes the development potential by land use and residential units at the Project site.

Table 2-2. Proposed Development at the Project Site

Land Use	Development Potential
Residential	Up to 1,800,000 gsf (1,800 units)
Office	Up to 3,000,000 gsf
Retail	Up to 100,000 gsf
Childcare	Up to 10,000 gsf
Community Amenity	Up to 3,000 gsf
Total	*Up to 4,913,000 gsf*
Substation	Up to 18,000 gsf

Source: Kylli, Inc., 2023.

[8] Acreages have been provided for the purpose of analysis under CEQA. The actual acreages are subject to change; however, the maximum development potential would not exceed the total development area of 4,913,000 gsf.



Source: Kylli, 2023.

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Figure 2-3
Conceptual Site Plan
Mission Point Project

Proposed Site Plan[9]

The Project site would be separated by a system of access aisles and open spaces. The total building area,[10] 4,913,000 gsf, would have a minimum floor area ratio (FAR) of 1.5. The primary uses would be multifamily residences and offices, which would account for approximately 37 percent and 61 percent of the total proposed building area, respectively. Approximately 16 acres of publicly accessible open space would be provided, which includes approximately 10 acres of dedicated parkland (i.e., owned and maintained by the City) and 6 acres of other publicly accessible open space. In addition, approximately 10 acres of private open space would be provided throughout the Project site for residential and office uses.[11]

As detailed in Table 2-3, areas would vary with respect to size, proposed development type, building area, FAR, and maximum building height. It is anticipated that they will be revised as the Project is developed over time in response to the market.

Proposed multifamily residences could include a mix of mid- and high-rise buildings and a variety of dwelling sizes (Area D). There would be a broad mix of unit sizes and bedroom counts, ranging from studios to two-bedrooms units, with the flexibility for three-bedroom units if there is market demand. A conceptual mix could be approximately 20 percent studios/junior one-bedroom units, 50 percent one-bedroom units, and 30 percent two-bedroom units.[12] At least 15 percent of the homes would be affordable. Office uses could include professional offices, R&D uses (offices and laboratory space),[13] and medical offices. Typical R&D uses may include, but are not limited to, computer software and hardware firms, electronic research firms, biotechnical firms, and pharmaceutical research laboratories. Retail uses could include neighborhood-serving retail uses, such as a range of restaurant types (sit-down, high-turnover, fast-food [non-drive through], and café types), personal services (non-medical services such as nail salons, hair salons, and banks), pharmacies, entertainment venues, a grocer, and a childcare facility. The Project's mix of retail uses and restaurants would be designed to create a vibrant urban neighborhood that would support the Project objectives of walkability and bikeability, while bringing activity to the new open spaces within the Project site. The retail uses, shown in Figure 2-4, would be targeted at the onsite population of workers and residents but would also encourage people to visit the Project site. There would also be a childcare facility within the Project site (Area D) and a community space (Area A).

All areas would include publicly accessible and/or private open space; the largest amount of public open space would be provided toward the southern portion of the Project site. An electrical distribution substation, to be owned and operated by Silicon Valley Power (SVP), would be located in Area C. As discussed in more detail below, the preferred substation design has been analyzed. Underground parking would be provided, as well as aboveground parking, with a total of approximately 9,400 parking spaces; parking structures/underground parking would have an area of approximately 4,018,000 square feet. Pedestrian bridges could be constructed to connect buildings within the areas as well as potential underground tunnels. Approximately 21 emergency generators are anticipated to be installed with Project implementation; the proposed generators would not all be tested simultaneously.

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9 Area C includes a separate parcel for the proposed substation. Unless otherwise stated, all information from this section is from Kylli, Inc., 2023.

10 Building calculations do not include the proposed parking structures or the substation.

11 Note that because the private open space may be provided at the podium level, not all of the acreages will add up.

12 This conceptual mix is provided for CEQA planning and analysis purposes only. The actual unit sizes and mix will be established by the Project's PD zoning and/or architectural review.

13 As noted in Footnote 1, up to 30 percent of the office space is analyzed as R&D/lab uses for CEQA purposes.

Table 2-3. Proposed Development by Development Area Program[a]

Area	Size (acres)	Height[b]	Accessible Grade-Level Open Space/Private Podium-Level Open Space[c]	Development Type	Building Area (gsf)[d]
A	13.3	123 feet	Approximately 3.2/2.5 acres	Office	1,176,000
				Retail	30,000
				Community	3,000
				Area A Total	*1,209,000*
B	8.9	153 feet	Approximately 2.9/1.4 acres	Office	1,034,000
				Retail	43,000
				Area B Total	*1,077,000*
C	12.7	132 feet	Approximately 5.2/2.4 acres	Office	790,000
				Retail	19,000
				Substation	18,000[e]
				Area C Total	*809,000*
D	13.7	202 feet	Approximately 4.8/3.9 acres	Residential	1,800,000
				Retail	8,000
				Childcare	10,000
				Area D Total	*1,818,000*
Total	*48.6 acres*		*Approximately 16/10 acres*		*4,913,000*

Source: Kylli Inc., 2023.

Notes:

a. This table is provided for CEQA analysis purposes only. Actual maximum development standards would be established in the General Plan amendment and PD zoning.

b. Height values represent anticipated maximums. Approximate heights are based on the City's [proposed] definition of height measurement in Santa Clara City Code Section 18.30.040, which states that "the height of a structure shall be measured as the vertical distance from the elevation of the finished grade to the highest point of the structure. This would be the coping of a flat roof, or the deck line of a mansard roof, or to the highest gable of a pitched or hip roof." All building heights (including antennas, chimneys, elevators, radio towers, mechanical appurtenances, parapets, and screens) are subject to Federal Aviation Administration height restrictions.

c. Note that City parkland dedication is included within these calculations, out of which approximately 10 acres would be part of the accessible grade-level open space designation and approximately 2.5 acres would be part of the private podium-level open space located exclusively on the residential podium in Area D.

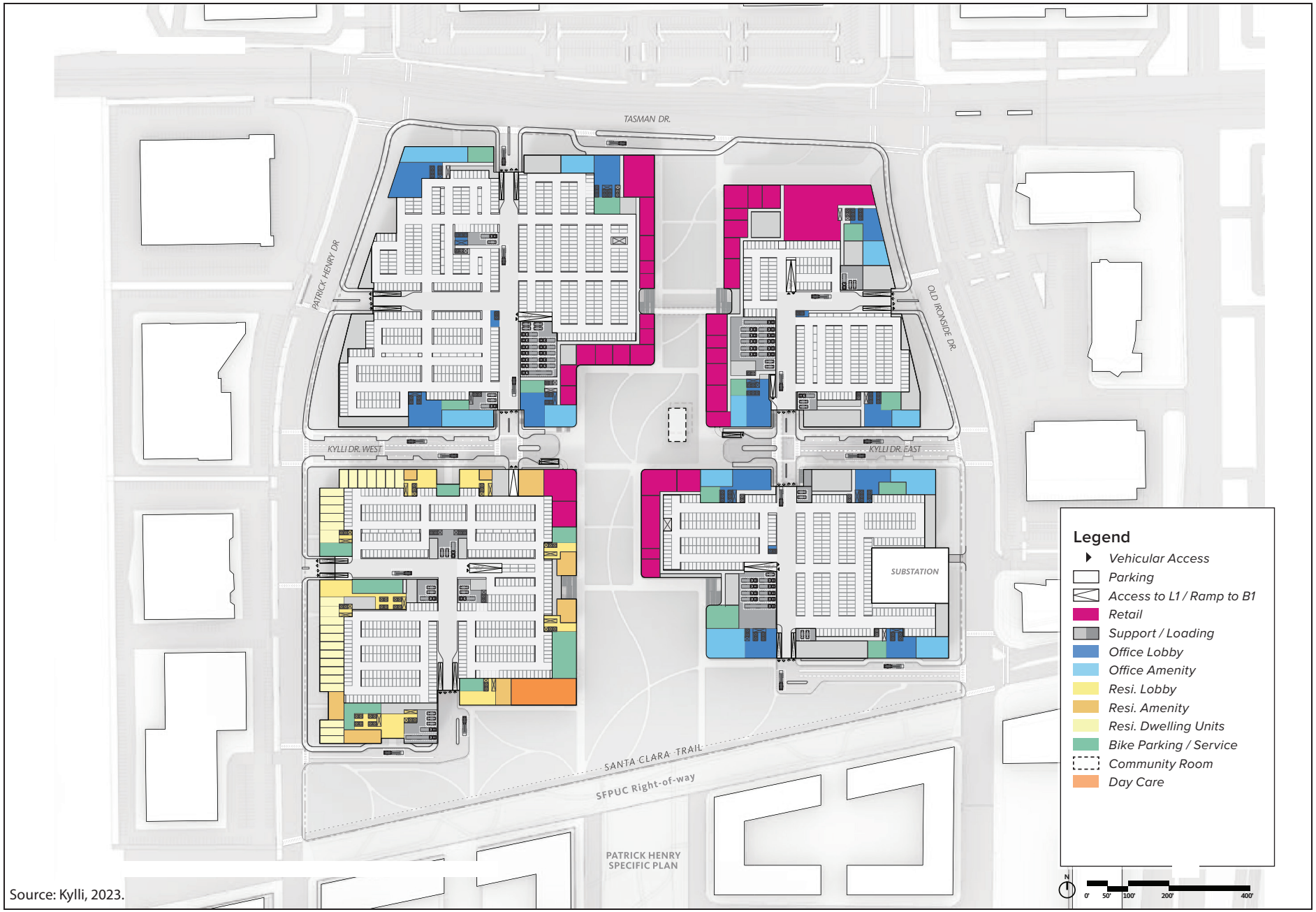
d. Note that the total "building area" shows the maximum build-out that could occur.

e. The electrical substation square footage is not included in the Area C total because it is not a building area that would be occupied.

The Project would include a number of community benefits, including the following:

1. Up to 3,000 gsf of community space
2. Bike lanes along project frontages on Tasman Drive, Old Ironsides Drive, and Patrick Henry Drive
3. Public open space, including a multi-use trail on the southern project border
4. Childcare facility
5. Electrical substation
6. Affordable housing
7. Neighborhood-serving retail

Specific proposed uses and the approximate acreages for each of the areas are listed above in Table 2-3 and below in the *Open Space* subsection.



Source: Kylli, 2023.

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Figure 2-4
Conceptual Ground-Floor Plan
Mission Point Project

Site Access, Circulation, and Parking

Vehicular Access and Circulation

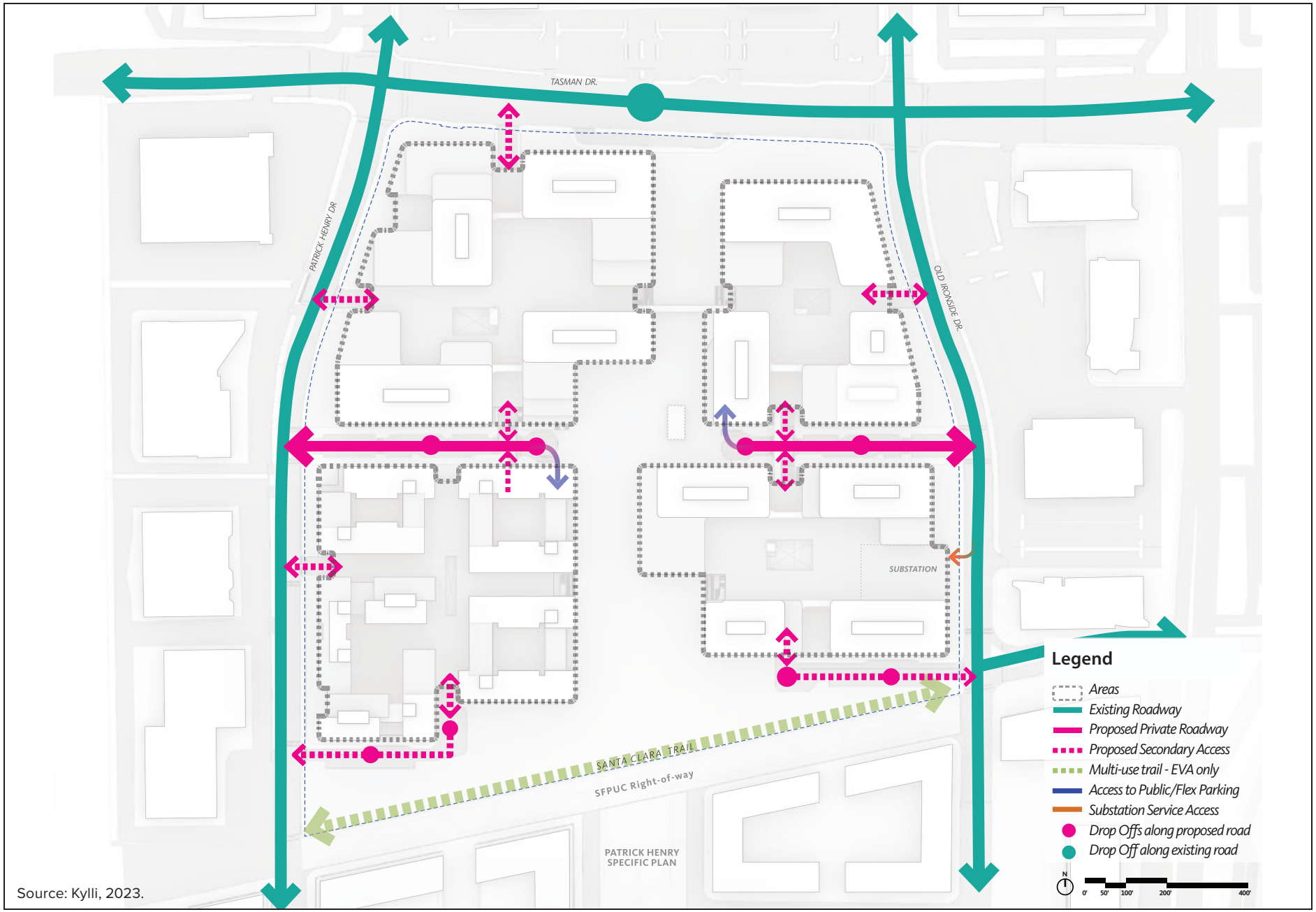
As noted above, regional access to the Project site is provided by US 101 and SR 237 through interchanges at Great America Parkway/Bowers Avenue and Lawrence Expressway. Local access to the Project site is provided from Tasman Drive via Patrick Henry Drive, Old Ironsides Drive, Old Glory Lane, and Democracy Way. The Project generally would maintain these existing access points, except for Democracy Way.

Figure 2-5 depicts proposed vehicular access and circulation on the Project site. The Project site would include several access points from existing roadways, realigned roadways, as well as a new network of sidewalks and bike lanes. Loading and delivery areas would be provided primarily at street level. Access points would be located mostly away from the central areas, which would be more focused on pedestrian movement.

Democracy Way, an existing public street easement, would be vacated. The street would be privatized and access would be relocated south of the existing alignment, providing access to the Project site in an east–west direction. In the new alignment, the new access would not be a through vehicular street and would not connect Patrick Henry Drive and Old Ironsides Drive. The new access is referred to in the Project plans as Kylli Drive East and Kylli Drive West, with a proposed building-to-building width of approximately 100 feet (approximately 54-foot curb-to-curb width). Vehicular travel between Areas A and D as well as Areas B and C from Kylli Drive would be provided by ramps to the below-grade parking garage. Drivers could travel to different areas of the Project site using the interconnected, below-grade parking garage to arrive at the area where they wish to park or using the different parking structure access points around the Project boundaries to exit at grade level. Kylli Drive East and Kylli Drive West would be private streets but subject to public and emergency access easements to continue to allow public access by vehicles, bicyclists, and pedestrians as well as access to the Project's private utilities. Existing utilities in existing Democracy Way that serve other properties would be relocated to the adjacent public ROWs, including Tasman Drive and Patrick Henry Drive. In addition, two new access points would also be constructed along the south sides of Areas C and D. Similar to Kylli Drive East and Kylli Drive West, these southern drive aisles would provide access to parking and would not be through streets connecting Patrick Henry Drive and Old Ironsides Drive.

The Project would provide loading areas, as appropriate, on an area-by-area basis. Delivery and servicing activities are expected to occur at all hours. Loading areas would be provided per the City's off-street loading minimum requirements, which, for purposes of this analysis, are estimated to require 34 loading spaces throughout the Project site, dispersed in Areas A, B, C, and D.[14] These would include van loading spaces, box-truck loading spaces, and tractor loading spaces.

[14] This total is based on the requirements provided in Santa Clara City Code Section 18.38.070 of the proposed City Zoning Code, which requires one space per 20,000 square feet and one space for each additional 100,000 square feet of non-residential uses. The City of Santa Clara is in the process of updating the City Zoning Code. This reference may need to be updated after the conclusion of that process.



Source: Kylli, 2023.

Graphics ... 103980 (09-18-2023) JC

Figure 2-5
Conceptual Public Access and Circulation Plan
Mission Point Project

Approximately 12 drop-off areas are proposed throughout the Project site, both externally and within the Project site, including drop-off locations on Tasman Drive, Patrick Henry Drive, Old Ironsides Drive, Kylli Drive East and Kylli Drive West, and in the southern drive aisles.[15] Some of these drop-off areas would also serve as car-share/bus shuttle stops or car-share/van shuttle stops. Emergency vehicle access would be provided along access driveways and in the podiums on the grade level for staging and direct access to the fire service access elevators in each building. Additional access would be provided along the southern portion of the site via a 20-foot emergency access easement within the 30-foot multi-use trail, providing efficient east–west connectivity.

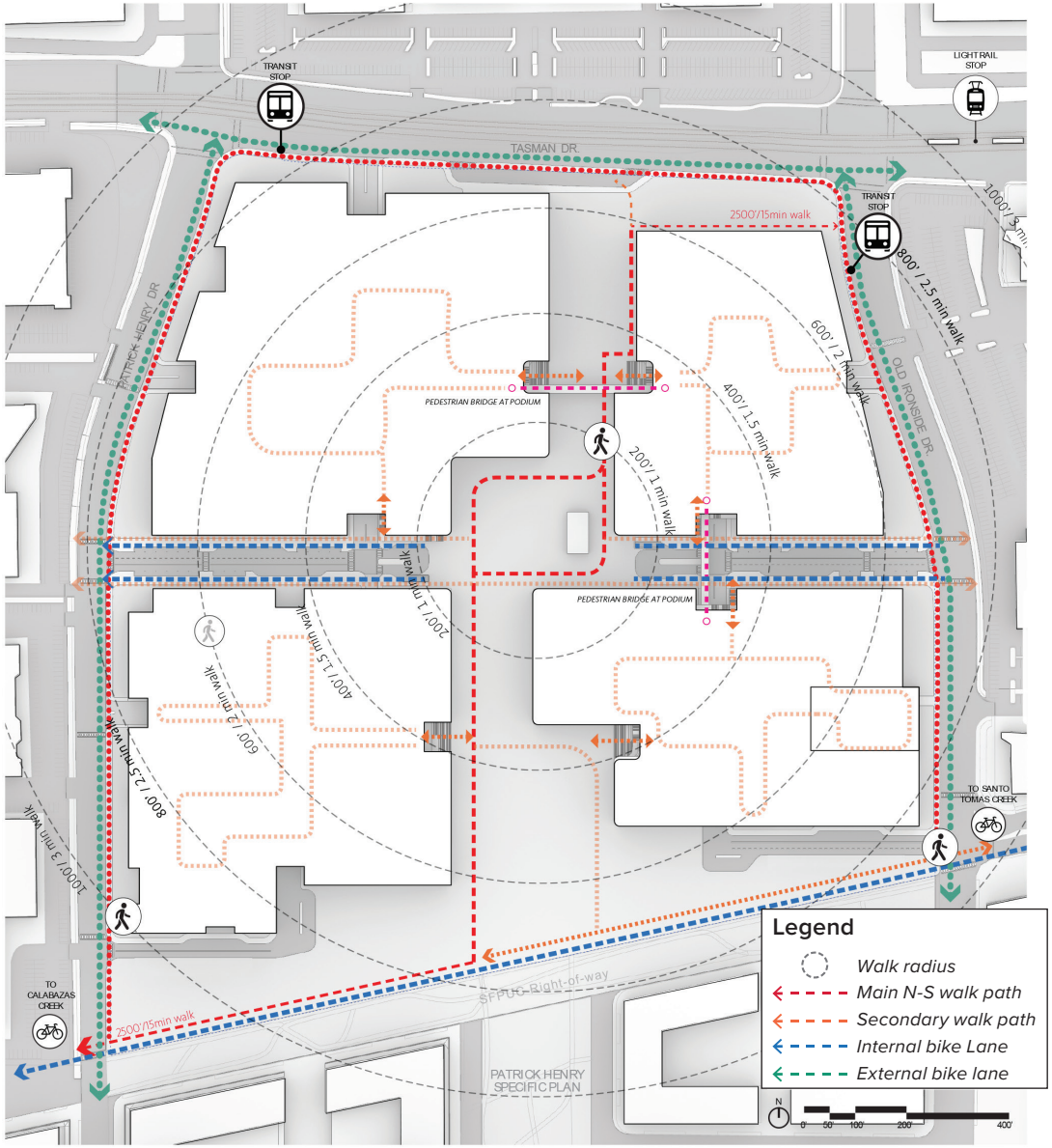
Lastly, the following additional onsite and offsite transportation improvements would be included as part of the Project:

- Signalize the Old Ironsides Drive and Kylli Drive East intersection,
- Add a second eastbound right-turn lane on Great America Parkway and Old Glory Lane,
- Signalize the Old Ironsides Drive and Kylli Driveway B intersection,
- Signalize the Patrick Henry Drive and Kylli Drive West intersection,
- Prohibit inbound and outbound left-turns at the Patrick Henry Drive and Kylli Project Driveway A intersection,
- Widen westbound approach to include one right-turn lane and one left-turn lane at the Patrick Henry Drive and Kylli Project Driveway D intersection.

Bicycle and Pedestrian Circulation

Bicycle and/or pedestrian access would be provided throughout the Project site, as shown in Figure 2-6. Existing bicycle paths are located along Calabazas Creek, located west of the Project site. In addition, bicycle lanes are provided along Great America Parkway/Bowers Avenue. As part of the Project, a bicycle lane and pedestrian walkway would be included along Kylli Drive East and Kylli Drive West, which would continue to bisect the Project site in an east–west direction. The bike path and pedestrian walkway would continue past the end of Kylli Drive East and Kylli Drive West to connect Patrick Henry Drive and Old Ironsides Drive for pedestrians and bicyclists. The new South Trail would also provide a bicycle and pedestrian connection between Patrick Henry Drive and Old Ironsides Drive. The South Trail would be approximately 30 feet wide, including a 20-foot emergency access easement. In addition, the North and South Promenades, which would bisect the Project site in a north–south direction and connect Tasman Drive and the South Trail, would provide pedestrian connectivity. Bicycle lanes would be provided around the exterior of the Project site along Tasman Drive, Patrick Henry Drive, and Old Ironsides Drive. Sidewalks are also proposed along all streets and between buildings. Access roads to Kylli Drive East and Kylli Drive West, including access to sidewalks, would increase in elevation from the public roadways up to the building level due to the grade change. All access points into the project site would occur at the building level. The grading on Kylli Drive East and Kylli Drive West would be implemented to accommodate the 1.5-to-2.5-foot elevation difference between the existing roadways (Patrick Henry Drive and Old Ironsides Drive) and the Central Green. With the proposed pedestrian connections, most of the Project site would be within a 15-minute walk from the Convention Center, Levi's Stadium, Old Ironsides Station (VTA), and Great America Station (VTA).

[15] The final number of drop-off areas is subject to change, based on final design of the Project.



Source: Kylli, 2023.

Graphics ... 103980 (09-15-2023) JC

Figure 2-6
Conceptual Bicycle and Pedestrian Circulation Plan
Mission Point Project

Parking

The Project would provide up to 9,400 parking spaces for the proposed onsite uses in underground parking structures and in above-grade podium parking. In addition, a small amount of on-street parking would be provided in various locations within the Project site. This would result in a parking ratio of up to 1.9 parking spaces per 1,000 gsf of building area. Table 2-4 summarizes the proposed parking by area.

Table 2-4. Proposed Parking Spaces[a]

Area	Percent of Total Parking Spaces	Parking Space Square Footage
Area A	35%	1,454,000
Area B	26%	990,000
Area C	19%	762,000
Area D	20%	812,000
Street/Surface	< 1%	—
Total	***100%***	***4,018,000***

Source: Kylli, 2023.
Note:
[a] These totals are approximate and provided for CEQA planning and analysis purposes.

The customary and generally applicable parking ratios set forth in the Santa Clara City Code would ordinarily prescribe approximately 11,900 parking spaces for a development with the Project's scale and land uses. However, the Project Sponsor would implement parking and Transportation Demand Management (TDM) programs and strategies that would take advantage of the Project site's transit-rich location, reduce parking demand, and encourage alternatives to single-occupancy vehicle travel. In addition, because of the mixed-use nature of the proposal (rather than a single use), a shared parking strategy would be applied to ensure that the Project would not result in an overabundance of parking that may not be needed in the future. The shared parking design would allow the various uses and tenants on the Project site to share parking areas rather than assign or reserve parking by use. During weekdays, parking demand is typically highest for office, retail, and childcare, while during evenings, parking demand is typically highest for residential uses. On weekends, parking demand is typically highest for retail and residential uses, with almost no demand for office or childcare facilities. To ensure the efficiency of shared parking, available parking technology would be utilized. For example, internal wayfinding would identify available spaces, and a system notification sign outside the parking areas would guide drivers to areas with open parking. Other techniques to ensure a successful system could include no outside gates, license plate recognition, mobile apps, lights that identify available spaces, various car lifts/stackers, and/or valets.

Bicycle parking provided onsite would adhere to the City's minimum requirements for Class I (long-term) and Class II (short-term) spaces and would be distributed throughout the Project site.[16] For purposes of this analysis, the estimated number of Class I and Class II spaces provided by the Project are shown in Table 2-5.

[16] The number of bicycle spaces is based on the minimum bicycle parking requirements provided in Table 3-4 of Santa Clara City Code Section 18.38.050 in the proposed City Zoning Code. The City of Santa Clara is in the process of updating the City Zoning Code. This reference may need to be updated after the conclusion of that process. Short-term spaces for office uses are subject to change, based on final design of the applicable building entrances.

Open Space, Landscaping, and Site Design

Landscaping and pervious surfaces would increase with implementation of the Project. The Project site is currently covered by 24.5 acres of impervious surfaces (pavement and roofs), 20.8 acres of pervious crushed aggregate, and 3.4 acres of pervious landscaping. The Project would include approximately 32.3 acres of impervious surfaces (pavement and roofs) and approximately 16.3 acres of pervious landscaping. Although the Project would increase the amount of impervious surface by approximately 7.8 acres compared to existing conditions, it would also increase the amount of pervious landscaping by approximately 12.9 acres compared to existing conditions.

Table 2-5. Potential Bicycle Parking[a]

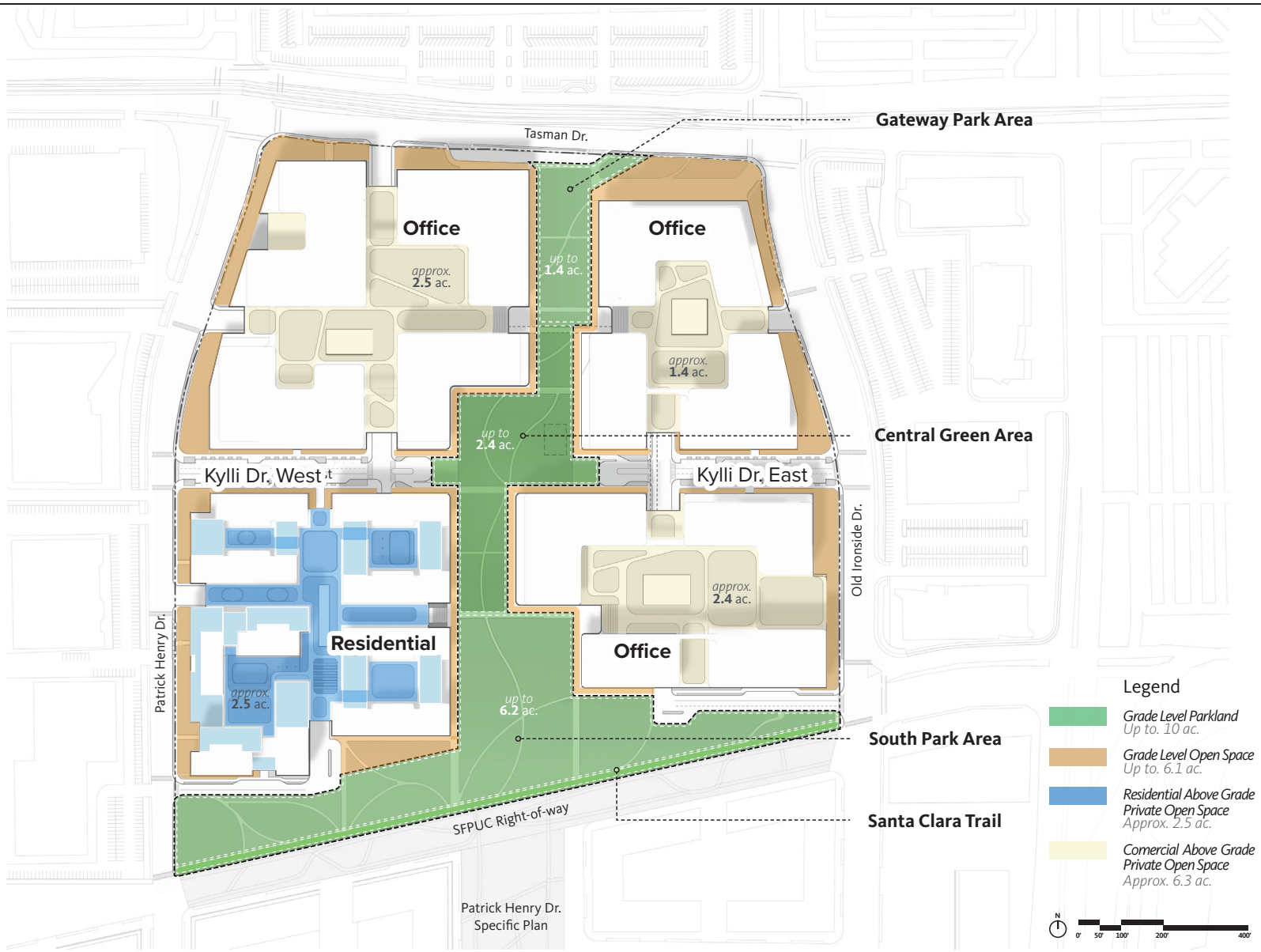
Land Use	Class I	Class II
Office	750	88
Residential	1,800	90
Retail/Restaurants	25	25
Day care	4	6
Community Amenity	2	1
Total	***2,581***	***210***

Source: Kylli 2023.
Note:
[a] These totals are approximate and provided for CEQA planning and analysis purposes.

Open Space

Publicly accessible open space at the Project site would total approximately 16 acres, as shown in Figure 2-7, providing a range of landscape types, including gathering spaces (such as small seating enclaves, terraces, amphitheaters), experiential spaces (for events such as concerts, public art, community gardening), recreational spaces (such as passive and active recreation, children's play features), and ecological spaces (including drainage areas, stormwater retention areas). Public open space, dedicated to the City as a public Neighborhood Park, would be provided within approximately 10 acres of land that would be distributed throughout the center of the Project site and along the southern perimeter, as follows:

- **Gateway Park Area**. The up to 1.4-acre Gateway Park Area of the Neighborhood Park, located in the northern portion of the Project site along a north–south axis, would be the primary open space connector from Tasman Drive. The area would support bicyclists and pedestrians.
- **Central Green Area**. The up to 2.4-acre Central Green Area of the Neighborhood Park would be located at the center of the Project site, providing access to all four areas. The Central Green could support a variety of uses, such as large- or small-scale events and a community room. Other features could include paths, trails, seat walls, and terraces for visitors.



*For illustrative purposes for CEQA analysis. park and open area amounts are subject to change in the final design

Source: Kylli, 2023.

Graphics ... 103980 (11-07-2023) JC

Figure 2-7
Conceptual Open Space Plan
Mission Point Project

- **South Park Area and Santa Clara Trail**. The South Park Area of the Neighborhood Park would cover up to 6.2 acres and be located south of the Central Green Area between Areas C and D. This green space is envisioned to be the most active zone of the park. It could include a children's play area, a dog park, and an activity lawn for family picnics, events, and informal recreation. This area is intended for recreational use by those at the residential development as well as neighboring users and visitors. The Santa Clara Trail would be located along the southern perimeter of the Project site and would facilitate further connections to the regional network of existing and proposed trails. The Santa Clara Trail would be a multi-use trail and available for both bicyclists and pedestrians. Approximately 50 short-term parking stalls are anticipated to be reserved for use by visitors (additional long-term public parking would be accommodated on grade or in underground structures within the development).

In addition, accessible open space for public access and private open space would be provided throughout the Project site.

- **Retail/Active Use Areas**. Retail/active-use areas (grade-level open space) would be provided along the retail frontages facing the Gateway Park and Central Green Areas and the exterior of the Project site, totaling up to 6.1 acres. These areas would be composed of different open space components to encourage public access, providing a retail edge with features such as spill-out seating from restaurants, benches, bike racks, public art, planters, bus shelters, special paving, and bulb-outs. Green buffers could also be provided as a physical separation to create a pedestrian environment. Connected tree canopies would provide shade, wind reduction, and biodiversity.
- **Other Landscaped Areas.** Additional open space would be provided to facilitate bicyclist and pedestrian circulation as well as drainage and stormwater bioretention.
- **Private Open Space.** Private podium-level open space would be available for use by residents and office workers**.**
    - **Residential Podium Central Green and Courtyards**. Area D would include approximately 2.5 acres of above grade private open space for residents, with recreational amenities such as pool areas, outdoor fitness facilities, other recreational spaces, lounges, and demonstration kitchens.
    - **Office Podium Amenities and Outdoor Areas.** The above-grade office podium space across Areas A, B, and C would include approximately 6.3 acres and accommodate a flexible range of activities and casual outdoor spaces for use by office tenants and visitors.

Landscaping

Currently, there are approximately 17 protected trees on the Project site. For purposes of this analysis, it is conservatively assumed that all existing trees at the Project site and along adjacent public ROWs would be removed. Under the City's General Plan, Policy 5.3.1-P10, and per City Code Chapter 12.35, removed protected trees must be replaced at a ratio of 2:1 for 24-inch box trees, 4:1 for 15-gallon box trees, and 1:1 for dead trees on the Project site or at offsite locations. Therefore, assuming all trees are removed, the Project Sponsor would be required to plant four 15-gallon trees to replace the existing dead trees and thirteen 24-inch box size trees or twenty-six 15-gallon size trees, or a combination of the two, to replace the existing living protected trees. In addition, exterior ground-floor landscaping for stormwater treatment would be planted on the exterior perimeter of the Project site, along Tasman Drive, Patrick Henry Drive, and Old Ironsides Drive.

Site Design

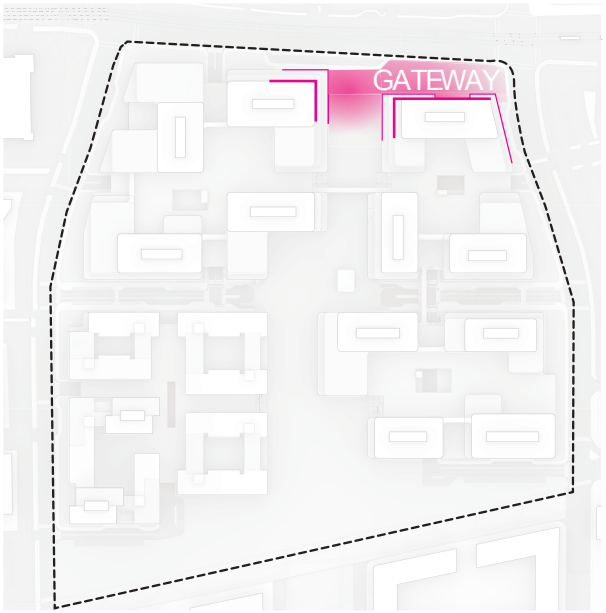
The architectural design of the Project is intended to reflect a set of core principles that would influence the overall character of the Project, including:

1. Interconnection: Visually and physically connecting people throughout the site;
2. Sustainability: Incorporating systems, materials, and spaces that foster a positive relationship with the environment;
3. Inclusivity: Providing welcoming and approachable buildings for all;
4. A Range of Building Types: Creating visual interest and diversity in the buildings through massing and material variety;
5. Harmony: Creating buildings that complement each other and the open spaces surrounding them; and
6. Access to open space: Connecting occupants to the outdoors with a range of functional spaces.

The massing and architecture would reflect the active and vibrant environment defined in the public areas and open spaces. Building designs would be further influenced by many factors, including:

1. Neighborhood Context: Respecting the surroundings and accentuating existing neighborhood features;
2. Massing Transitions: Stepping and articulating buildings to promote access to light, air, views, and access to the outdoors;
3. Massing Variation: Including a range of building sizes to avoid homogenous spaces;
4. Façade Rhythm: Including a rich palette of color, texture, and variety;
5. Detail: Including unique and special moments throughout the buildings and site; and
6. Outdoor Space: Providing occupiable balconies, terraces, and rooftops to activate visually and physically the entire building form.

Figures 2-8 through 2-11 show conceptual visualizations of the Project site, including the Gateway Park Area, the Central Green Area, the office uses, and the residential uses.

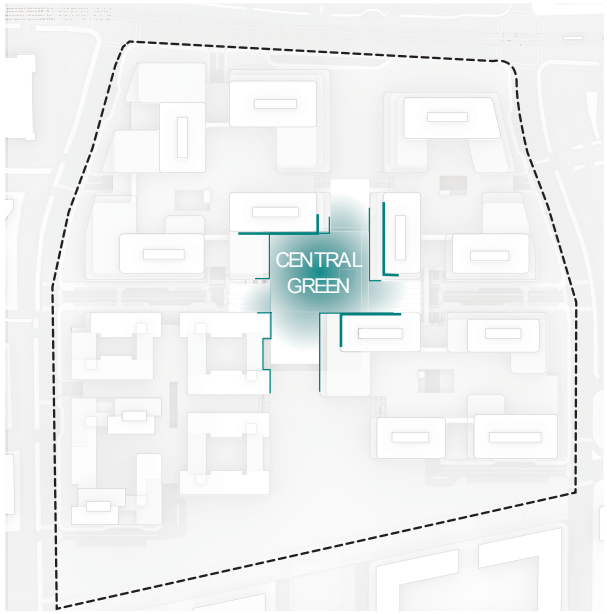




Source: Kylli, 2023.

Graphics ... 103980 (09-15-2023) JC

Figure 2-8
Conceptual Visualization – The Gateway Area
Mission Point Project



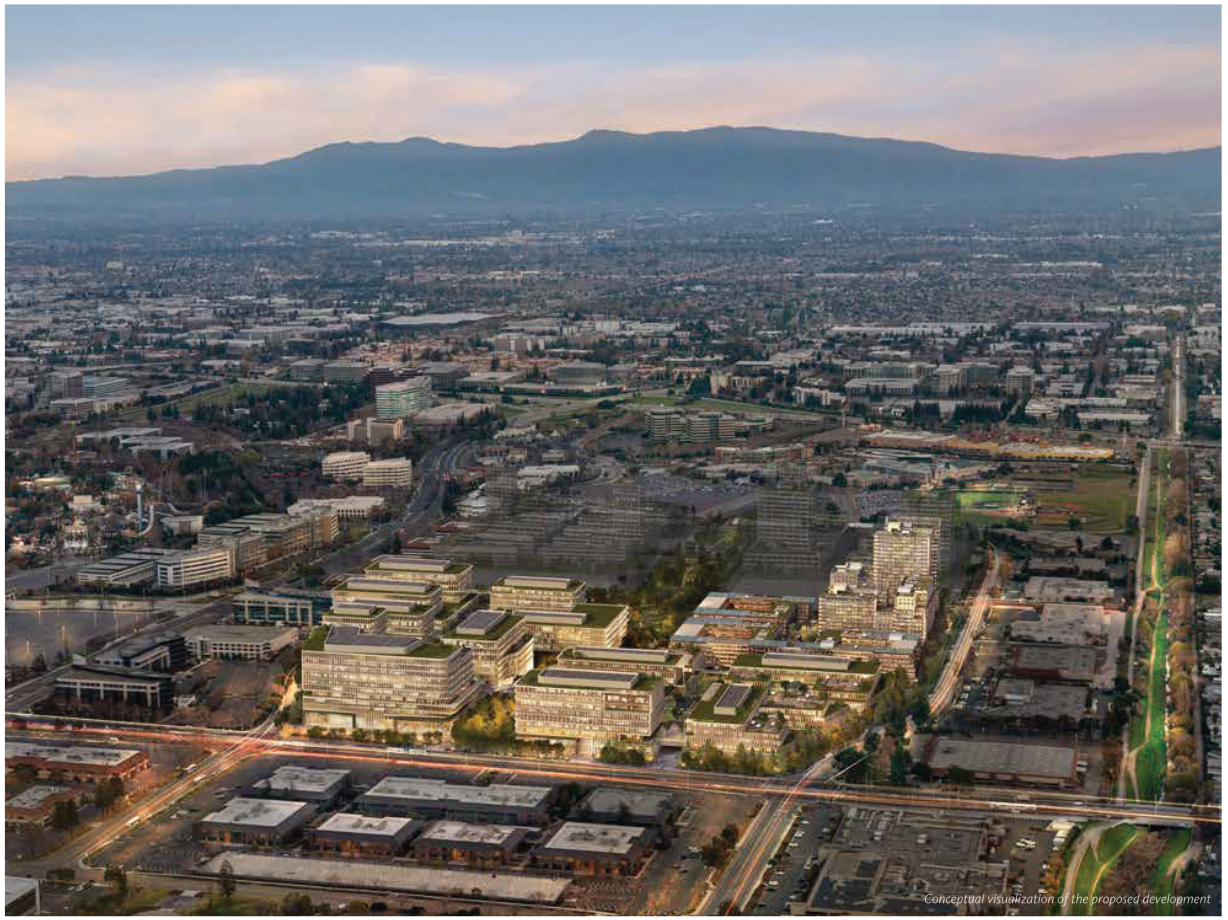


Source: Kylli, 2022.

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Figure 2-9
Conceptual Visualization – The Central Green Area
Mission Point Project

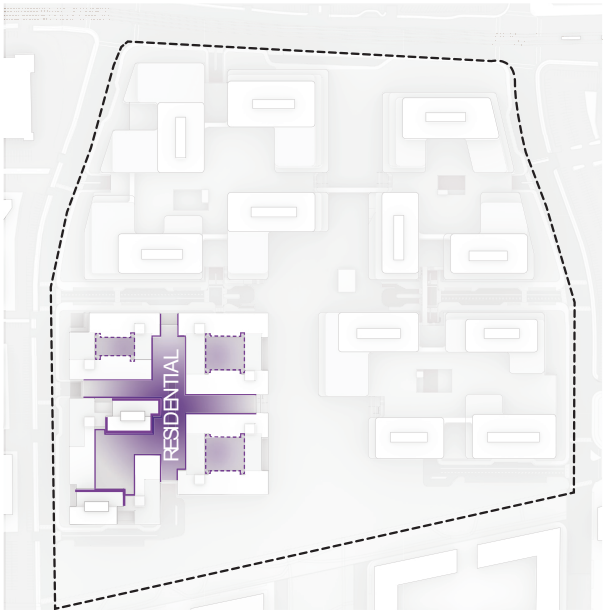




Source: Kylli, 2023.

Graphics ... 103980 (09-15-2023) JC

Figure 2-10
Conceptual Visualization – The Office Campus Area
Mission Point Project



Source: Kylli, 2023.



Graphics ... 103980 (09-15-2023) JC

Figure 2-11
Conceptual Visualization – The Residential Block Area
Mission Point Project

Activity and Employment

The current uses at the Project site employ 20 people onsite, including Project Sponsor employees and security and Stanford parking management. At Project build-out, office and other uses proposed onsite are expected to employ approximately 12,564 people. At full build-out, it is anticipated that the Project would employ approximately 12,000 office employees, 491 retail employees, 35 day-care facility employees, and 38 residential use employees. Thus, the total net number of Project employees would be 12,544.

Table 2-6 summarizes projected employee demand by use.[17]

Table 2-6. Proposed Onsite Residents and Employees

Land Use	Gross Square Footage/Units	Generation Rate	Projected Residents/ Employees[a]
Onsite Residents			
Residential	1,800,000/1,800 units	2.15 persons/household	3,870 residents
Total Residential	*1,800,000/1,800 units*	—	*3,870 residents*
Employees			
Neighborhood Retail	100,000 gsf	204 gsf/employee[b]	491 employees
Office[c]	3,000,000 gsf	250 gsf/employee	12,000 employees
Day care	10,000/120 students	286 gsf/employee	35 employees
Residential	1,800,000/1,800 units	47 units/employee	38 employees
Total Project Employees	—	—	*12,564 employees*
Existing Employees	—	—	20 employees
Total Net Project Employees	**—**	**—**	***12,544 employees***

Source: Keyser Marston Associates 2022.

Notes:

a. Rounded to the nearest tenth.

b. Retail includes medical office employees.

c. Permitted uses include, but are not limited to, office, R&D, R&D office type, and R&D/lab type. No end users have been identified, but up to 30% R&D/lab type has been assumed for CEQA purposes. This analysis is conservative because R&D has a lower occupancy rate than that accounted for in this calculation.

In addition to employees, the Project would have up to 1,800 residential units at the Project site. Because the proposed housing includes multifamily residential units, it is expected that the average household size would be lower than the City's average of 2.61 persons per household.[18] This is particularly pronounced in larger multifamily developments, such as the Project. Consequently, in order to provide an accurate estimate of the anticipated persons per household, the City commissioned a study from Keyser Marston Associates, which estimated that the persons-per-household average for multifamily units for this Project

[17] Keyser Marston Associates. 2022. *Memorandum: Projected Population and Employment, Mission Point Project.* September 9, 2022.

[18] State of California, Department of Finance. 2022. *E-5 Population and Housing Estimates for Cities, Counties, and the State—January 1, 2022*. May.

would be 2.15.[19] Therefore, the Project is expected to result in approximately 3,870 new permanent residents at the Project site.

Utilities

The Project site is in proximity to a significant amount of existing infrastructure. Systems include sanitary sewer, stormwater drainage, water (domestic and fire), recycled water, electric, gas, and communications systems within and adjacent to the site. Existing utilities are shown in Figure 2-12. Utility providers and infrastructure owners include the City of Santa Clara Department of Water & Sewer Utilities, South Bay Water Recycling (SBWR), SVP, Pacific Gas & Electric (PG&E), Comcast, and AT&T.

The Project would include the construction and reconstruction of substantial infrastructure to support the development. The utility infrastructure for the Project would be designed in accordance with applicable codes and current engineering practices. Furthermore, it would be constructed in accordance with an Infrastructure Master Plan prepared by the Project Sponsor and approved by the City as part of Project entitlement. Unless otherwise noted, all publicly owned infrastructure would be constructed within the public ROW or dedicated easements to provide access for the maintenance of infrastructure. The eventual layout within the Project site would ultimately determine which infrastructure components would be publicly or privately owned, operated, and maintained.

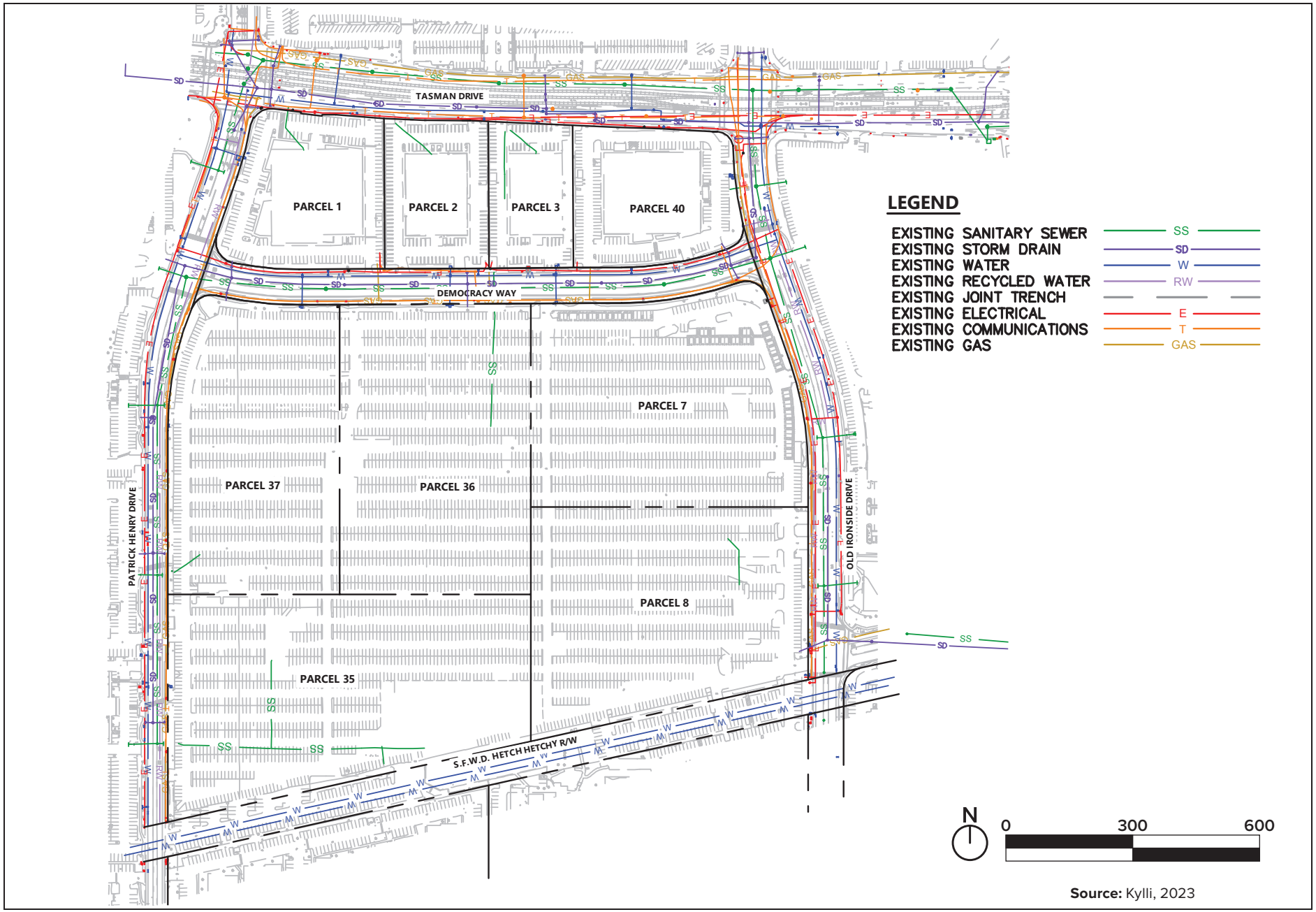
Water

The existing water system at the Project site includes 12-inch domestic water mains within roadway ROWs adjacent to the Project site and within Democracy Way (Figure 2-12). The potable water sources for the system that are available to the City include groundwater wells and imported water supplies, which are delivered by two wholesale water agencies, the Santa Clara Valley Water District and the SFPUC Hetch Hetchy system. The potable water supply is augmented with recycled water from the SBWR. Water purchased from SFPUC is used in conjunction with groundwater wells at other locations throughout the City to supply water to the Project site.

As shown in Figure 2-13, the Project would include vacating the public ROW easement at Democracy Way, thereby requiring the removal and relocation of the existing 12-inch water main within that street. New water mains would be constructed to deliver water to the Project site. A new private 12-inch water line is proposed within the private Kylli Drive East and Kylli Drive West. New domestic and fire-services backflow preventers would also be installed between the Project site and Patrick Henry Drive and Old Ironsides Drive.

Recycled water is supplied to the Project site from the SBWR program. There are 8-inch recycled water lines along the east and west boundaries of the Project site in Old Ironsides Drive and Patrick Henry Drive. Recycled water is currently used to irrigate the landscaped areas on the Project site and the surrounding properties. As discussed in more detail below, recycled water would be used for irrigation and nonpotable uses within commercial, childcare, and community amenity buildings. Each connection would require a separate meter as well as City and State approval from an independent recycled water permitting process.

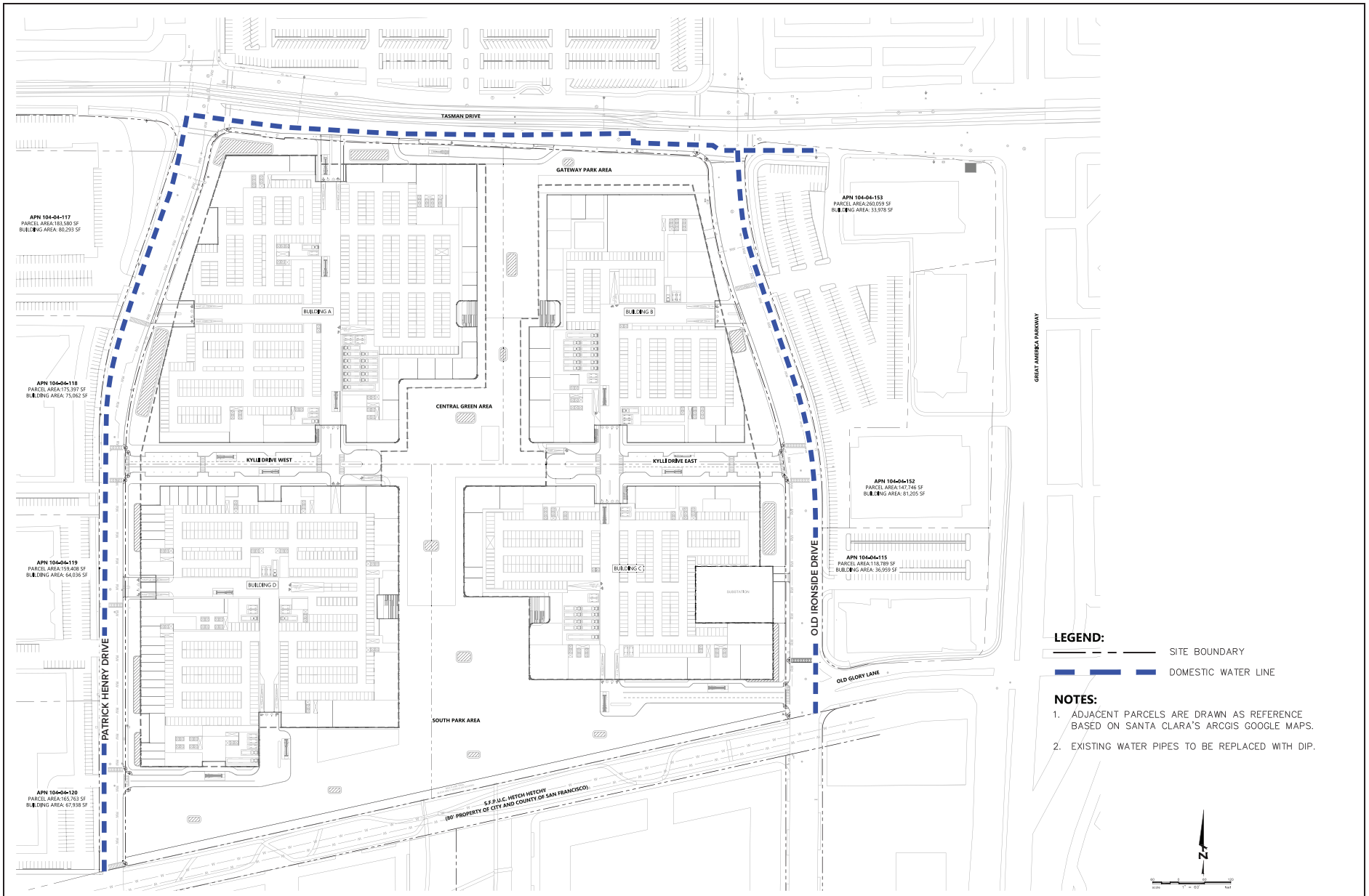
[19] Keyser Marston Associations. 2022. *Persons per Household by Unit Type, City of Santa Clara, CA.*



Source: Kylli, 2023

Graphics ... 103980 (09-18-2023) JC

Figure 2-12
Existing Utilities In Proximity to the Project Site
Mission Point Project



Source: Kylli, 2023

Graphics ... 103980 (09-18-2023) JC

Figure 2-13
Conceptual Project Water Facilities Plan
Mission Point Project

Wastewater

Wastewater from Santa Clara is treated at the San José/Santa Clara Regional Wastewater Facility (RWF), located near Alviso. The RWF serves eight tributary sewage collection agencies and is administered and operated by the City of San José Department of Environmental Services. The Project site is served by three 12-inch sanitary sewer lines located within roadway ROWs adjacent to the Project site (Figure 2-12). These lines connect to the Democracy Way line and the 12-inch Tasman Drive line, which connect to the Tasman Lift Station at the southwest corner of Tasman Drive and Great America Parkway.

With vacation of the Democracy Way public ROW easement, relocation of the sanitary sewer main would be required. The City of Santa Clara Water and Sewer Utilities Department analyzed various sewer options for the Project. Two options, identified as Option 2A and Option 3A in the sewer study and shown in Figures 2-14 and 2-15, were selected by the Water and Sewer Utilities Department for analysis as part of the Project.

Sewer Option 2A

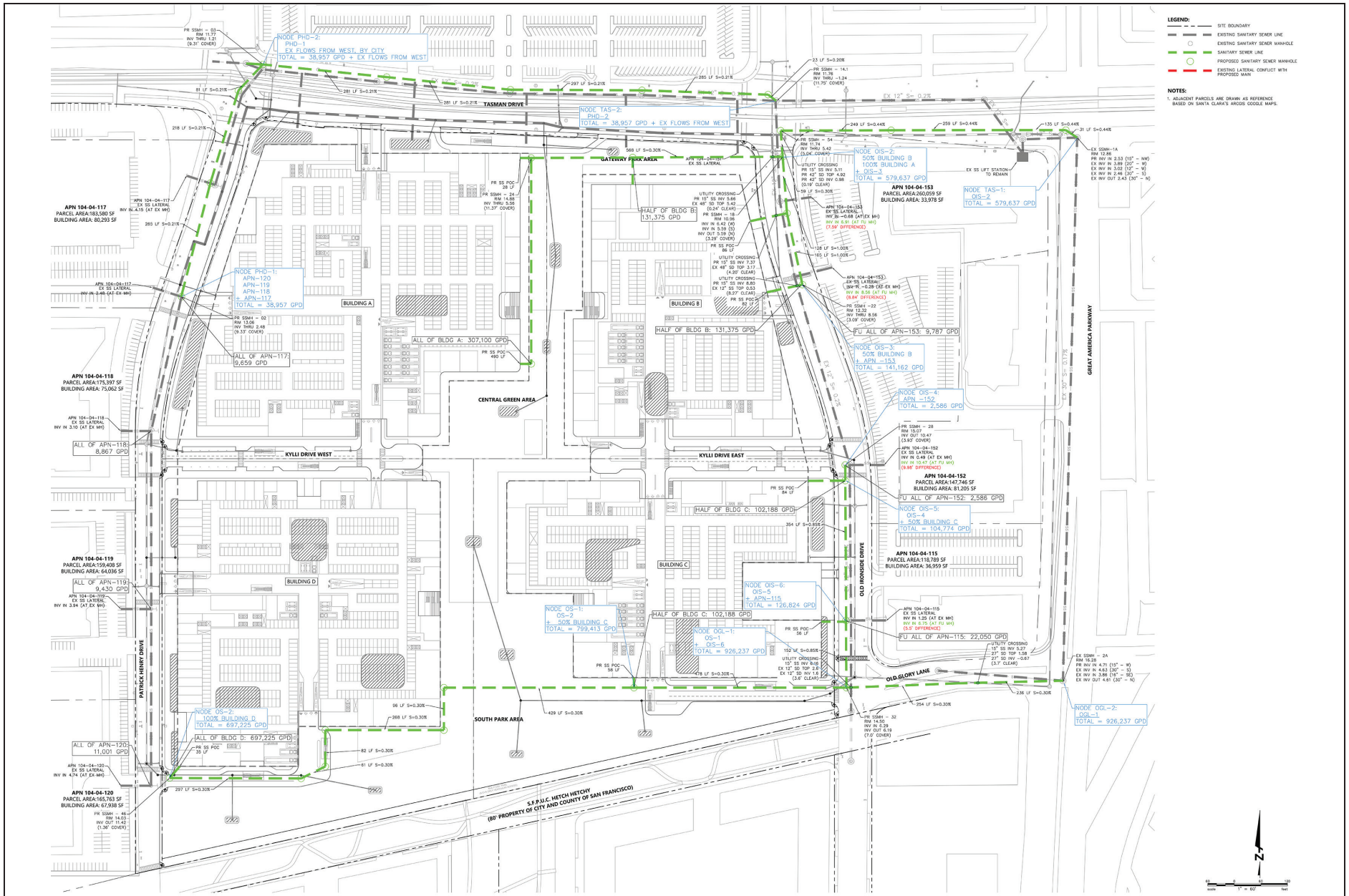
Under Option 2A, sewer flows would drain by gravity to existing manholes in Great America Parkway's west trunk. The area north of the future Kylli Drive would drain to the north and east from a proposed new private sewer within the Project site. Half of the flow from Area B would flow north through a new sewer in Old Ironsides Drive. It would then flow north through a new sewer to Tasman Drive, then flow east in Tasman Drive to drain by gravity into Great America Parkway's west trunk. The areas south of Kylli Drive would drain into a new private sewer running east parallel to the Hetch Hetchy ROW and within the Project site or a new sewer in Old Ironsides Drive, which would drain to the south to Old Glory Lane and then to the east to discharge by gravity into Great America Parkway's west trunk.

The existing sewers along Patrick Henry Drive and Old Ironsides Drive would remain in place. Flows from adjacent parcels west of the Project site would be redirected through a new sewer that would connect the downstream end of Patrick Henry Drive to the existing manhole at the intersection of Tasman Drive and Old Ironsides Drive (S93-24). The new sewer would be north of the existing 12-inch sewer in Tasman Drive. All flows that currently drain into the manhole at the intersection of Patrick Henry Drive and Tasman Drive (S92-6) would also drain into this new Tasman Drive sewer. The new 15-inch Tasman Drive sewer line would then discharge into the existing 12-inch sewer in Tasman Drive and continue east to the Tasman Drive Lift Station. The existing 12-inch Tasman Drive sewer line between manhole S92-6 and S93-24 would be abandoned in place.

Sewer Option 3A

Under Option 3A, sewer flows from the Project site would drain into a private sewer that would run south to north within the central spine of the site. Flows from Areas C and D would be routed north to a private onsite lift station between Areas A and B, then lifted into an onsite private sewer that would drain to the north and then to the east to a new sewer within Old Ironsides Drive. The new sewer within Old Ironsides Drive would then drain north to Tasman Drive and then east within Tasman Drive to drain by gravity into Great America Parkway's west trunk.

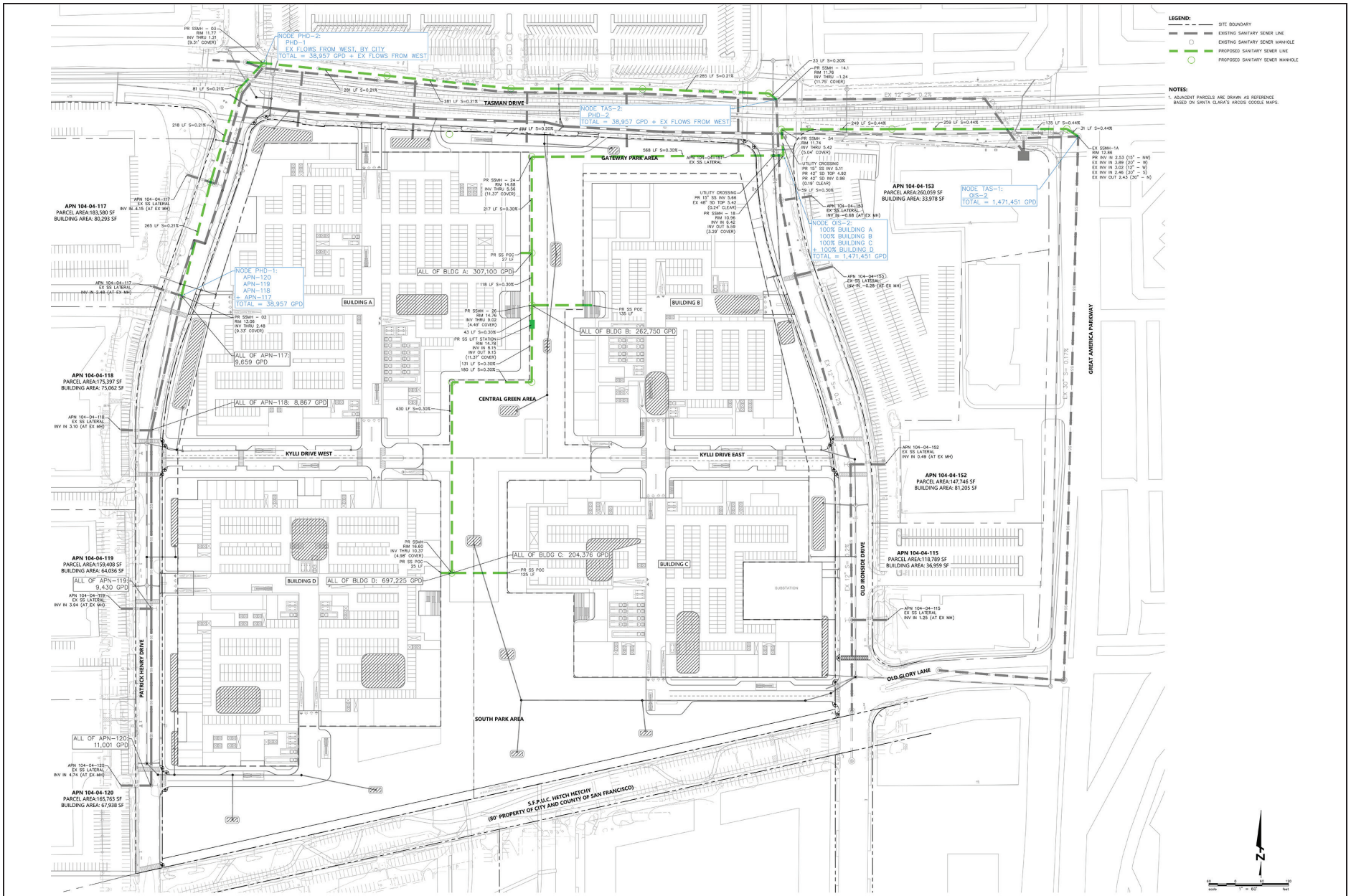
As in Option 2A, a new sewer within Tasman Drive would convey flows from adjacent parcels west of the Project site as well as flows draining into existing manhole S92-6. The new sewer would connect to the existing 12-inch Tasman Drive sewer line at manhole S93-24 (at the intersection of Tasman Drive and Old Ironsides Drive) and continue east to drain into the Tasman Drive Lift Station.



Source: BKF, 2023.

Graphics ... 103980 (09-15-2023).JC

Figure 2-14
Conceptual Project Sewer Facilities Plan - Option 2A
Mission Point Project



Source: BKF, 2023.

Graphics ... 103980 (09-15-2023) JC

Figure 2-15
Conceptual Project Sewer Facilities Plan - Option 3A
Mission Point Project

Storm Drain

The existing City-owned and -operated drainage system includes underground conveyance piping within roadway ROWs adjacent to the Project site (Figure 2-12). The Project site currently drains into storm drain lines in Tasman Drive, Democracy Way, Patrick Henry Drive, and Old Ironsides Drive. Although the Project site is near Calabazas Creek, the storm lines discharge into San Tomas Aquino Creek, which is east of the Project site. The Tasman Drive line is a 36-inch line east of the Patrick Henry Drive intersection; it transitions to a 42-inch line, then to a 48-inch line. The Tasman Drive line then continues east to Great America Parkway and ultimately discharges into San Tomas Aquino Creek. The Patrick Henry Drive line is a 24-inch line that transitions to a 36-inch line as it flows north. The line continues eastward to Democracy Way. The Democracy Way line transitions from a 36-inch line to a 42-inch line and then to a 48-inch line. The line then continues north to Old Ironsides Drive where it connects with the 48-inch Tasman Drive line. A 24-inch line in the southern portion of Old Ironsides Drive flows south toward the intersection at Old Glory Lane where it transitions to a 27-inch line and runs east to Great America Parkway, ultimately discharging into San Tomas Aquino Creek. The creek carries the runoff into San Francisco Bay. There is no overland release of stormwater directly into any creek from the Project site; all stormwater enters the creek through the existing stormwater drainage system.

The Project would have significantly more landscaped areas than under existing conditions, which would reduce the area of impervious surfaces. In addition, the Project would include new stormwater collection and conveyance infrastructure as part of the overall Stormwater Management Plan, including filtration systems throughout the Project site. This would include stormwater treatment measures to satisfy the National Pollutant Discharge Elimination System (NPDES) Municipal Regional Permit C.3 Provision.

The following stormwater treatment measures would be considered and carefully selected as part of the final design process for the different sections of the proposed development: bioretention areas, flow-through planters, tree well and media filters, infiltration trenches, rainwater harvesting and reuse, green streets, and pervious pavements or equivalent treatment measures. For final design, the underground storm drain conveyance system would need to be capable of conveying 10-year peak runoff. Public streets would need to be designed so that flows from the 100-year event would remain within the roadway limits and would not extend into private property. In addition, with vacation of the Democracy Way public ROW easement, the existing storm drain line located under the street would be abandoned and relocated as well. The Project would extend the storm drain line down Patrick Henry Drive to connect to the line in Tasman Drive. The completed grading of the street would allow runoff to pond at an elevation lower than the finished floors and release to the public street should the onsite storm drain system fail. In addition, for drainage reasons, the finished floor elevations of the buildings on the Project site would be approximately 15 feet above grade.

Electric and Energy System

Electric service in Santa Clara is provided by the City's public utility provider, SVP. A review of SVP's utility base maps indicates that there is a network of lines in all streets adjacent to the Project site, including Democracy Way, as well as other areas of the Project site (Figure 2-12).

SVP approval would be required for both abandonment of the electrical lines underlying the ROW of Democracy Way and for service to Kylli Drive East and Kylli Drive West. The utility provider would be consulted regarding the relocation of electric facilities in concert with demolition activities onsite and the installation of new substructures, cables, switches, and associated electrical facilities. SVP would maintain

the distribution system and continue to supply electricity to the Project site during all phases of construction.

The Project would include a number of measures to minimize the amount of energy used, as described under *Sustainability Features*. Nonetheless, the Project is expected to result in an increase in demand for electricity. The increased demand would exceed the capacity of the existing electric distribution system. Therefore, an approximately 18,000 gsf electrical substation would be constructed onsite to support the Project. The at-grade substation would be located on the east side of the Project site, in Area C, with no parking above or below. The substation could also support the electrical needs of the adjacent Santa Clara North area. SVP will coordinate the precise size, dimensions, and layout of the substation during the design phase. The proposed design, which is standard in the United States, would include indoor gas-insulated switchgear with less-flammable oil-filled transformers. A minimum setback of 24 feet would be provided along the street frontage.

Natural Gas

Although the City prohibits new connections to natural gas in most construction under its recently adopted "Reach Code," the code contains limited exceptions for certain uses (e.g., if an applicant can demonstrate that neither electricity nor propane is feasible). The Project may use natural gas in office/R&D uses if permitted under the Reach Code. If the project qualifies for one of the exceptions, then PG&E would be the service provider for natural gas to the Project site. The utility has a network of gas mains in all streets adjacent to and within the Project site, including the existing Democracy Way. PG&E approval would be required for both vacation of the Democracy Way public ROW easement and relocation of existing facilities. Gas service to the Project site would be provided by the existing gas mains in Patrick Henry Drive, Tasman Drive, and Old Ironsides Drive. For purposes of this analysis, and as permitted by City Reach Code Section 15.36.040(b), it was assumed that 85,000 square feet of the proposed office/R&D space would use natural gas, at an estimated 2 British thermal units (BTUs) per square foot, for a total of 170,000 BTUs for office/R&D uses.

Telecommunications

Communications service at the Project site is provided by AT&T and Comcast, the owners and operators of the systems. There is a network of communication lines in all streets adjacent to the Project site and within Democracy Way. AT&T would provide service to all buildings on the Project site. Conduits for new Comcast service would be typically installed by Comcast contractors.

Sustainability Features

Compared to a lower-density project, the proposed density at the Project site would serve to reduce the physical footprint required for the same number of people to live, socialize, and work, thereby decreasing the land, water, and energy required per capita. By mixing residential, commercial, retail, and childcare, the Project would provide a community with amenities in one place to reduce the time, distance, and environmental impacts associated with traveling to offsite locations. In addition, the Project site is adjacent to current and future transit lines and bicycle corridors, which are connected to the surrounding community. The Project would convert much of the current hardscape into open spaces, urban nature areas, recreation fields, gardens, plazas, and streetscapes that promote stormwater management and habitat restoration and use recycled water for irrigation and landscaping. The following programs and strategies, or their equivalents, are targeted to promote sustainability at the Project site:

- California Green Building Standards Code (CALGreen) (Title 24, Part 11),
- Leadership in Energy and Environmental Design (LEED) Neighborhood Development (ND) Silver project certification, or equivalent
- LEED Gold-certified offices and LEED Silver-certified residences, or equivalent, which would include the following:
    - Reductions in energy use from LEED v4 baseline,
    - Reductions in potable water compared with LEED v4 baseline, and
    - Construction waste diversion from landfills.

Energy and Carbon

The energy-efficient building design proposed would seek to minimize the amount of energy that the buildings would consume through best-practice building designs, renewable energy procurement, and alternative transportation strategies. The strategies for reducing energy use and carbon emissions at the Project site include:

- Using a low-energy building design;
- Optimizing building orientation and shading to block out unwanted direct sun in the summer, let in desirable solar gains in the winter, maximize daylighting, control glare, promote natural ventilation, and create comfortable outdoor spaces;
- Using light-colored or planted “cool roofs” to reduce heat gain;
- Using well-sealed, well-insulated façades;
- Providing natural light with glazing;
- Using landscaping in the horizontal and vertical planes to mitigate the urban heat island effect and reduce building cooling loads;
- Using LED light fixtures;
- Using daylight and occupancy sensors;
- Employing smart building controls;
- Providing premium efficiency fans and pumps;
- Supporting onsite renewable energy generation with the use of rooftop solar panels; and
- Exploring alternative transit methods, including bicycle- and pedestrian-friendly streets, connections to existing bicycle networks and public transit, bicycle parking, showers and lockers, low-emission car-share systems, preferential carpool/vanpool parking, electric-vehicle charging stations, and TDM information.
- Equipping 25 percent and 75 percent of the residential parking spaces as Level 2 Ready and lower power Level 2 Ready, respectively; 35 percent of the nonresidential parking spaces as Level 2 Electric-Vehicle Supply Equipment; and 35 percent of the nonresidential parking spaces as Level 2 Capable.

Water and Ecosystems

The Project would aim to minimize water consumption, reuse water onsite when feasible, and meet the remaining need with water treated offsite. Buildings would utilize low-flow and low-flush plumbing fixtures and accessible water data (at the building or floor level) to inform occupants of water use. Landscaping would include native and drought-resistant plants, tree canopies at parks, plazas, trails whenever possible, and flow-through planters. Recycled water would be used for nonpotable uses within commercial, childcare, and community amenity buildings.

The Project proposes reducing stormwater runoff by using planted open spaces; in-street best management practices, such as curb-cut flow-through planters; or equivalent stormwater reduction measures.

Waste and Materials

To achieve the waste reduction goal that calls for diverting up to 65 percent of waste from landfills, the Project would use salvaged, recycled, and low-impact materials where appropriate and send materials for treatment and reuse rather than sending them to the landfill. To reduce construction waste at the Project site, the Project would separate construction debris onsite to maximize recycling and encourage verified debris diversion through audit or third-party certification. The Project would achieve a 65 percent construction diversion rate and prepare a Construction Waste Management Plan or utilize a waste management company to recycle, reduce and/or reuse construction waste. (CALGreen Code Sections 4.408 and 5.408).

For operation, the Project would reduce the amount of waste produced by using reusable materials where possible, sorting the waste (compost, recycling, and landfill), and recovering and treating the separated waste streams. Site-wide strategies include waste pickup pricing schemes, educational campaigns, and access to suitable segregated waste facilities. To reduce vehicle traffic for operational waste collection, a consolidated collection strategy would be implemented, using sensors and smaller vehicles to move waste between buildings before pickup.

2.4 Project Schedule and Construction

Project Construction Schedule

The projected schedule is outlined in Table 2-7. For purposes of this analysis, construction in Area C would start in early 2025 and end in late 2028, for a total of approximately 960 working days. Construction in Area D would begin in late 2027 and end in early 2033 (approximately 1,355 working days). Construction in Area B would begin in mid-2028 and end in mid-2032, for a total of approximately 1,105 working days. Construction in Area A would start in late 2029 and end in summer 2034, lasting approximately 1,272 working days. Construction in all four areas could overlap for several years. Each area would include demolition, excavation/grading, piles, trenching, core/shells, interiors, site work, and hauling.

Table 2-7. Estimated Construction Schedule

Area[a]	Acres	Building Area Development (GSF)	Approximate Construction Start	Approximate Construction End	Approximate Construction Workdays
Area C	12.7	809,000	3/1/2025	11/3/2028	960
Area D	13.7	1,818,000	11/1/2027	1/7/2033	1,355
Area B	8.9	1,077,000	5/1/2028	7/23/2032	1,105
Area A	13.3	1,209,000	11/1/2029	9/15/2034	1,272
Total	*48.6*	*4,913,000*			

Source: Kylli, 2023.

Notes:

a. The construction schedule identified above is for informational and analysis purposes, providing a reasonable scenario of overlapping construction to enable a conservative assessment of construction impacts. The actual sequence of construction would occur in response to market demands; therefore, development may not occur by these dates or in the order set forth in this schedule.

Construction of the Project would include horizontal development (i.e., infrastructure throughout the Project site) and vertical development (i.e., buildings and structures). Horizontal development would typically precede vertical development, though the potential exists for some short-term overlap within a given area. Horizontal development would occur beyond the limits of a particular phase but only to the extent necessary to serve the intended development in that area. Horizontal development may overlap vertical development if work on a subsequent phase commences in advance of completion of construction at a prior area.

As each Project area is built, the onsite infrastructure necessary (e.g., road network, wet and dry utility installations) to support development of the area would be constructed in the portion of the site where that area is being developed. In some cases, it would be necessary to construct infrastructure in portions of the site where future areas would be developed to connect to existing infrastructure and provide a path that would serve the area that is under development.

Construction Equipment, Staging, and Employees

Typical equipment would be used during construction. This would include, but not be limited to, concrete saws, excavators, dozers, tractors, loaders, backhoes, pavers, graders, rollers, forklifts, pile drivers, generators, plate compactors, tower cranes, trawler cranes, aerial lifts, welders, air compressors, and scissor lifts. Construction activities would be contained with a chain link fence around the entire Project site. During construction in Areas C and D, construction staging would occur on small parts of the existing surface parking lot. Construction in Area B may use part of the open space area in Area B and part of the underground parking in Areas C and D for construction staging. Construction in Area A may use part of the surface parking and underground parking in Areas B, C, and D for construction staging.

The number of construction workers per day would vary, depending on the phase, with an average of approximately 400 workers onsite. This is an estimated average number of workers per day. The actual number would vary over the course of the construction period, depending on the specific construction activities occurring at any one point in time. To reduce traffic impacts, carpools would be encouraged in

the Instructions to Bidders,[20] which may include contractor incentives. In addition, VTA would be another option for construction workers to use to commute from their homes in other communities that lie between San José and Mountain View. To the extent possible, temporary parking for construction workers would occur onsite.

Building Foundations/Underground Garage/Podium Parking

The Project would include below-grade features for structured parking, areas for service access to buildings, and other below-finished-grade functions. The maximum depth of the proposed excavation would be approximately 16 feet for the one level of below-grade parking. The Project would require deep foundations, most likely auger-cast displacement piles (ACDPs); however, driven piles could also be used. ACDPs would be installed by drilling to the required depth with a hollow tipped auger and injecting concrete. Reinforcing steel would be inserted into the concrete before it begins to cure. Driven piles would be installed by force into a pre-drilled hole. Both the subgrade garage and the parking podium would very likely be precast or cast-in-place concrete. The basement wall may be shotcrete. Dewatering would be required for utility trenching and excavation for deep foundations.

Construction Spoils, Debris, and Materials

Demolition of the existing buildings at the Project site would generate approximately 3,000 tons of concrete debris, 60,000 tons of pavement debris, and 1,500 tons of other debris. The Project includes a construction and demolition plan that calls for approximately 90 to 95 percent of demolition materials to be recycled. Demolition debris, which is 100 percent recyclable, would most likely be taken to the Stevens Creek Quarry in Sunnyvale. Other debris would very likely be taken to the Zanker Material Processing Facility in San José where up to 75 to 85 percent of the remaining material would be sorted and recycled. Existing paving and concrete would be sent to the Zanker Material Processing Facility.

Organic materials cleared during construction could be stored and reused onsite for fill in what would be future landscaped areas. It is assumed that approximately 2 percent of the total excavation would be reserved onsite for open spaces and podium parks.

The estimated total quantity of soil export is assumed to be 684,000 cubic yards (cy) (217,000 cy in Area A, 129,000 cy in Area B, 152,000 cy in Area C, and 186,000 cy in Area D), which includes excavation for four podiums with one level of basement area and associated underground tunnels.

In addition to soil hauling, at an average of two hauls per day per trade contractor, the following are approximate haul truck trips per phase: 18,600 trips from Area D, 15,200 trips from Area C, 12,900 trips from Area B, and 21,700 trips from Area A. The maximum haul distance may be greater than 500 miles for deliveries of specialty equipment. However, because of the number of contractors in the Bay Area, it is assumed that all other hauling would be within a 100-mile radius of the Project site, with an average distance of 50 miles. There would be an average of 30 subcontractors for each tower, with two hauls per day per subcontractor.

[20] "Instructions to Bidders" is a document issued to subcontractors by a contracting party, such as an owner or a general contractor, during bidding that sets forth specific instructions to prospective bidders on procedures, expectations, disclaimers, and other information necessary for the preparation of a bid proposal.

2.5 Project Entitlements

Entitlements would be required to implement the Project, including a General Plan amendment and rezoning. The current General Plan land use designation for the Project site is High-Intensity Office/R&D. In addition, the City Code currently applies an ML zoning district to the Project site. A new General Plan land use designation would need to be created to allow for redevelopment of the Project site. The Project site would also be rezoned.

General Plan Amendment

To accommodate high-intensity, urban-oriented development at the scale of commercial square footage assumed by the General Plan, including 1,800 new residential units, a new General Plan land use designation is proposed. A General Plan amendment is required to redesignate the Project site with the proposed Urban Center Mixed Use designation, which is proposed with a classification of "Mixed-Use" under the General Plan. The recommended classification of Urban Center Mixed Use shall be incorporated into the General Plan, as follows:

> The Urban Center Mixed Use designation is intended for pedestrian-oriented, high-intensity and very high-density mixed-use development in a transit-rich area. It permits high-rise commercial office and residential development (in either mixed-use or stand-alone buildings), subject to Federal Aviation Administration height restrictions; ground-level neighborhood-serving retail; and landscaped areas for employee and resident activities. Permitted uses include multifamily residential and co-living, office and R&D uses, light manufacturing, and neighborhood-supporting retail and services that serve local employees, residents, and visitors. Parking is typically structured or below grade. The minimum FAR is 1.5, and the residential maximum density is up to 250 dwelling units per acre.

Rezoning

The Project site would be rezoned to PD, in accordance with Chapter 18.54 (Regulations for PD – Planned Development and Combined Zoning Districts) of the Santa Clara Zoning Ordinance. Provisions therein allow for designation of a PD zoning district on project sites with a mix of integrated land uses that are not permitted to be combined in other zoning districts (e.g., the Project's mix of residential, office/R&D, neighborhood retail, and childcare facilities, along with community space). The Project Sponsor would also include a development plan for the Project site, which, if approved by the City Council, would become part of the City zoning map.

2.6 Project Approvals

City Approvals

The following discretionary approvals by the City would be required prior to development at the Project site and would be informed by the environmental impact report (EIR):

- **General Plan Amendment.** A General Plan amendment would be required to amend the existing designation from High-Intensity Office/R&D to a newly established mixed-use designation, allowing a high-intensity mix of office, commercial, and residential uses.
- **Rezoning.** The City Code currently applies the ML zoning district to the Project site. The Project would involve rezoning the Project site to PD, which is intended to create regulations for large-scale integrated development that would be compatible with the existing community. In addition, the

rezoning would address the proposed timing for the delivery of parks and open space, as well as roadway and utility infrastructure, and would govern the design and construction of infrastructure to support development of the Project.

- **Tentative Subdivision Map and/or Vesting Tentative Subdivision Map.** A tentative subdivision map and/or vesting tentative subdivision map would be required and filed concurrently with the General Plan amendment and rezoning, or subsequent to City Council actions.
- **Development Agreement.** A development agreement with the City would create vested rights in Project approvals during the lengthy construction period, address implementation of the proposed design and infrastructure improvements in the Project, and specify benefits to the City.
- **Architectural Review.** The City's Development Review Hearing would review the plans and drawings submitted for design, aesthetic considerations, and consistency with the Project's PD zoning standards. Approvals would be required before permit issuance.
- **Tree Removal**. A tree removal permit would be required prior to tree removal at the Project site.
- **Transportation Demand Management Plan**. The Project Sponsor is preparing a TDM plan for the Project site, which would help reduce Project-related vehicle miles traveled.
- **Affordable Housing Plan**. The Project Sponsor is preparing an Affordable Housing Plan for the Project site, which would outline inclusionary requirements for the Project and impact fees.
- Relevant permits and approvals for vacation of the public ROW easement for Democracy Way, the relocation of public utility easements (including the potential for tunnels/utilities under and/or bridges/connections over New Democracy Way), and the establishment of Kylli Drive East and Kylli Drive West as private streets, subject to public and emergency access easements.

Approvals by Responsible Agencies

Agency approvals that may be needed for the Project to proceed are identified below. The agencies are expected to review this draft EIR in evaluating the Project.

- Bay Area Air Quality Management District – Permitting of asbestos abatement activities, if any, and permits for additional onsite generators. Permits may also be required for boilers, backup generators, and other utility equipment.
- California Department of Transportation – Review of traffic circulation effects and consultation on potential traffic improvements affecting State highway facilities, ramps, and intersections.
- Federal Aviation Administration – Review of heights in the General Plan Amendments per the Federal Aviation Regulation Part 77.
- San Francisco Bay Regional Water Quality Control Board – Approval of the NPDES permit for stormwater discharges.
- Santa Clara County Department of Public Health – Review of food service functions and additional onsite generators.
- Santa Clara Fire Department – Approval of proposed fire prevention systems, additional onsite generators, and emergency vehicle access.

Chapter 3
Environmental Impact Analysis

Chapter 3 of the Draft Environmental Impact Report (Draft EIR) presents an analysis of the potential environmental impacts that the Mission Point Project (Project) could have on existing environmental conditions. The environmental analysis has been prepared in accordance with the California Environmental Quality Act (CEQA), as amended (Public Resources Code Section 21000, et seq.), and the State CEQA Guidelines.

Organization of This Chapter

Each CEQA topic or environmental issue in this chapter is given its own section, containing the following subsections:

- **Regulatory Setting**—Describes the federal, State of California (State), and local regulations regarding the impact topic applicable to construction and operation of the Project.
- **Environmental Setting**—Describes existing baseline conditions, including the environmental context and background. The environmental baseline for purposes of the analyses is discussed in detail below.
- **Environmental Impacts**—Identifies thresholds of significance and evaluates how the Project would affect baseline conditions during both construction and operation. If the change to baseline conditions would exceed the significance thresholds, this would constitute a significant impact, and mitigation measures to reduce, eliminate, or avoid the significant impacts would be suggested. This section also analyzes cumulative impacts, as described in detail below.

CEQA Methodology

State CEQA Guidelines Section 15151 provides guidance for the preparation of an adequate EIR.

- An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with the information needed to enable them to make a decision that intelligently takes account of environmental consequences.
- An evaluation of the environmental impacts of a project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible.
- Disagreement among experts does not make an EIR inadequate; however, the EIR should summarize the main points of disagreement among the experts.

In practice, this guidance suggests that EIR preparers adopt a reasonable methodology upon which to estimate impacts and make reasonable assumptions using the best information reasonably available.

Classification of Impacts

The City of Santa Clara (City) bases its impact significance criteria on the State CEQA Guidelines (Appendix G). These criteria, as well as City-adopted significance criteria for transportation impacts related to vehicle miles traveled, are used to evaluate Project impacts throughout the document. These criteria are listed at the beginning of the Environmental Impacts section under Thresholds of Significance throughout this chapter. Both construction and operations-related impacts are described for the resources analyzed. Resources with no construction or operations-related impact are discussed further below.

For each significant impact identified, the Draft EIR provides feasible mitigation measures, when available, to reduce, eliminate, or avoid the adverse effect. If the identified feasible mitigation measures would reduce the impact to a less-than-significant level, then this is stated in the Draft EIR. However, if the mitigation measures would not diminish these effects to less-than-significant levels, then the Draft EIR classifies the impacts as *significant and unavoidable*. This Draft EIR also identifies less-than-significant impacts that do not require mitigation.

In Chapter 3, impacts are defined using an alphanumeric system that identifies the environmental topic of the impact. For example, NOI-1 denotes the presentation of the first impact in the Noise section. The abbreviated codes used to identify the environmental issues discussed in this chapter are listed below.

- LU—Land Use
- TRA—Transportation
- AQ—Air Quality
- GHG—Greenhouse Gas Emissions
- EN—Energy
- NOI—Noise
- CUL—Cultural Resources
- BIO—Biological Resources
- GEO—Geology and Soils
- WQ—Hydrology and Water Quality
- HAZ—Hazardous Materials
- POP—Population and Housing
- PS—Public Services
- TCR—Tribal Cultural Resources
- UT—Utilities and Service Systems

Mitigation Measures

The mitigation measures identified in this Draft EIR were developed during the analysis and designed to reduce, minimize, or avoid potential environmental impacts associated with the Project to the extent feasible. According to State CEQA Guidelines Section 15126.4 (a)(1)(A):

> The discussion of mitigation measures shall distinguish between measures that are proposed by the project proponents to be included in the project and other measures proposed by the lead, responsible, or trustee agency or other persons that are not included but the agency determines could reasonably be expected to reduce adverse impacts if required as conditions of approving the project. This discussion shall identify mitigation measure for each significant environmental effect identified in the EIR.

In this Draft EIR, mitigation measures are identified immediately following each significant impact. The mitigation measures are numbered to correspond to the impacts they address. For example, Mitigation Measure AQ-2.1 refers to the first mitigation measure for Impact AQ-2 in the *Air Quality* section.

A Mitigation Monitoring and Reporting Program (MMRP) will be included in the Final EIR. Before the City Council approves the Project, it must adopt the MMRP. Pursuant to State CEQA Guidelines Section 15097, an MMRP is a mechanism for monitoring and reporting revisions to a project or the conditions of approval that a public agency has required as mitigation to lessen or avoid a significant environmental effect. The City can conduct the reporting or monitoring, or it can delegate the responsibilities to another public agency or private entity that accepts the delegation. The MMRP for the Project will identify the following: the specific monitoring actions that shall be taken, the party responsible for implementing the mitigation measures, the various City departments or other entities that shall oversee completion of the mitigation, and a timeline for implementation of the measures. The responsible departments or other entities shall ensure implementation of the measures. Implementation of the mitigation measures, consistent with the MMRP, would reduce the severity of many of the significant impacts identified in this Draft EIR or eliminate them.

Resource Topics with No Impact, Requiring No Further Analysis

Section 15128 of the State CEQA Guidelines states that "an EIR shall contain a statement briefly indicating the reasons that various potential significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR." Implementation of the Project would not result in significant environmental impacts related to aesthetics, agricultural and forestry resources, mineral resources, or wildfire. Therefore, these issues are not discussed further in Chapter 3 of this Draft EIR; however, they are briefly summarized below.

Aesthetics

Senate Bill (SB) 743 was signed by Governor Brown on September 27, 2013, and became effective shortly thereafter on January 1, 2014. SB 743 amended CEQA by adding Public Resources Code Section 21099, which states that "aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment."[1] Accordingly, aesthetics and parking are no longer to be considered in determining if a project has the potential to result in significant environmental effects if the project meets all of the following criteria:

- The project is on an infill site,[2]
- The project is in a transit priority area, [3] and
- The project is a residential, mixed-use residential, or an employment center use.[4]

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1 California Legislative Information. *Senate Bill No. 743, Chapter 386.* Available: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB743. Accessed: October 31, 2022.

2 CEQA Section 21099(a)(4) defines "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."

3 CEQA Section 21099(a)(7) defines "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."

4 CEQA Section 21099(a)(1) defines "employment center project" as "a project located on property zoned for commercial uses with a floor area ratio of no less than 0.75 and that is located within a transit priority area."

The Project fulfills each of the three criteria listed above because it would be (1) on an infill development site that is already developed, including light industrial buildings and a paved surface parking lot, and adjacent to sites zoned for light industrial and planned development; (2) within a transit priority area due to its proximity to transit options, including Altamont Corridor Express (ACE) Commuter Service, Amtrak, Caltrain, and Santa Clara Valley Transportation Authority (VTA);[5,6] and (3) a mixed-use residential project that would also be classified as an employment center. Therefore, this EIR does not consider aesthetics or the adequacy of parking in determining the significance of project impacts under CEQA.

Public Resource Code Section 21099(d) states that a lead agency has the authority to "consider aesthetic impacts pursuant to local design review ordinances or other discretionary powers provided by other laws or policies." [7] However, aesthetic impacts do not include impacts on historical or cultural resources.[8]

It is noted that the Project would require, among other approvals, discretionary approval at the City's development review hearing to ensure compliance with local design review ordinances.

Agricultural and Forestry Resources

There were approximately 25,990 acres of farmland, including Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance, in Santa Clara County as of 2016, the year with the most recent data.[9] The Project site is in a developed, urbanized area of Santa Clara; it is not used for agricultural purposes. The Project site is designated in the City of Santa Clara 2010–2035 General Plan (General Plan) for High-Intensity Office/Research-and-Development (R&D) uses.[10] The City's Zoning Code currently designates the Project site as Light Industrial (ML). The Project site is not designated by the California Department of Conservation as farmland of any type[11] and is not the subject of a Williamson Act contract, which is a statewide agricultural land protection program.[12] Furthermore, no land adjacent to the Project site or within the vicinity is designated for or used as farmland. Therefore, the Project would result in ***no impact*** on agricultural resources.

According to California Public Resource Code Section 12220(g), "forestland" is land that can support 10 percent native tree cover from any species, including hardwoods, under natural conditions and allow

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5 Per Public Resources Code 21155 et seq., to quality as a transit priority project, a project must meet the following criteria: be consistent with the general use designation, density, and building intensity, as well as applicable policies, of the adopted Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS); have at least 50 percent residential use; have a floor area ratio of 0.75 or more if the project has between 26 and 50 percent nonresidential uses; have a minimum net density of at least 20 dwelling units per acre; and be within 0.5 mile of a major transit stop or high-quality transit corridor included in the RTP/SCS.

6 Visit Santa Clara. 2023. *Public Transportation*. Available: https://www.santaclara.org/getting-around/public-transportation/. Accessed: June 13, 2023.

7 California Legislative Information. *Senate Bill No. 743, Chapter 386*. Available: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB743. Accessed: October 31, 2022.

8 Ibid.

9 California Department of Conservation. 2016. *County Conversion Tables of the 2014–2016 California Farmland Conversion Report.* Appendix A. Available: https://www.conservation.ca.gov/dlrp/fmmp/Pages/2014-2016_Farmland_Conversion_Report.aspx. Accessed: August 23, 2023.

10 City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan.* Available: https://www.santaclaraca.gov/home/showpublisheddocument/56139/636619791319700000. Accessed: August 23, 2023.

11 California Department of Conservation. 2022. *California Important Farmland Finder*. Available: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed: August 24, 2023.

12 County of Santa Clara. 2016*. Williamson Act Properties*. Available: https://sccplanning.maps.arcgis.com/apps/webappviewer/index.html?id=1f39e32b4c0644b0915354c3e59778ce. Accessed: October 31, 2022.

management of one of more forest resources, including timber as well as resources with aesthetic, wildlife, biodiversity, water quality, recreational, or other public benefits. According to California Public Resources Code Section 4526, "timberland" means land, other than that owned by the federal government or designated by the California Department of Forestry and Fire Protection (CAL FIRE) as experimental forestland, that is available and capable of growing a crop of trees of any commercial species to produce lumber and other forest products, including Christmas trees. The Project site is not considered forestland or timberland, nor are there forest resources in the surrounding area.[13] Construction of the Project could result in the removal of trees at the Project site; however, any tree removal would require a tree removal permit, which would verify that the trees were ornamental, landscaping, or urban trees and consequently not considered to be forestry resources per the California Public Resource Code definitions described above. Based on a review of maps and aerial photographs of the Project site, as well as site visits, the Project site is not on or in the immediate vicinity of forestlands or timberlands. The surrounding area is characterized by high-intensity office, regional commercial, light industrial, and residential uses; therefore, implementation of the Project would have ***no impact*** on forestry resources.

Mineral Resources

The Surface Mining and Reclamation Act of 1975 (Act) is State legislation that protects Mineral Resource Zones (MRZs). Part of the purpose of the Act is to classify mineral resources in California and transmit the information to local governments that regulate land uses in each region of California. Local governments are responsible for designating lands that contain regionally significant mineral resources in local general plans to ensure resource conservation in areas with intensive competing land uses. In addition, the law has resulted in the preparation of Mineral Land Classification Maps, delineating MRZs 1 through 4 for aggregate resources (e.g., sand, gravel, stone).

The General Plan EIR indicates that Santa Clara is an area that has been designated by the State as MRZ 1.[14,15] According to geologic information, MRZ 1 has no significant mineral deposits and little likelihood exists for their presence. The area is not known to support significant mineral resources of any type, and no mineral resources are currently being extracted. The Division of Mine Reclamation's list of mines (i.e., the Assembly Bill 3098 list) regulated under the Act does not include any mines that are in Santa Clara.[16,17] Furthermore, the Project site is not classified as a locally important mineral resource by the California Geological Survey or on any City or County of Santa Clara land use plan. The minerals commonly found in Santa Clara County include construction aggregate deposits, such as sand, gravel, limestone, and crushed stone, as well as salt

[13] City of Santa Clara. 2014. *General Plan Land Use Diagram Phase II: 2015–2023 and General Plan Land Use Diagram Phase III: 2023–2025*. Updated: December 9. Available: https://www.santaclaraca.gov/home/showpublisheddocument/56139/636619791319700000. Accessed: October 31, 2022.

[14] California Department of Conservation, Division of Mines and Geology. 1996. *Update of Mineral Land Classification: Aggregate Materials in the South San Francisco Bay Production-Consumption Region.* Available: Available: http://ab900balboa.com/EIR_References/1996_cdc%20dmg_OFR_96-03_Text.pdf. Accessed: August 24, 2023.

[15] City of Santa Clara. 2011. *City of Santa Clara Draft 2010–2035 General Plan.* Integrated Final Environmental Impact Report. January. Available: https://en.calameo.com/read/0001738832127bce3ed07. Accessed: October 31, 2022.

[16] California Department of Conservation, Division of Mine Reclamation. 2019. *Assembly Bill 3098 List*. August. Available: https://www.conservation.ca.gov/dmr/SMARA%20Mines. Accessed: October 31, 2022.

[17] California Department of Conservation, Division of Mine Reclamation. 2016. *Mines Online, 3005 Democracy Way, Santa Clara, California*. Available: http://maps.conservation.ca.gov/mol/index.html. Accessed: August 24, 2023.

that has evaporated from the southern portion of San Francisco Bay.[18] Therefore, construction and operational activities associated with the Project would have ***no impact*** on mineral resources.

Wildfire

According to CAL FIRE, the Project site is in a Local Responsibility Area, meaning that fire protection is typically provided by local fire services. The Project site is also classified as a low Fire Hazard Severity Zone (FHSZ).[19,20] According to the General Plan, "Santa Clara does not have the terrain or vegetation conditions for large or devastating wildfires."[21] Therefore, the Project would result in ***no impacts*** related to wildfire.

Environmental Baseline

In determining whether impacts are significant, an EIR ordinarily compares the potential impacts of a project with pre-project environmental conditions. Sections 15125(a) and 15126.2(a) of the State CEQA Guidelines specify that the baseline normally consists of the physical conditions that existed at the time when the Notice of Preparation (NOP) was published or the time when the environmental analysis began. Consistent with the State CEQA Guidelines, the approach to the analysis of the Project in the Draft EIR compares potential impacts of the Project with the physical conditions that existed at the time when the NOP was released. The NOP was released in April 2022.

The Project site is composed of nine parcels, totaling 46.01 acres, as well as Democracy Way, a privately owned street that is subject to an existing public right-of-way (ROW) easement that covers approximately 2.6 acres, for a combined total Project area of 48.61 acres. The Project site currently includes four light industrial buildings, totaling 142,050 gross square feet (gsf), on the northern portion of the site and a paved surface parking lot just south of Democracy Way with approximately 5,081 parking spaces. The existing primary use of the Project site is temporary event parking for Levi's stadium, which uses 3,300 parking spaces.[22] The rest of the parking spaces are used by Amazon as a drivers' training ground.

Regional access to the Project site is provided by US 101 and State Route (SR) 237 from interchanges at Great America Parkway/Bowers Avenue and Lawrence Expressway. Commuters may also use transit options that include ACE Commuter Service, Amtrak, Caltrain, and VTA.[23] Bicycle access to the Project site is provided by the off-road Calabazas Creek Trail, a Class II bicycle lane along Great America Parkway, and

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18 Santa Clara County. 1994. *Santa Clara County General Plan*. Mineral Resources. Available: https://stgenpln.blob.core.windows.net/document/GP_Book_B.pdf. Accessed: October 31, 2022.

19 California Department of Forestry and Fire Protection. n.d. *State Responsibility Area Viewer*. Available: https://calfire-forestry.maps.arcgis.com/apps/webappviewer/index.html?id=468717e399fa4238ad86861638765ce1. Accessed: August 24, 2023.

20 California Department of Forestry and Fire Protection. n.d. *FHSZ Viewer*. Available: https://egis.fire.ca.gov/FHSZ/. Accessed: August 24, 2023. Please note that the FHSZ Viewer lists areas that are Moderate, High, or Very High FHSZs; on this map, the Project site does not fall under any of these categories and is inferred to be a Low FHSZ by default.

21 City of Santa Clara. 2011. *City of Santa Clara Draft 2010–2035 General Plan*. Integrated Final Environmental Impact Report. January. Available: https://en.calameo.com/read/0001738832127bce3ed07. Accessed: October 31, 2022.

22 To prepare the site for parking, the previous owner demolished six single-story office/industrial buildings in 2011 that were located on the Project site.

23 Visit Santa Clara. 2023. *Public Transportation*. Available: https://www.santaclara.org/getting-around/public-transportation/. Accessed: June 13, 2023.

San Tomas Aquino Creek Trail. Local access to the Project site is provided from Tasman Drive via Patrick Henry Drive, Old Ironsides Drive, Old Glory Lane, and Democracy Way.

Approach to Cumulative Impacts

In addition to the evaluation of project-specific impacts, CEQA also requires an evaluation of cumulative impacts. In accordance with CEQA, the discussion of cumulative impacts must reflect the severity of the impacts and the likelihood of their occurrence; however, the discussion need not be as detailed as the discussion of environmental impacts attributable to a project alone. According to Section 15355 of the State CEQA Guidelines:

> "Cumulative impacts" refers to two or more individual effects that, 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 that results from the incremental impacts 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.

State CEQA Guidelines Section 15130(b)(1) states that one of the following approaches is necessary for an adequate discussion of significant cumulative impacts:

> (a) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or
>
> (b) 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. Such plans may include a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in a prior adopted or certified environmental document for such a plan. Such projections may be supplemented with additional information, such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency.

Depending on the specific cumulative resource topic being addressed, the list approach or the projection approach, or a combination of the two, is used throughout this Draft EIR. Cumulative impacts are denoted by a "C" (i.e., Impact C-NOI-1). The analysis of cumulative impacts follows the Project-specific impact evaluation and recommendation for mitigation in each section. An introductory statement, defining the applicable cumulative context (e.g., Santa Clara, San Francisco Bay Area Air Basin) being analyzed for the respective topical section, is included at the beginning of each cumulative impacts section. In some instances, a Project-related impact that may be considered less than significant would be considered a potentially significant cumulative impact in combination with development in the surrounding cumulative area. Similarly, a potentially significant Project-specific impact may not result in a cumulatively considerable impact.

The closely related past, present, and reasonably foreseeable future projects considered in this Draft EIR are listed in Table 3-1. Total cumulative development is presented in Table 3-2. The locations of cumulative projects are depicted in Figure 3-1.

Table 3-1. Cumulative Projects

Map ID#	Project Name/Location	Description	Site Acreage (acres)	Proposed		
				Housing Units	Commercial/ Retail GSF	Office GSF
1	3001 Tasman Drive	This project proposes a four-story, 150,000 gsf office development with two six-level parking structures on 4.05 acres of a 19.26-acre parcel located north of Tasman Drive between Patrick Henry Drive and Old Ironsides Drive. The property is zoned Light Industrial.	4.05	—	—	150,000
2	2901 Tasman Drive	General Plan amendment to High-Density R&D to facilitate demolition of four two-story buildings and construction of a 12-story office building, a two-story amenity building, and an eight-story parking structure.	10	—	—	1,070,344
3	Patrick Henry Specific Plan (bounded by Great America Parkway to the east, the San Francisco Public Utility Commission right-of-way ("Hetch-Hetchy right-of-way") to the north, Sunnyvale and Calabazas Creek to the west, and Mission College Boulevard to the south)	Two distinct total development capacities were studied: (1) Scenario A ("maximum residential development"), allowing up to approximately 12,000 net new residential units and 310,000 net new gsf of non-residential uses (150,000 gsf retail, 90,000 gsf flex, and 70,000 gsf community facilities) by 2040, and (2) Scenario B ("maximum office development"), allowing up to approximately 10,300 net new residential units, 785,000 net new gsf of office uses, and 310,000 net new gsf of other non-residential uses (150,000 gsf retail, 90,000 gsf flex, and 70,000 gsf community facilities) by 2040.	73.59	12,000 or 10,300	310,000	— or 785,000
4	4949 Great America Parkway	General Plan amendment and rezoning to Planned Development (PD) to develop a 22-story, mixed-use high-rise hotel.	3.86	—	51,662 (319 hotel rooms)	—
5	Freedom Circle Focus Area (bounded by Great America Parkway to the west, California's Great America amusement park to the north, San Tomas Aquino Creek to the east, and US 101 to the south)	The Freedom Circle Focus Area would make changes to the land use diagram to depict future land uses anticipated in the area. The Freedom Circle Focus Area, which is designated primarily High-Intensity Office/R&D, with some Regional Commercial, would allow development of up to 3,600 dwelling units (including the Greystar project site), 2 million gsf of net new office space, and 2,000 gsf of retail uses (on the Greystar project site), with at least 2 acres provided for public parks. The Freedom Circle Focus Area proposes the following general	108	2,500	—	2,000,000

Map ID#	Project Name/Location	Description	Site Acreage (acres)	Proposed		
				Housing Units	Commercial/ Retail GSF	Office GSF
		land use designations, which would be refined during the planning process, based on community, landowner, and City discussions: High-Intensity Office/R&D, Very High-Density Residential (51–100 dwelling unit/acre), Very High-Density Mixed Use (51–100 dwelling units/acre and floor area ratio of 2.0), Regional Commercial, Parks/Open Space, and Public/Quasi-Public.				
6	3905 Freedom Circle	This project proposes a General Plan amendment and rezoning to PD to construct a mixed-use development project on a 13.3-acre site within the Freedom Circle Focus Area, consisting of up to 1,100 residential units with 1,540 parking spaces, up to 2,000 gsf of commercial space with 10 parking spaces, and a 2-acre public park.	13.3	1,100	2,000	—
7	City Place (Related Santa Clara)	Construction of a new multi-phased, mixed-use development with up to 9.16 million gsf for office buildings, retail and entertainment facilities, residential units, and hotel rooms, along with parking facilities (surface and structure), new open spaces and roads, landscaping and replacement trees, and new/upgraded/expanded infrastructure and utilities.	240	1,680	1,540,000 (plus 700 hotel rooms)	5,400,000
8	2343 Calle del Mundo	SummerHill Apartment Communities proposes demolition of three light industrial buildings on a 3.06-acre site within the Tasman East Specific Plan area. The light industrial buildings would be replaced by one 347-unit apartment building. In addition, 0.4178 acre would be dedicated to the City for a park (i.e., a dog park and children's play area). The proposed park would include walking and bicycling paths that would connect to the broader Tasman East bicycle and pedestrian network. The proposed apartment building would have two stories for aboveground parking, seven stories for residential units and associated building amenities, and a community garden. SummerHill proposes a new residential area with a total of 275,000 gsf, along with 396 vehicular parking spaces and 24 bicycle parking spaces.	3.06	347	—	—

Map ID#	Project Name/Location	Description	Site Acreage (acres)	Proposed		
				Housing Units	Commercial/ Retail GSF	Office GSF
9	2263 Calle del Mundo	The approximately 0.95-acre project, proposed within the Tasman East Specific Plan area, includes a mixed-use, mid-rise building with approximately 316 residential units; accessory residential amenities; and structured parking. The project aims to promote a reduction in onsite resource usage through drought-tolerant landscaping, stormwater solutions, shaded open spaces, electric-vehicle charging stations, and green building strategies.	0.95	316	—	—
10	2233 Calle del Mundo	This project proposes demolishing a 16,760 gsf warehouse to build a 196-unit apartment community within the Tasman East Specific Plan area. All or a number of the units in the community may be rent and income restricted.	1.22	196	—	—
11	2354 Calle del Mundo	This project proposes demolishing a 6,712 gsf commercial building to construct a 110-unit mid-rise apartment community on a 19,998-square-foot site within the Tasman East Specific Plan area.	0.46	110	—	—
12	2225 Calle de Luna and 2232 Calle del Mundo	This project proposes demolishing a pair of two-story buildings totaling 27,000 gsf to construct a 371-unit multi-family housing development in a pair of eight-story buildings on two parcels with a total lot area of 2.024 acre. The project would also include 306 parking spaces.	2.02	371	—	—
13	2200 Calle de Luna	This project proposes replacing a light industrial building with 580 residential units in two 12-story buildings as well as one 11-story building with basement and garage parking. The property is zoned Transit Neighborhood.	3.90	580	—	—
14	5185 Lafayette Drive	The proposed 18-story building, which is included in the Tasman East Specific Plan area, includes 271 residential units and 24,730 gsf of double-height retail/commercial space that would be interconnected on the first two floors with 223 parking spaces and amenity space.	0.90	271	24,730	—

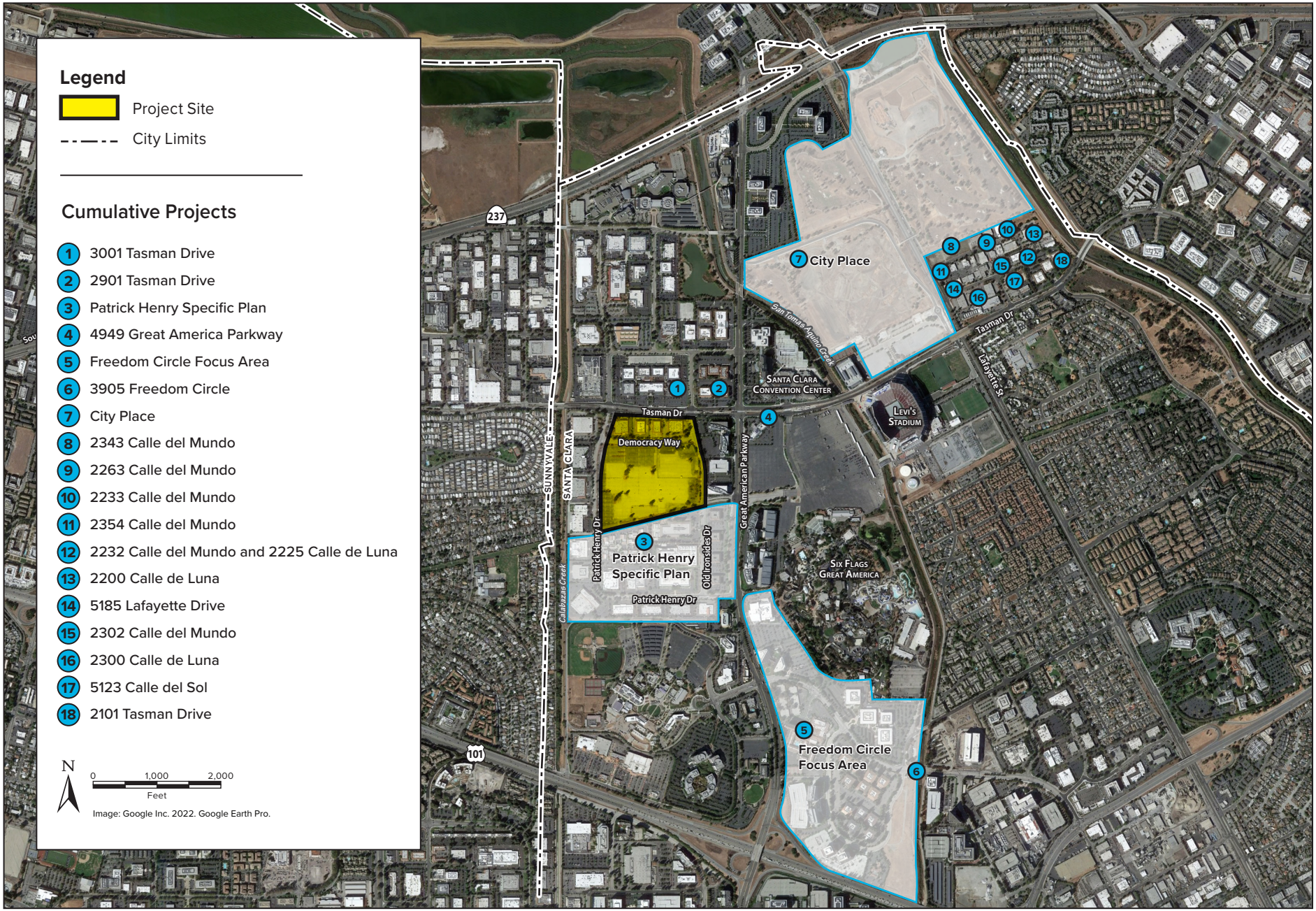
Map ID#	Project Name/Location	Description	Site Acreage (acres)	Proposed		
				Housing Units	Commercial/ Retail GSF	Office GSF
15	2302 Calle del Mundo	The project proposes up to 150 multi-family units, a parking structure, and 5,000 gsf of general retail in an eight-story building. The proposed project, which is included in Tasman East Specific Plan area Parcel 24, covers approximately 0.77 acre and would be bounded on the north by Calle Del Mundo and on the east by the future Calle Del Sol extension.	0.77	150	5,000	—
16	2300 Calle de Luna	The project proposes development of a 5.52-acre site within the Tasman East Specific Plan area. The project would include 509 residential units, 191 assisted-living units for seniors, 19,410 gsf of retail space, 15,737 gsf of flexible and amenity space, and a 0.5-acre park. Two residential towers, one a 20-story home for the ambulatory/aged and one a 22-story tower with rental housing, would be developed over mid-rise/podium garages.	5.52	700	19,410	—
17	5123 Calle del Sol	This project proposes up to 503 residential units and 23,870 gsf of retail space on Parcel 19 (mid-rise building) and Parcel 29 (high-rise building) in the Tasman East Specific Plan area. Parcel 19 consists of 311 units with amenity space and 15,870 gsf of retail space on 1.87 acres. Parcel 29 consists of 192 units with amenity space and 8,000 gsf of retail space on 0.75 acre. The existing industrial buildings would be demolished.	1.87	503	23,870	—
18	2101 Tasman Drive	Two potential design schemes are proposed, both of which include development of a 1.5-acre park: the Mid-Rise Scheme, providing two 8-story residential buildings with 900 units and one level of below-grade parking, and the High-Rise Scheme, providing two 21-story residential buildings with 950 units and one level of below-grade parking.	7.76	950	—	—

Table 3-2. Total Cumulative Development

	Commercial (gsf)	Hotel (rooms)	Industrial (gsf)	Residential (units)
Total	11,382,016[a,b]	1,019	0	21,774

a. Commercial uses include offices, retail establishments, R&D facilities, and/or medical offices.

b. Regarding Map ID #3, the Patrick Henry Specific Plan, the calculations included in this table used the larger estimate for housing units and commercial gsf.



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Figure 3-1
Cumulative Project
Mission Point Project

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3.1 Land Use and Planning

This section describes the existing and proposed land uses within and around the Mission Point Project (Project) site and evaluates the potential for impacts related to land use to occur as a result of development of the Project. This section also addresses the consistency of the Project with applicable land use goals and policies from the City of Santa Clara 2010–2035 General Plan (General Plan);[1] Santa Clara City Code; Title 18, Zoning Ordinance (current through Ordinance 2046, effective April 5, 2022); and the Airport Land Use Commission (ALUC) Comprehensive Land Use Plan (CLUP), the latter of which was adopted to mitigate, or avoid, significant environmental effects that can result from development in areas surrounding airports in Santa Clara County.

The General Plan and City Code consistency analysis is provided for environmental review purposes only. The City Council will ultimately determine the Project's consistency with the full set of goals and policies contained in the General Plan, as well as other City of Santa Clara (City) requirements and planning documents, and could come to consistency determinations, in the land use approval context, that differ from those of this Draft Environmental Impact Report (Draft EIR), from the standpoint of the California Environmental Quality Act (CEQA).

Land use and planning impact analyses under CEQA generally consider the compatibility of a project with neighboring areas, change to or displacement of existing uses, the potential for a project to cause physical division of an established community, and consistency of a project with relevant local land use policies that have been adopted with the intent to mitigate or avoid an environmental effect. The magnitude of land use conflicts or compatibility issues depends on the nature and specific purpose of each program and policy as well as how a project affects the existing development pattern, development intensity, and local air quality, noise, and visual setting in the immediate area. Specific environmental issues (e.g., visual, transportation, air quality, noise) and their potential significance are discussed in detail in the associated topical resource sections of this Draft EIR (Chapter 3, *Environmental Impact Analysis*, *Aesthetics* subheading; Section 3.2, *Transportation*; Section 3.3, *Air Quality*; and Section 3.6, *Noise*, respectively).

Comments pertaining to land use were received in response to the Notice of Preparation (NOP) (Appendix 1). One comment letter was received from the City of Sunnyvale regarding the Project's compatibility with surrounding existing land uses, including Levi's Stadium. The Project's compatibility with existing land uses is discussed below. No other agency provided NOP comments related to neighboring land uses.

Existing Conditions

Regulatory Setting

City of Santa Clara 2010–2035 General Plan

The City General Plan, adopted in 2010, last underwent a significant amendment in 2014. The General Plan guides physical development in Santa Clara as well as the character of Santa Clara. The General Plan, which sets forth City policies regarding the types of future land uses and their locations, is used by the

[1] City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan*. Adopted: November 16, 2010. Last amended: December 9, 2014. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan. Accessed: October 14, 2022.

City Council and Planning Commission when considering planning and land use decisions. The General Plan has a long-range vision that is supported by a spectrum of strategies and policies for dealing with the changing priorities and development pressures that the City will encounter through the coming years.[2]

The Housing Element of the General Plan has a separate planning horizon for 2023–2031; it was adopted by City Council on January 31, 2023.[3] The City received a comment letter regarding the Housing Element from the California Department of Housing and Community Development (HCD) on March 28, 2023, identifying revisions needed to the adopted Housing Element in order to comply with State Housing Element Law. The adopted Housing Element was subsequently reviewed to address HCD's comments; the revised Housing Element was released in May 2023 and adopted by City Council in June 2023. The revised Housing Element was submitted to HCD on August 22, 2023, for its 60-day review. On September 29, 2023, HCD provided preliminary feedback from its review of the re-adopted Housing Element and requested clarification on several topics. In response to that request, draft revisions to the re-adopted Housing Element were provided to HCD on October 13, 2023.

The Housing Element is an implementation mechanism for the City General Plan. It provides goals, policies, and programs for meeting the housing requirements mandated by the California Department of Housing and Community Development.

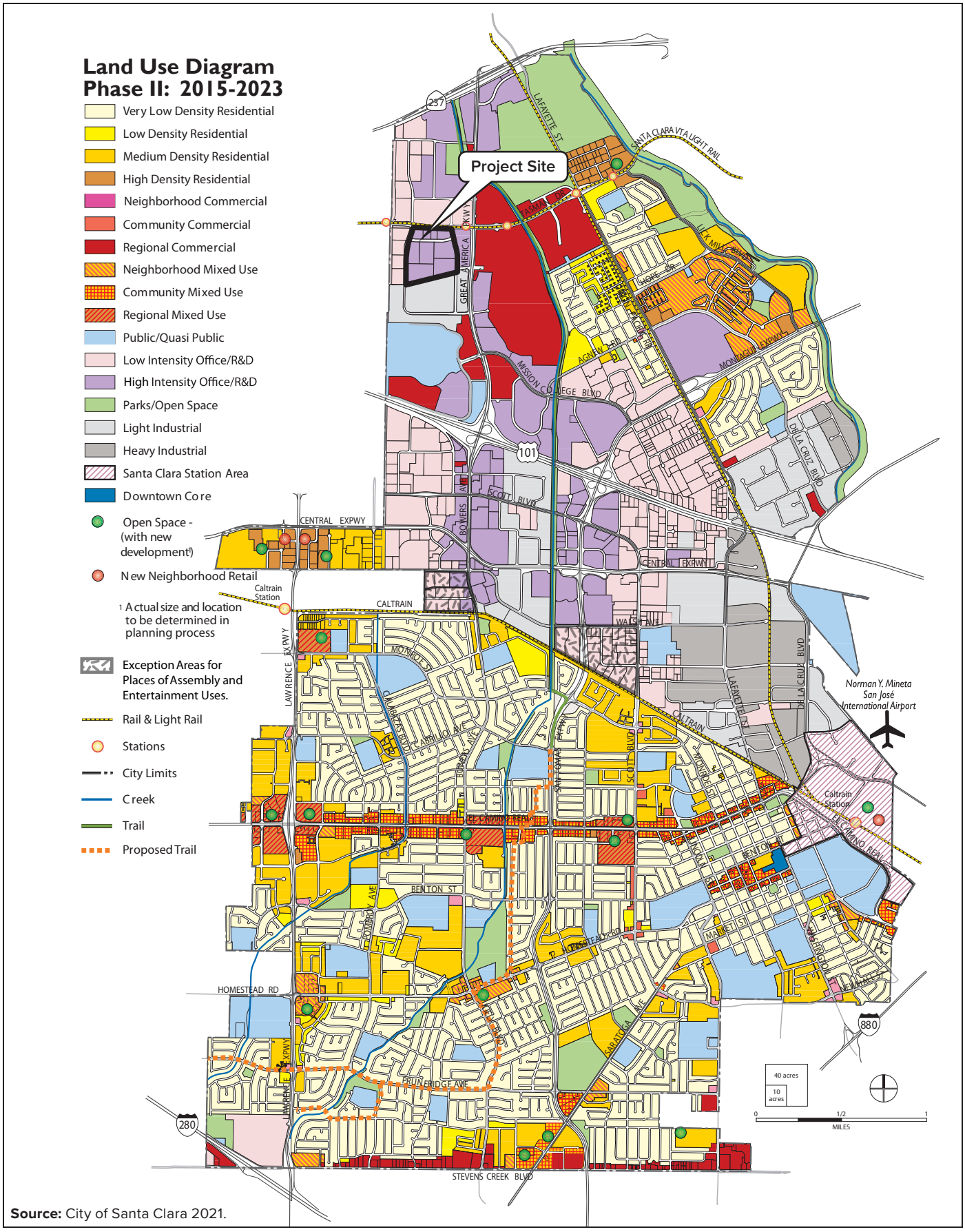
General Plan—Land Use Designations. The land use diagram in the General Plan depicts the land use pattern for future development in the City (Figures 3.1-1 and 3.1-2). The General Plan defines the land use classifications that are applied to every parcel in the City. Each land use classification includes allowed uses and the associated density and intensity standards. The boundaries of the land use designations on the land use diagram are depicted generally. The Project site is currently designated for High-Intensity Office/Research and Development (R&D) in the General Plan.

The High-Intensity Office/R&D land use designation is intended for high-rise or campus-like developments (e.g., corporate headquarters, R&D facilities, supporting uses with landscaped areas for employee activities). Permitted uses include offices and prototype R&D uses. Data centers under this designation are limited to those that serve the use onsite. Medical facilities, except pharmacies, are not allowed. In addition, manufacturing uses are limited to less than 10 percent of the building area. Accessory, or secondary, small-scale supporting retail uses that serve local employees and visitors are also permitted. Residential uses are not permitted. Parking is typically structured or below grade. The maximum floor area ratio (FAR) is 2.0, excluding any FAR devoted to supporting retail uses. Under the existing land use designation, the Project site could be developed with up to approximately 4.2 million gross square feet (gsf) of office/R&D space.

The Project site is included in General Plan Section 2.3.2 (Areas of Potential Development) and illustrated in Figure 2.3-1 as "Approved/Not Constructed, and Pending Project," a designation related to the then-approved Yahoo! Campus Planned Development Zoning and Development Agreement, which included 3 million gsf of office campus space. General Plan Appendix 8.6 (General Plan Land Use Assumptions), Section 8.6.2 (Proposed Development), and Table 8.6-2 (Proposed Development [Approved, Not Constructed and Pending Projects]), includes the Project site as High-Intensity

[2] Ibid.

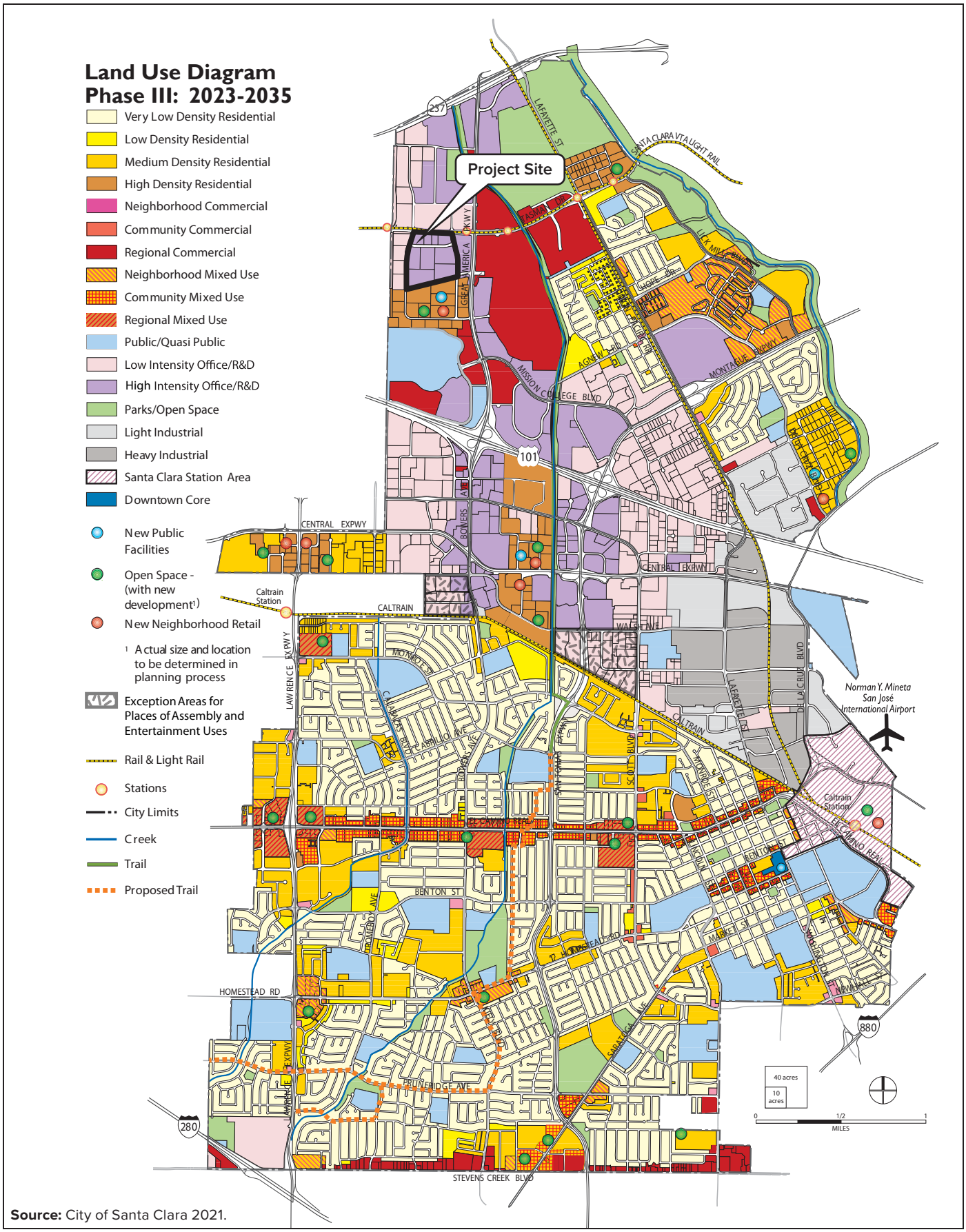
[3] City of Santa Clara. 2023. *Housing Element Update (2023–2031)*. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan/housing-element-update. Accessed: February 23, 2023.



Source: City of Santa Clara 2021.

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Figure 3.1-1
General Plan Land Use Diagram: Phase II (2015-2023)
Mission Point Project



Source: City of Santa Clara 2021.

Graphics ... 00333.14 (06-12-2023) JC

Figure 3.1-2
General Plan Land Use Diagram: Phase III (2023-2035)
Mission Point Project

Office/R&D, with 3 million square feet of new space.[4] General Plan Policy 5.3.1-P18, adopted to "meter" new industrial and commercial development, maintain the city's jobs/housing balance, and ensure adequate infrastructure and public services, excludes the approved, constructed, and pending projects in Figure 2.3-1 and Table 8.6-2, including the 3 million gsf of office/R&D space on the Project site.[5]

General Plan—Goals and Policies. The General Plan contains goals and policies related to Neighborhood Compatibility, Historic Preservation, Mobility and Transportation, Public Facilities and Services, Environmental Quality, and Sustainability.[6] Applicable land use goals and policies from these elements and chapters, including the Housing Element, are discussed under Impact LU-3, below. Table 3.1-3, presented later in this section, analyzes the Project's consistency with the applicable General Plan goals and policies that have been adopted to avoid or mitigate an environmental impact and describes the environmental effects or potential conflicts with the Project. In addition, although General Plan policy consistency determinations are made in this chapter, the applicable General Plan policies are also provided in the relevant sections of this Draft EIR.

As discussed in greater detail below in Table 3.1-3 and Impact LU-1, the General Plan contains several policies with the goal of maintaining an adequate balance of jobs to housing within the city. General Plan Policies 5.3.1-P18 and 5.10.2-P2 and Housing Element Policy B-5 promote more housing in the relatively job-rich Silicon Valley and strive to maintain the planned levels of commercial development. General Plan Policy 5.3.1-P18 calls for metering net new industrial and commercial development so as not to exceed development assumptions in order to maintain the city's jobs/housing balance. General Plan Policy 5.10.2-P2 encourages development patterns that reduce vehicle miles traveled (VMT) and air pollution. Finally, Housing Element Policy B-5 encourages development of mixed-use and high-density residential development in proximity to transit and other residential services. These General Plan policies have been adopted with the intent of avoiding or mitigating environmental impacts. As such, the Project's consistency with these policies is discussed in the context of the potential to result in physical impacts on the environment. These policies, among other things, strive to locate housing near available jobs, which inherently reduces VMT. Reductions in VMT are linked directly to improved air quality, reduced greenhouse gas (GHG) emissions, and less congestion when housing is located near jobs rather than farther away.

General Plan—Development Potential. The General Plan includes job and housing growth projections, as outlined in Table 3.1-1. These General Plan job and housing growth projection assumed 3 million gsf of High-Intensity Office/R&D development and no housing, retail, childcare, or public park or open space uses on the Project site. The jobs/housing ratio in 2008 (existing conditions at the time the General Plan was prepared) was 2.42, meaning there were 2.42 jobs in the City for every residential unit. As shown below, because residential development would keep pace with that of employment growth, the jobs/housing ratio is anticipated to improve between 2008 and 2035 (full build-out of the General Plan). By 2035, the General Plan projects that there will be one residential unit in the City for every 2.15 jobs.

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[4] Note General Plan table 8.6-2 contains a clerical error, listing an incorrect address for the Project Site of 4401 Great America Parkway (Yahoo) which refers to an existing office building that was leased to Yahoo! in 2010 and separately planned as part of the "Great America Office Expansion Project" located at 4301, 4401 and 4551 Great America Parkway, and which is listed separately on the table under the primary address: "4301 Great America Parkway."

[5] Note that Policy 5.3.1-P18 contained a clerical error (referring to Figure 2.1-1 instead of Figure 2.3-1), which was corrected in 2016 by Resolution 16-8338, Section 5.

[6] City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan*. Adopted: November 16, 2010. Last amended: December 9, 2014. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan. Accessed: October 14, 2022.

Table 3.1-1. Comparison of Number of Jobs to Housing in the City

	2008	2015	2035
Jobs	106,680	125,780	154,830
Housing	44,166	48,102	71,982[a]
Jobs/Housing Ratio	2.42	2.61	2.15

Source: City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan*. Adopted: November 16, 2010. Last amended: December 9, 2014. Available: http://santaclaraca.gov/index.aspx?page=1263. Accessed: October 28, 2022.

Notes:

a. The total amount of housing in 2035 includes the approximately 11,632 housing units proposed by 2031, in accordance with the 2023 Housing Element.

However, because the information for existing conditions provided in the General Plan is from 2010 and outdated, data from the U.S. Census Bureau were used to provide a more accurate depiction of the City's current jobs/housing ratio. Based on U.S. Census Bureau data, in 2020, the City had approximately 104,579 jobs and 44,198 households.[7] Therefore, in 2020, Santa Clara's jobs/housing ratio was 2.37, which is slightly lower than the jobs/housing ratio projections provided in the General Plan for 2015.

Santa Clara City Code (Title 18, Zoning Ordinance)

The zoning ordinance implements the land uses designated in the General Plan. Title 18 of the City Code, Section 18.02.020(a), was adopted as a precise zoning plan for the City and designed to:

> …encourage development of various kinds of living, working and commercial activities in specific areas as defined in general in the General Plan of the City and to segregate and protect the activities of these one from another.

The zoning ordinance defines the City's zoning districts and identifies the land uses permitted and conditionally permitted in each. It also establishes development regulations such as building height, building lot coverage, building setbacks, parking, and landscape requirements. The zoning ordinance was enacted, in part, to avoid or mitigate environmental impacts.

The City's zoning code currently designates the Project site as Light Industrial (ML), but under the City's pending zoning code update, the Project site is proposed to be rezoned to High-Intensity Office/R&D to be consistent with the existing General Plan land use designation. The ML district is intended to provide an optimum industrial environment and accommodate industries that operate primarily within an enclosed building. Permitted uses within the ML district include commercial storage and wholesale distribution warehouses; plants and facilities for the assembly, compounding, manufacture, packaging, processing, repairing, or treatment of equipment, materials, merchandise, or products; incidental retail sales of industrial products or products manufactured onsite if adequate customer parking is provided; incidental and accessory buildings, storage buildings, outdoor storage, warehouses, and exposed mechanical appurtenances; emergency shelters; and all uses permitted within the Planned Industrial (MP) zoning district. Conditional uses allowed in the ML district include retail and commercial service uses, outdoor storage activity or mechanical equipment involving more than 25 percent of the total lot area, kennels, and building materials yards, contractors' yards, feed and fuel yards, lumber yards, and public utility service yards if surrounded by solid board or masonry fencing at least 6 feet high.

[7] U.S. Census Bureau. 2020. *ACS 5-Year Estimates, 2016-2020—DP03: Selected Economic Characteristics, Santa Clara City, California*. Available: https://data.census.gov/table?g=1600000US0669084&tid=ACSDP1Y2021.DP03. Accessed: December 19, 2022.

Plan Bay Area

Senate Bill (SB) 375, adopted in 2008, requires preparation of a Sustainable Communities Strategy (SCS) as part of the Regional Transportation Plan (RTP) for the Bay Area. Plan Bay Area, the SCS for the region, and the 2050 RTP were jointly approved in October 2021 by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC).[8] The RTP/SCS represents a transportation and land use/housing strategy for how the Bay Area will address its transportation mobility and accessibility needs, land development, and GHG emissions reduction requirements through 2050.[9] The plan integrates transportation and land use strategies to manage GHG emissions and plan for future population growth. The RTP/SCS includes policies that call for shifting more travel demand to transit and accommodating growth along transit corridors in Priority Development Areas (PDAs).

In addition to land use and housing planning, Plan Bay Area also forecasts changes to the Bay Area population, including projected household and job growth. Although regional, county, and sub-county growth patterns and projections for households and jobs are available for Plan Bay Area 2050, city-level growth projections are not yet available.[10] Therefore, for purposes of this analysis, the 2040 projections from Plan Bay Area 2040 were used.

Table 3.1-2 illustrates the anticipated jobs and housing for the City as projected by ABAG and considered in Plan Bay Area. As shown, housing units are projected to increase by 11,155 between 2020 and 2040, while jobs in the City are expected to grow by 27,010 (more than double the housing growth) during that same period. According to ABAG's projections, the jobs/housing ratio worsens in 2030 compared to 2020 but improves by 2040. The Project site, based on the current General Plan designation of High-Intensity Office/R&D, was included in these projections and anticipated to contribute approximately 6,667 office/R&D employees,[11], with no retail, childcare, or housing or housing-related employees.[12]

[8] MTC is the government agency responsible for regional transportation planning, financing, and coordinating transportation services in the nine-county San Francisco Bay Area.

[9] The RTP/SCS was also accepted by the Air Resources Board for meeting the SB 375 targets for per capita GHG emissions reductions from vehicles.

[10] Association of Bay Area Governments. 2021. *Plan Bay Area 2050 Growth Patterns*. Available: https://www.planbayarea.org/digital-library/plan-bay-area-2050-final-blueprint-growth-pattern. Accessed: October 28, 2022.

[11] See Appendix 8.6 of the General Plan, which used a general assumption of one employee per 450 square feet for industrial/office/R&D. This EIR uses an updated employee generation rate of one employee per 250 square feet of office/R&D for CEQA purposes, but there is no unique or substantial difference in the nature of the office/R&D uses proposed as part of the Project compared to the allowed uses in the High Intensity Office/R&D land use designation in the General Plan. Therefore, to ensure a consistent comparison of the General Plan and population and housing assumptions, this Chapter 3.1, *Land Use and Planning* and Chapter 3.12, *Population and Housing,* analysis use the General Plan employee generation assumptions for the Project (i.e., 3,000,000 sf/450 sf per employee for industrial/office/R&D uses= 6,667 office/R&D employees). For all other environmental impact analysis outside the context of consistency with adopted land use policies, the updated employee generation rates is used.

[12] The General Plan Appendix 8.6 employment assumptions did not include separate categories for retail, childcare or multifamily workers, and also assumed a general vacancy rate of 6.5% for the purpose of calculating employee generation assumptions.

Table 3.1-2. Comparison of Number of Jobs to Housing in the City (Plan Bay Area)

	2020	2025	2030	2035	2040
Jobs	143,565	151,310	165,255	169,590	170,575
Housing	45,855	50,465	52,110	54,855	57,010
Jobs/Housing Ratio	3.13	3.00	3.17	3.09	2.99

Source: Association of Bay Area Governments. 2019. *Projections 2040*. May. Available: http://projections.planbayarea.org/#download. Accessed: October 28, 2022.

Plan Bay Area calls for focused housing and job growth around high-quality transit corridors, particularly within areas identified by local jurisdictions as PDAs, which are existing neighborhoods served by transit and supported by local plans (both existing and to-be-completed plans) to provide a wider range of housing options, along with amenities and services to meet the day-to-day needs of residents in a pedestrian-friendly environment. Many PDAs are also in Transit Priority Project–eligible areas,[13] and most of the Transit Priority Project–eligible land in the Bay Area is within PDAs. Although the Project site is not within a PDA, the southern edge of the Project site is immediately adjacent to the Patrick Henry Specific Plan area (described in more detail below), which has been identified as a PDA through Plan Bay Area 2050.[14] In addition, through Plan Bay Area, the Project site is entirely within a Transit Priority Area (TPA).[15] TPAs are areas within 0.5 mile of a major transit stop such as an existing or planned rail station or bus routes with headways of 15 minutes or better during morning and evening peak periods.

San José International Airport Comprehensive Land Use Plan

The Santa Clara County ALUC was established to provide appropriate development of areas surrounding public airports in Santa Clara County, including San José International Airport (SJC). An Airport Land Use Compatibility Plan (ALUCP) is intended to minimize the public's exposure to excessive noise and safety hazards and ensure that the approaches to the airports are kept clear of structures that could pose an aviation safety hazard. The ALUC has established provisions for the regulation of land use, building height, safety, and noise insulation within areas surrounding the airports to ensure that surrounding new land uses do not affect the airport's continued operation. Specifically, each CLUP seeks to protect the public from adverse effects of aircraft noise, ensure that people and facilities are not concentrated in areas that could be vulnerable to aircraft accidents, and ensure that no structures or activities adversely affect navigable airspace. Implementation of the CLUP is intended to prevent future incompatible development from encroaching on the airport and allow for its development in accordance with the current airport master plan. As depicted in Figures 3.1-3 through 3.1-5, the Project site is entirely outside the Airport

[13] Per Public Resources Code 21155 et seq., to quality as a transit priority project, a project must meet the following criteria: be consistent with the general use designation, density, and building intensity as well as applicable policies of the adopted RTP/SCS; have at least 50 percent residential use; have a FAR of 0.75 or more if the project has between 26 and 50 percent nonresidential uses; have a minimum net density of at least 20 dwelling units per acre; and be located within 0.5 mile of a major transit stop or high-quality transit corridor included in the RTP/SCS.

[14] Association of Bay Area Governments/Metropolitan Transportation Commission. 2020. *Priority Development Area (Plan Bay Area 2050*). Available: https://opendata.mtc.ca.gov/maps/4df9cb38d77346a289252ced4ffa0ca0. Accessed: October 28, 2022.

[15] Association of Bay Area Governments/Metropolitan Transportation Commission. 2021. *Transit Priority Areas (2021*). Available: https://opendata.mtc.ca.gov/datasets/370de9dc4d65402d992a769bf6ac8ef5_1/explore?location=37.398022%2C-121.973772%2C14.91. Accessed: October 31, 2022.

Influence Area (AIA) for SJC; however, the applicable Part 77 notification requirements are discussed in more detail under Impact LU-3, below.

Environmental Setting

Demographic Overview

The California Department of Finance estimated the City's population to be approximately 130,127 as of January 2022.[16] The estimated number of households in the City was approximately 52,000, with an average household size of about 2.61 persons per household. The City had a housing unit vacancy rate of approximately 6.9 percent in January 2022.

Adjacent Uses

The City encompasses an area of approximately 18 square miles. It is located in the northwestern portion of Santa Clara County and bounded by San José to the north, east, and south and Sunnyvale and Cupertino to the west. The City is almost entirely urbanized, with the exception of areas that have been designated for open space. Residential and commercial uses are located primarily in the southern portion of the City, while industrial uses and office parks exist primarily in the northern portion of the City.

The City includes developed land uses such as residential, commercial, industrial, recreational, public, institutional, airport, utility, and transportation uses. Existing neighborhoods are primarily single-family residential and often separated by major regional roadways and/or commercial thoroughfares. Along commercial corridors, existing shopping centers are focused on streets with minimal connections to the neighborhoods they serve. The industrial/office employment center uses are largely separated by major transportation facilities. The Project site is located along the Great America Parkway corridor and bounded by Tasman Drive to the north, Old Ironsides Drive to the east, an existing public right-of-way (ROW) associated with the Hetch Hetchy aqueduct to the south, and Patrick Henry Drive to the west.

Project Vicinity

Existing development adjacent to the Project site includes mostly low-intensity office/R&D uses within areas zoned for light industrial and planned development. Businesses within the immediate vicinity of the Project site include Citrix, Silicon Valley Bank, Fabrinet West, PetaIO, Banpil Photonics, and National Instruments, among other companies, which are housed in office or industrial buildings that range from small single-story office buildings to mid-rise, multi-story buildings. San Francisco Bay is approximately 1 mile north of the Project site; California's Great America Amusement Park and Levi's Stadium are approximately 0.3 and 0.45 mile east of the Project site, respectively; the Santa Clara Convention Center (Convention Center) is approximately 0.18 mile northeast of the Project site; and the Hilton Santa Clara Hotel is approximately 0.17 mile east of the Project site, across Great America Parkway. In addition, the nearest existing residential uses are approximately 0.14 mile west of the Project site, across Calabazas Creek and within Sunnyvale city limits. Additional residential uses are approximately 0.6 mile east of the Project site and adjacent to California's Great America Amusement Park within Santa Clara city limits.

Immediately south of the Project site, existing low-intensity office/R&D and light industrial uses are zoned for planned development. This area, referred to as the Patrick Henry Specific Plan area, is bounded by the

[16] California Department of Finance. 2022. *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020–2022*. Available: https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2022/. Accessed: October 28, 2022.

Hetch Hetchy ROW to the north, Great America Parkway to the east, Calabazas Creek Trail to the west, and Mission College Boulevard to the south. The Patrick Henry Specific Plan was recently approved to convert industrial uses to high-density residential and/or office uses.[17] In total, build-out of the specific plan would include either a residential emphasis with up to 12,000 residential units and 310,000 gsf of non-residential uses or a more office-focused project with 10,300 residential units, 785,000 gsf of office uses, and 310,000 gsf of non-residential units. The specific plan would be built out in phases, with full occupancy and build-out assumed, for planning purposes, in 2035.[18]

Regional access to the Project site includes State Route (SR) 237 to the north and US 101 approximately 1 mile to the south. The Santa Clara Valley Transportation Authority (VTA) operates a light rail service with numerous stops near the Project site along Tasman Drive, including Old Ironsides Station (less than 500 feet away), Reamwood Station (less than 1,000 feet away), and Great America Station (approximately 0.3 mile away). In addition, Amtrak's Capitol Corridor and Altamont Corridor Express operate along the Union Pacific Railroad (UPRR) ROW and provide service to the Project area from Great America Station, located at Lafayette Street and Tasman Drive, approximately 1 mile from the Project site. Further, existing bicycle and pedestrian access to the Project site is provided by the off-road Calabazas Creek Trail, which connects to Tasman Drive, approximately 0.1 mile west of the site; a Class II bicycle lane along Great America Parkway, approximately 0.1 mile east of the site; and San Tomas Aquino Creek Trail, approximately 0.4 mile east of the site.

Project Site

As described in Chapter 2, *Project Description*, the Project site is located on nine parcels (assessor's parcel numbers [APNs] 104-04-150, 104-04-142, 104-04-143, 104-04-151, 104-04-112, 104-04-113, 104-04-065, 104-04-111, 104-04-064), totaling 46.01 acres, as well as Democracy Way, a privately owned street subject to an existing public ROW easement that covers approximately 2.6 acres, for a combined total Project area of 48.6 acres. The Project site is currently occupied by four light industrial buildings, totaling 142,050 gsf, on the northern portion of the site; the buildings were constructed in the late 1970s. A paved surface parking lot with approximately 5,081 parking spaces is located south of Democracy Way. The Project Sponsor is currently using one of the light industrial buildings on the Project site; the other buildings are currently vacant. The current primary use of the Project site is temporary parking for Levi's Stadium, which is approximately 0.3 mile east of the Project site; the site provides 3,300 parking spaces. The remaining parking spaces are used by Amazon as a drivers' training ground. Prior to being used as a temporary parking lot, the site had six single-story office and industrial buildings. The previous owner demolished the buildings to prepare the site for redevelopment (former planned Yahoo! campus).

Figure 2-2 in Chapter 2, *Project Description*, depicts the existing uses on and adjacent to the Project site. As mentioned above, the Project site is designated in the City General Plan as High-Intensity Office/R&D. The City's zoning code currently designates the Project site as ML, but the site is proposed to be rezoned to High-Intensity Office/R&D to be consistent with the existing General Plan as part of the City's pending zoning code update. Under these existing land use designations, the Project site could be developed with up to approximately 4.2 million gsf of office/R&D space. Residential uses are not currently permitted or contemplated by the pending zoning code update.

[17] City of Santa Clara. 2022. *Patrick Henry Drive Specific Plan.* Available: https://www.santaclaraca.gov/home/showpublisheddocument/72222/637921162111370000. Accessed: October 31, 2022.

[18] City of Santa Clara. 2021. *Patrick Henry Drive Environmental Impact Report*. Available: https://www.santaclaraca.gov/home/showpublisheddocument/74663/637631533575670000. Accessed: October 31, 2022.

Environmental Impacts

This section describes the impact analysis related to land use for the Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

Thresholds of Significance

The Project would have a significant effect if it would result in any of the conditions listed below.

- Physically divide an established community (LU-1)
- Result in a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect (LU-2, LU-3, LU-4, and C-LU-1)

Methods for Analysis

CEQA requires an EIR to consider whether a proposed project would conflict with an applicable land use plan, policy, or regulation that was adopted for the purpose of avoiding or mitigating an environmental impact. This environmental determination differs from the larger policy determination of whether a proposed project is consistent with a jurisdiction's general plan. The former determination, which is intended for consideration in a CEQA document, is based on, and limited to, a review and analysis of environmental effects. The latter determination, by comparison, is made by the decision-making body of the jurisdiction and based on the jurisdiction's broad discretion with respect to assessing whether a proposed project would conform to the policies and objectives of its general plan/specific plan as a whole. In addition, the broader general plan consistency determination takes into account all evidence in the record concerning project characteristics, desirability, as well as its economic, social, and other non-environmental effects.

Project conflicts with land use policies do not, in and of themselves, constitute significant environmental impacts. Policy conflicts are considered environmental impacts only when the policies themselves were adopted for the purpose of avoiding or mitigating an environmental effect. Such conflicts constitute *significant* environmental impacts only when the resulting direct environmental effects are significant. Decision-makers (the City Council, in this case) will need to consider the consistency of the proposed development with plans and policies that do not directly relate to physical environmental issues when determining whether to approve or deny the Project.[19]

The consistency of the Project with Plan Bay Area 2050, VTA's Congestion Management Program, VTA's Transit Service Guidelines, VTA's Recommended 2023 Transit Service Plan, the City's 2018 Bicycle Master Plan Update, and the City's 2019 Pedestrian Master Plan are addressed in Section 3.2, *Transportation*. In addition, consistency with the City's Climate Action Plan (CAP) is addressed in Section 3.4, *Greenhouse Gas Emissions*.

[19] As described above, for the purposes of land use consistency (as opposed to environmental effects analyzed in other chapters of this EIR), the General Plan employee generation rate of one employee per 450 gsf is used instead of the Keyser Marsten rate of one employee per 250 gsf used in other sections in order to provide a to allow meaningful an "apples to apples" comparison between the General Plan employment projections and those of the Project.

Topics Found to Have No Impact

Physical Division of an Established Community (LU-1). Physically disrupting or dividing an established community generally refers to construction of a physical feature or removal of a means of access that impairs mobility within an existing community or between a community and outlying areas. There are no established residential communities on the Project site, which is currently occupied by four light industrial buildings on the northern portion of the site and a large paved surface parking lot on the southern portion of the site. Although Democracy Way would be vacated, as described in Chapter 2, the Project would not block any existing roads or sever connections between adjacent properties because it would incorporate extensive new vehicular, bicycle, and pedestrian access roads and circulation routes within the Project site to maintain access between sites. Furthermore, the Project's planned office/R&D and retail uses, as discussed below, would be compatible with existing adjacent properties, such as Levi's Stadium, the Hilton Santa Clara Hotel, Convention Center, and California's Great America Amusement Park. Although retail centers are not prominent land uses in the area, this component of the Project would complement and integrate the surrounding office, R&D, and commercial uses, creating a cohesive urban center while adding new residential uses adjacent to the Patrick Henry Specific Plan area. Thus, the Project would not physically divide or disrupt an established community and would not reduce access for adjacent properties, resulting in ***no impact***.

Conflicts with Adopted City Land Use Plans and Policies Regarding the Jobs/Housing Balance (LU-2). As described in Table 3.1-3, the Project would be consistent with all applicable General Plan policies, with the exception of the need to amend the existing High-Density Office/R&D land use designation to consolidate the existing planned amount of new office/R&D space (3 million gsf) on a smaller area of the Project site and allow up to 1,800 new multi-family residential units, new park and open space, new neighborhood-serving retail, a new substation, and other project amenities.

Construction

Conflicts with City General Plan policies aimed at improving the City's jobs/housing balance would not occur during construction of the Project because no permanent jobs or residences would be added during this phase. Therefore, there would be ***no impact*** during construction.

Operation

As discussed above, the goal of General Plan Policies 5.3.1-P18 and 5.10.2-P2 and Housing Element Policy B-5 is, in part, to reduce environmental impacts by promoting a balanced jobs/housing ratio. These City policies achieve this goal by encouraging the construction of more housing in the relatively job-rich Silicon Valley, thereby helping to reduce long-distance commutes by employees to the Silicon Valley. In turn, reducing commute distances would reduce associated criteria pollutant and GHG emissions as well as VMT. The following analysis considers the Project's employment growth in relation to City General Plan projections. The analysis presents impacts with full build-out of the Project (i.e., 4,913,800 gsf of total development, including up to 1,800,000 gsf of residential uses, or 1,800 units; 3 million gsf of office/R&D uses; 100,000 gsf of retail uses; 10,000 gsf of childcare uses; 3,000 gsf of community amenity space). However, as discussed above, 3 million gsf of office/R&D space was previously evaluated as part of the Yahoo! Campus Planned Development Zoning and Development Agreement and included as part of the General Plan projections. Therefore, the impact analysis considers only the employment growth that was not previously considered as part of the General Plan projections and would result from the proposed retail, childcare, community amenity, and residential uses of the Project. The impact analysis also discusses the consistency of the Project with Plan Bay Area.

General Plan. Upon full build-out, the Project would result in an additional 491 neighborhood retail employees, 35 childcare employees, and 38 multi-family employees, for a total of 564 employees, and up to 1,800 new residential units, or approximately 3,870 residents, that were not accounted for as part of the General Plan projections but would improve the jobs/housing balance. Upon build-out of the Project, the jobs/housing ratio would decrease from 2.15 (without Project) to 2.11 (with Project) in 2035[20] compared to 2.42 in 2008.

Plan Bay Area. Using the forecasts prepared by ABAG which are based on the City's General Plan, Plan Bay Area projects in the city would have 57,010 housing units and 170,575 jobs in 2040, for a jobs/housing ratio of 2.99 (as illustrated in Tables 3.1-2). Similar to the General Plan, 3 million gsf of office/R&D growth associated specifically with the Project was accounted for in the ABAG projections, while retail, childcare, community amenity, and residential uses were not.[21] However, similar to the General Plan, upon full build-out, the Project would decrease the jobs/housing ratio assumed in Plan Bay Area from 2.99 (without Project) to 2.91 (with Project) in 2040 compared to 3.13 in 2020.

Jobs/Housing General Plan Policy Consistency

General Plan Policies 5.3.1-P18 and 5.10.2-P2 and Housing Element Policy B-5 would be achieved by promoting more housing in the relatively job-rich Silicon Valley and maintaining the planned levels of commercial development. Adherence to these policies would ultimately avoid increases in long-distance commutes by employees to Silicon Valley as well as associated VMT.

Under existing land use and zoning designations, the Project site could be developed with up to approximately 4.2 million gsf of office/R&D space. The Project would include less office/R&D space (3 million gsf) as well as uses not specifically identified in the General Plan, including residential, retail, childcare, and community uses, resulting in an improved jobs/housing balance, particularly with the addition of the approximately 1,800 residential units that would be provided as part of the Project. Therefore, there would be ***no impact***.

Plan Bay Area Consistency

Plan Bay Area (consistent with SB 375) provides incentives for local governments by enabling streamlined CEQA review of GHG impacts for certain qualifying "transit priority projects" and other residential or mixed-used projects (i.e., where at least 75 percent of the total square footage of a project consists of residential use) that are consistent with Plan Bay Area, as the approved SCS.[22] As such, the Project's degree of consistency with Plan Bay Area is discussed in this EIR for informational purposes only.

As discussed in the *Regulatory Setting* section, Plan Bay Area 2050 promotes compact mixed-use infill development within bikeable/walkable neighborhoods that are close to public transit, jobs, schools, shopping, parks, recreation, and other amenities to reduce GHG emissions and adverse health impacts. It also promotes increases in housing opportunities, employment opportunities, access to affordable housing, and non-automotive mode share and improvements in the effectiveness of the transportation

[20] The total amount of housing in 2035 includes the approximately 11,632 housing units proposed by 2031, in accordance with the 2023 Housing Element, and 1,800 residential units proposed as part of the Project.

[21] As noted above, Plan Bay Area 2050 city-level growth projections are not yet available. Therefore, for purposes of this analysis, the 2040 projections from Plan Bay Area 2040 were used.

[22] Public Resources Code Section 21155 (defining a "transit priority project" as a project that contains at least 50 percent residential use and a minimum net density of at least 20 dwelling units per acre that is within 0.5 mile of a major transit stop or high-quality transit corridor); id. Section 21159.28 (providing certain exemptions from the need to evaluate project or cumulative impacts on global warming due to car and light-duty vehicle trips generated by the project).

system, with the focus of development within the existing urban footprint. Plan Bay Area 2050 also promotes reductions in GHG emissions through the identification of PDAs or TPAs, which are areas within 0.5 mile of a major transit stop, such as an existing or planned rail station or bus routes with headways of 15 minutes or better during morning and evening peak periods. As stated, the Project site is adjacent to the Patrick Henry PDA; the entirety of the Project site is within a TPA.[23] Because the Project would encourage development to be concentrated within a TPA, it would be consistent with the general policy direction of Plan Bay Area 2050.

The Project would also be consistent with the key objectives of Plan Bay Area 2050, including the goal of fostering infill development and jobs in proximity to transit to reduce VMT and GHG emissions. Furthermore, the Project would be located on infill sites within an urbanized area. It would focus growth on an area adjacent to a transit corridor and Patrick Henry PDA. The Project would also provide pedestrian- and bicycle-friendly streets within the Project site. The proposed land use classifications would provide for compact job- and resident-generating development close to transit. The Project would provide for a slight increase in the number of jobs planned for the Project site (i.e., 564 employees) served by regional transit stations (e.g., for VTA light rail, Amtrak's Capital Corridor, Altamont Corridor Express), with a configuration that would be designed to reduce reliance on automobiles. These features of the Project would be consistent with the goals of Plan Bay Area 2050.

Because build-out of the Project would maintain the same amount of office/R&D space planned for in the City's General Plan and Plan Bay Area while adding up to 1,800 new residential units not yet accounted for in the City's plans, it would further the balanced growth objectives of Plan Bay Area and be consistent with a number of important aspects of Plan Bay Area related to locating new development in infill areas near transit. Therefore, there would be ***no impact***.

Impacts and Mitigation Measures

Impact LU-3: Conflicts with Airport Land Use Plan. The Project would not result in a significant environmental impact due to a conflict with the Comprehensive Land Use Plan for San José International Airport. (Less than Significant)

Construction

Conflicts with the CLUP for SJC would not occur during construction of the Project because no permanent structures would be constructed during this phase. Therefore, there would be ***no impact*** during construction.

Operation

As discussed above in the *Regulatory Setting* section, the CLUP outlines the types of land uses that are compatible in the vicinity of SJC. As depicted in Figures 3.1-3 and 3.1-4, the Project site is adjacent to but outside the AIA,[24] CLUP safety zones,[25] and noise contours. The Project site falls within the maximum structure height contour range of 350 to 380 feet above ground level, per SJC's Federal Aviation Regulation Part 77, Surfaces Map, as shown in Figure 3.1-5.

[23] Association of Bay Area Governments/Metropolitan Transportation Commission. 2021. *Transit Priority Areas (2021*). Available: https://opendata.mtc.ca.gov/datasets/370de9dc4d65402d992a769bf6ac8ef5_1/explore?location=37.398022%2C-121.973772%2C14.91. Accessed: October 31, 2022.

[24] The AIA is the area surrounding the airport affected by noise, height, and safety considerations.

[25] The Project site is more than 1 mile outside of the airport safety zone; therefore, a figure is not included.

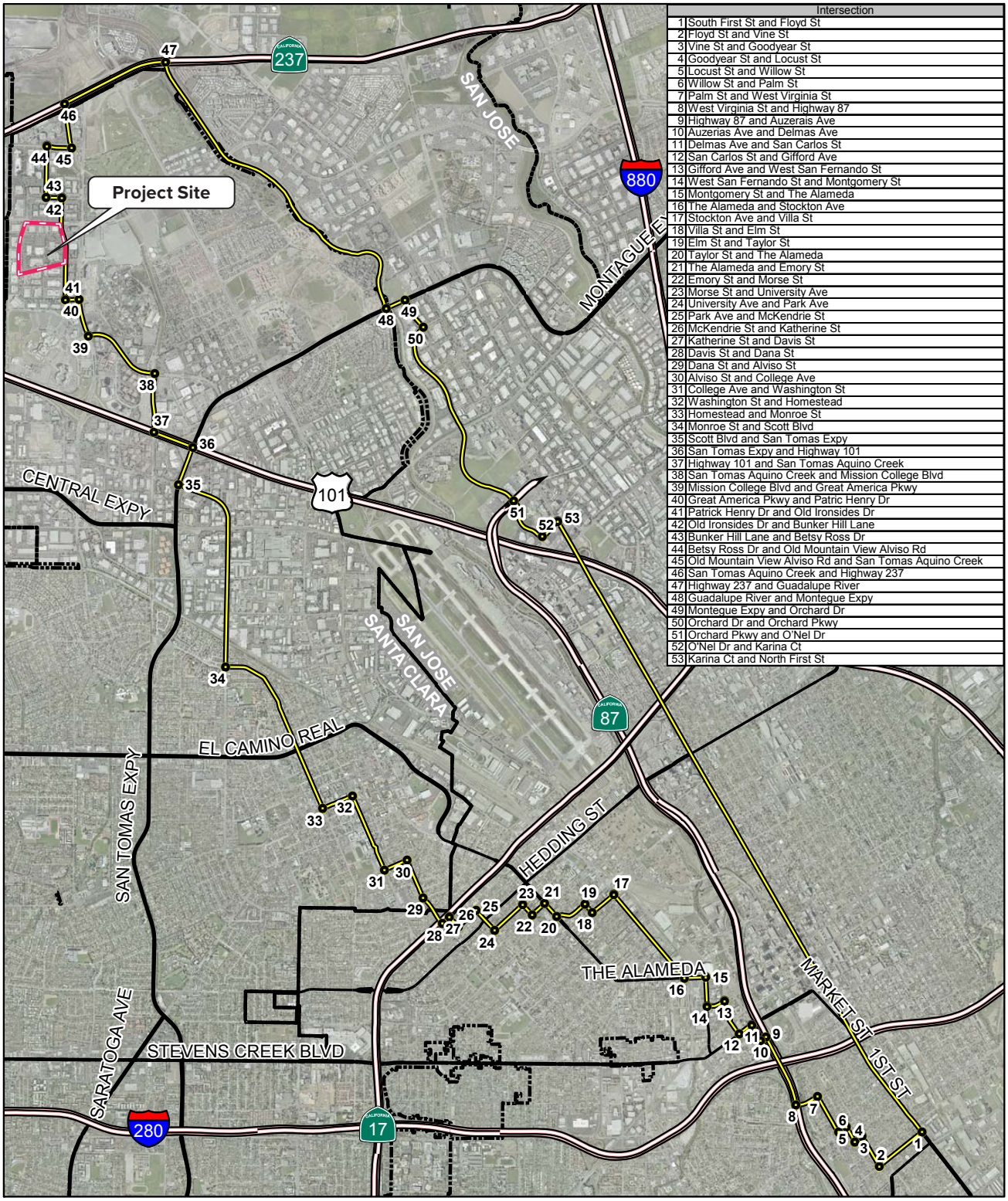
The determination of Project consistency with the CLUP considers issues such as general compatibility, safety, height, and noise. In addition to the below discussion, Table 3.1-3, at the end of this section, describes general consistency with each of the relevant CLUP policies.

Safety. Airport safety zones are established to minimize the number of people exposed to potential aircraft accidents in the vicinity of an airport by imposing density and use limitations within these zones. No portion of the Project site falls within airport safety zones, as designated under the SJC CLUP. Therefore, none of the safety policies contained within the CLUP are applicable to the Project, and they are not discussed further.

Height Limitations. As noted above and depicted in Figure 3.1-5, the Project area falls within a contour range of 350 to 380 feet above ground level, per SJC's Federal Aviation Regulation Part 77, Surfaces Map. Federal Aviation Regulation Part 77, Objects Affecting Navigable Airspace, establishes imaginary surfaces[26] for airports and runways as a means of identifying areas of airspace wherein objects would be obstructions to air navigation. Each surface is defined as a slope ratio or a certain altitude above the airport elevation. Specifically, there is a contour to establish a limit of 350 feet above mean sea level for the southern portion of the Project site and a contour to establish a limit of 380 feet for the northern portion of the Project site. As such, development within the Project area would be subject to certain height limitations pursuant to Federal Aviation Administration (FAA) Part 77 notification requirements, which require consultation with the FAA prior to construction of any structure or object within Federal Aviation Regulation Part 77 surfaces. This includes determining the need to file form 7460-I, Notice of Proposed Construction or Alteration, with the FAA for any project that would exceed FAA notification heights, as shown in Figure 3.1-5, and complying with FAA Aeronautical Study Findings. With the 7460-I filing, the FAA then undertakes an aeronautical study of the project and determines whether to make a "Determination of No Hazard" or a "Determination of Hazard." A Determination of Hazard is made when a project would obstruct air navigation, resulting in a substantial aeronautical impact.

The maximum heights of new buildings within the Project area would comply with the height regulations and restrictions established by the FAA; applicable maximum height requirements would vary across the Project area, up to a maximum of approximately 202 feet above the existing grade. Compliance with FAA regulations would ensure that the Project would not introduce new buildings that would exceed applicable FAA Part 77 height limits. Therefore, development of the Project would be consistent with height clearances established in the FAA.

[26] "Imaginary surfaces" exist primarily to prevent existing or proposed human-made objects, natural growth, or terrain from extending upward into navigable airspace. Five imaginary surfaces are used for the purpose of determining obstructions to air navigation: primary surface, horizontal surface, conical surface, transitional surface, and approach surface. These imaginary surfaces either slope out and up from all sides and ends of runways or are a horizontal plane or sloping place above airports.



	Intersection
1	South First St and Floyd St
2	Floyd St and Vine St
3	Vine St and Goodyear St
4	Goodyear St and Locust St
5	Locust St and Willow St
6	Willow St and Palm St
7	Palm St and West Virginia St
8	West Virginia St and Highway 87
9	Highway 87 and Auzerais Ave
10	Auzerias Ave and Delmas Ave
11	Delmas Ave and San Carlos St
12	San Carlos St and Gifford Ave
13	Gifford Ave and West San Fernando St
14	West San Fernando St and Montgomery St
15	Montgomery St and The Alameda
16	The Alameda and Stockton Ave
17	Stockton Ave and Villa St
18	Villa St and Elm St
19	Elm St and Taylor St
20	Taylor St and The Alameda
21	The Alameda and Emory St
22	Emory St and Morse St
23	Morse St and University Ave
24	University Ave and Park Ave
25	Park Ave and McKendrie St
26	McKendrie St and Katherine St
27	Katherine St and Davis St
28	Davis St and Dana St
29	Dana St and Alviso St
30	Alviso St and College Ave
31	College Ave and Washington St
32	Washington St and Homestead
33	Homestead and Monroe St
34	Monroe St and Scott Blvd
35	Scott Blvd and San Tomas Expy
36	San Tomas Expy and Highway 101
37	Highway 101 and San Tomas Aquino Creek
38	San Tomas Aquino Creek and Mission College Blvd
39	Mission College Blvd and Great America Pkwy
40	Great America Pkwy and Patric Henry Dr
41	Patrick Henry Dr and Old Ironsides Dr
42	Old Ironsides Dr and Bunker Hill Lane
43	Bunker Hill Lane and Betsy Ross Dr
44	Betsy Ross Dr and Old Mountain View Alviso Rd
45	Old Mountain View Alviso Rd and San Tomas Aquino Creek
46	San Tomas Aquino Creek and Highway 237
47	Highway 237 and Guadalupe River
48	Guadalupe River and Montegue Expy
49	Montegue Expy and Orchard Dr
50	Orchard Dr and Orchard Pkwy
51	Orchard Pkwy and O'Nel Dr
52	O'Nel Dr and Karina Ct
53	Karina Ct and North First St

Source: Santa Clara County Airport Land Use Commission, 2016

SJ_AIA_intersections

AIA

Feet

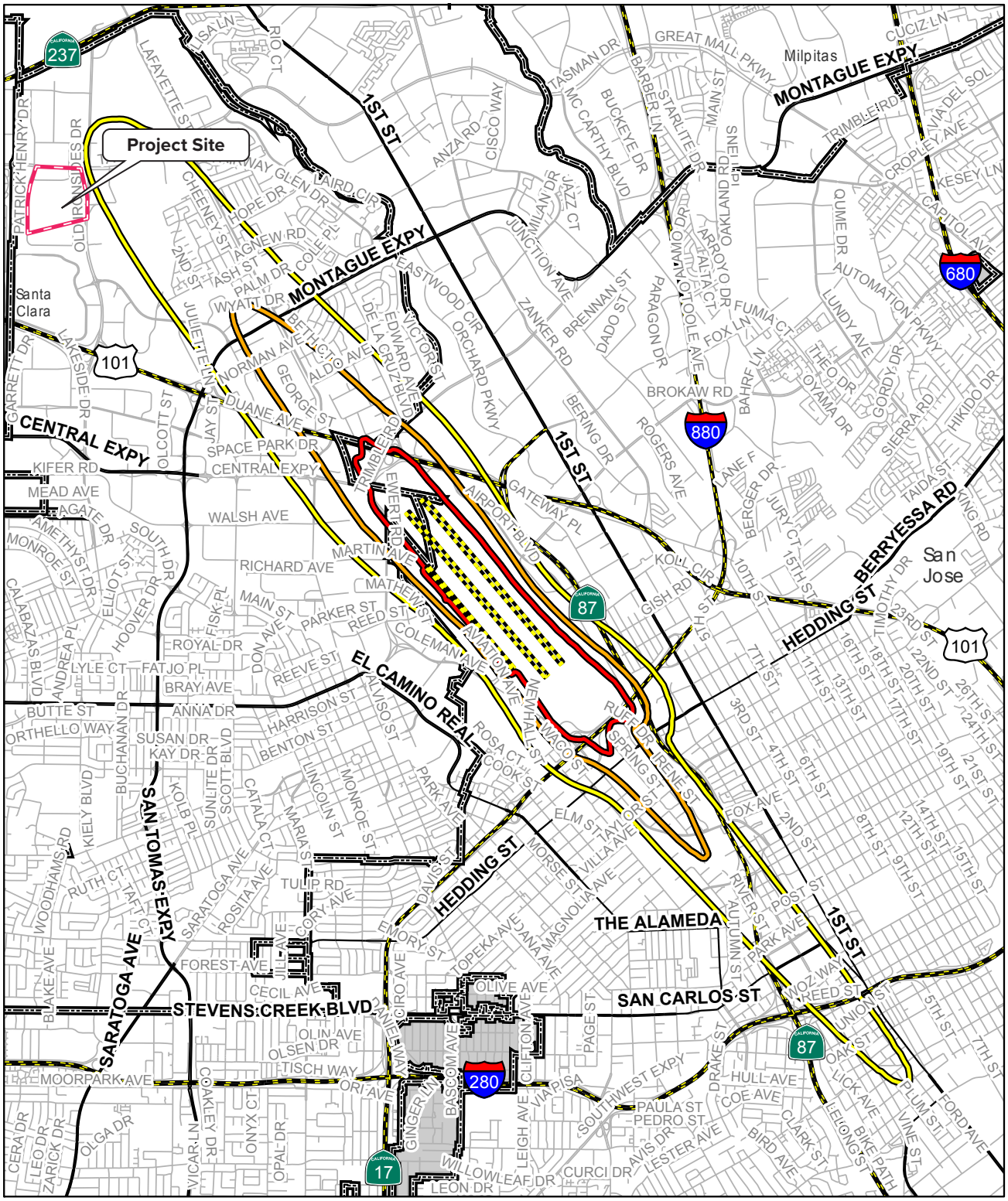
0 2,000 4,000 8,000

N

This map created by Santa Clara County Planning Office. The GIS data was compiled from various sources. While deemed reliable, the Planning Office assumes no liability.
4/8/2008 - Y:\Matt\ALUC\projects\SJIS\J_figure8_aia_v2.mxd

ICF Graphics - 00218.18 (06-16-2023) JC

Figure 3.1-3
Airport Influence Area
Mission Point Project



Source: Santa Clara County Airport Land Use Commission, 2016

Runway
65
70
75
City Limits
Unincorporated_Areas

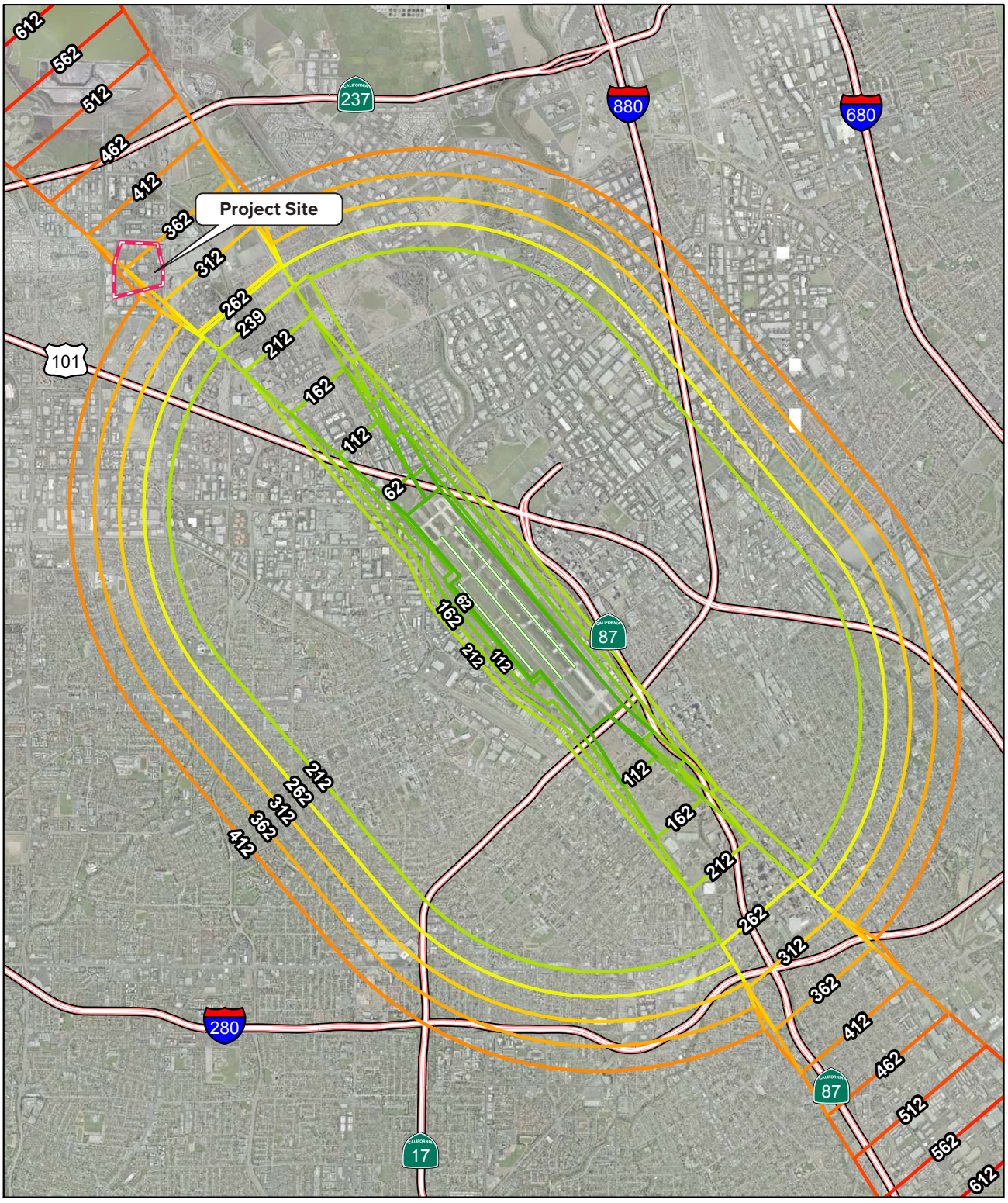
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This map created by Santa Clara County Planning Office. The GIS data was compiled from various sources. While deemed reliable, the Planning Office assumes no liability.
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ICF Graphics - 00218.18 (06-16-2023) JC

Figure 3.1-4
2022 Aircraft Noise Contours
Mission Point Project



Source: Santa Clara County Airport Land Use Commission, 2016

ICF Graphics - 00218.18 (06-16-2023) JC

Figure 3.1-5
FAR Part 77 Surfaces
Mission Point Project

Noise. CLUP noise contours use the Community Noise Equivalent Level (CNEL) to depict noise disruptions from aviation, with a penalty added at night when aviation noise could affect onsite residents the most. The CLUP uses 65, 70, and 75 A-weighted decibel (dBA)[27] CNEL noise contours and includes different types of noise mitigation, based on the type of use exposed to aviation noise. As noted above and shown in Figure 3.1-4, no portion of the Project site falls within the noise contours designated under the SJC CLUP. Therefore, none of the noise policies contained within the CLUP are applicable to the Project, and they are not discussed further. Nonetheless, Section 3.6, *Noise,* of this EIR includes a detailed analysis of the Project's consistency with SJC CLUP noise policies.

Given the Project would fall outside any potentially applicable CLUP and be required to file all required Federal Aviation Regulation Part 77 notification requirements as a standard condition of approval, the Project would result in a ***less-than-significant*** with respect to CLUP policies. No mitigation is required.

Impact LU-4: Conflicts with Other Adopted City Land Use Plans and Policies. The Project would not result in a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. (Less than Significant)

Construction and Operation

Land Use Designations. As shown in Figures 3.1-1 and 3.1-2, the Project site is currently designated for High-Intensity Office/R&D uses. The existing General Plan would maintain these designations for the Project site through the current 2035 planning horizon of the General Plan. The High-Intensity Office/R&D designation has a maximum FAR of 2.0, excluding any FAR devoted to supporting retail uses. The Project would include office/R&D buildings, neighborhood retail uses, residential units, childcare facilities, community space, open spaces, new roadways and access points, and parking facilities (surface and structure). Therefore, the Project would not be consistent with the existing land use designation. Inconsistency with land use designations does not, by itself, constitute a significant environmental impact because the land use designations were not enacted to mitigate or lessen environmental effects as a primary objective.

In order to accommodate high-intensity, urban-oriented development, a new General Plan land use classification (Urban Center Mixed Use) is proposed within the Mixed-Use category. The following language, which is proposed to be incorporated into the General Plan, outlines the allowed uses for the recommended land use classification (Urban Center Mixed Use):

> The Urban Center Mixed Use designation is intended for pedestrian-oriented, high-intensity and very high-density mixed-use development in a transit-rich area. It permits high-rise commercial office and residential development (in either mixed-use or stand-alone buildings), subject to Federal Aviation Administration height restrictions; ground-level neighborhood-serving retail; and landscaped areas for employee and resident activities. Permitted uses include multi-family residential and co-living, office and R&D uses, light manufacturing, and neighborhood-supporting retail and services that serve local employees, residents, and visitors. Parking is typically structured or below grade. The minimum FAR is 1.5, and the residential maximum density is up to 250 dwelling units per acre.

The proposed General Plan amendment, including the land use classification described above, would meet the intent of the land use policies, as described in detail below and in Table 3.1-3. Because of general

[27] The standard unit of sound amplitude is the decibel (dB). The A-weighted decibel scale (dBA) modifies the dB level to approximate the frequencies heard by a human ear.

consistency with land use policies, any potential conflicts with the General Plan related to the new land use classification would be ***less than significant***.

Goals and Policies. Table 3.1-3, presented later in this section, outlines the General Plan goals and policies that have been identified as (1) applicable to the Project and (2) adopted for the purpose of avoiding or mitigating an environmental effect, then describes environmental effects and potential incompatibilities. In Table 3.1-3, a determination of "Consistent" or "Inconsistent" has been provided for each policy. The determination of whether the Project would conflict with applicable policies is based on the environmental analysis provided in the applicable resource sections of this Draft EIR. Table 3.1-3 describes the general consistency with each of the relevant General Plan elements. Although the table shows some minor inconsistencies with the General Plan, the ultimate determinations of General Plan consistency can and will be made by City Council.

The Project would generally be consistent with applicable goals, policies, and actions, resulting in a ***less-than-significant impact***.

Cumulative Impacts

Because land use policies are regional in scope, the geographic context for cumulative impacts associated with land use issues is broader than just the City and includes regional growth projected by ABAG.[28] Past, present, and future cumulative development within this geographic context assumes full build-out of the general plans of the nine ABAG counties and associated cities as well as the development envisioned in the Goals and Policies chapter of the City General Plan as well as the projects identified in Chapter 3, *Environmental Impact Analysis*.

Cumulative impacts are addressed only for those thresholds that would result in a Project-related impact, whether it be less than significant, significant, or significant and unavoidable. If a Project would result in no impact with respect to a particular threshold, it would not contribute to a cumulative impact. Therefore, no analysis would be required.

The Project would have no impact related to physical division of an established community or conflicts with a land use plan, policy, or regulation regarding jobs/housing balance; thus, it would not contribute to a cumulative impact. Further analysis is not required. The cumulative analysis examines the effects of the Project in the relevant geographic area in combination with those of other current projects, probable future projects, and projected future growth. Physical environmental impacts from conflicts with the CLUP and City policies related to airport noise are discussed under Impact NOI-4 in Section 3.6, *Noise*.

Impact C-LU-1: Cumulative Land Use Impacts. The Project, in combination with other foreseeable development in the nine-county ABAG region, would not result in a significant environmental impact due to a conflict with some applicable land use plans, policies, and regulations. (Less than Significant)

Construction and Operation

As noted, CEQA requires an EIR to consider whether a proposed project may conflict with an applicable land use plan, policy, or regulation that was adopted for the purpose of avoiding or mitigating an environmental impact. This environmental determination differs from the larger policy determination of whether a proposed project is consistent with a jurisdiction's general plan. Regional growth in general is

[28] The nine-county ABAG region includes Alameda County, Contra Costa County, Marin County, Napa County, San Francisco County, San Mateo County, Sana Clara County, Solano County, and Sonoma County.

reviewed for consistency with adopted land use plans and policies by the individual cities and counties in the geographic context in accordance with the requirements of CEQA, which requires findings of plan and policy consistency prior to approval of entitlements for development. This process applies to all projects identified in Table 3-1 in Chapter 3, *Environmental Impact Analysis*. Project consistency with land use policies or regulations adopted for the purpose of avoiding or mitigating an environmental impact is similarly evaluated for each individual project and addressed in the analysis for each specific resource area. For example, if an individual project were to result in impacts on special-status species, that would be addressed in the *Biological Resources* section of that project's EIR or other environmental documents. The environmental evaluation for a project would also include an analysis of impacts on protected species on a cumulative basis.

Consistency with land use plans and policies is inherently a project-specific issue. Each jurisdiction determines project consistency at the project level. Typically, there would be no cumulative impact from development in the ABAG region because the growth associated with a particular project would have been accounted for in the relevant jurisdiction's planning documents and incorporated into ABAG projections. It is assumed that all projects, with the exception of the Freedom Circle Focus Area, identified in Chapter 3, *Environmental Impact Analysis*, are accounted for in the general plans of the respective cities and, in turn, included in ABAG projections.

As described in Impacts LU-3 and LU-4, the Project would be generally consistent with applicable goals, policies, and actions outlined in the CLUP and the City General Plan. The proposed General Plan amendment to change the existing designation of High-Intensity Office/R&D to Urban Center Mixed Use, including associated land use classifications, would meet the intent of land use policies, as described in Table 3.1-3.

The Project site is within the SJC's Federal Aviation Regulation Part 77 Surfaces Map, which pertains to maximum height limitations. The Project would be required to comply with FAA and CLUP regulations, ensuring that the Project would not introduce new buildings that would exceed applicable CLUP building height limits. As described above, in accordance with the proposed General Plan and zoning amendments, the maximum height of the new buildings would be in compliance with the height regulations and restrictions established by the FAA and CLUP. Therefore, because of the Project's general consistency with land use policies, the Project would not contribute to a significant cumulative impact, and any potential conflicts with the General Plan and CLUP would be ***less than significant***.

Table 3.1-3. Comparison of the Project to General Plan Goals and Policies

General Plan Goal/Policy	Consistency Analysis
General Land Use Goals and Policies	
Goal 5.1.1-G1: Cohesive, integrated planning that restrains premature development prior to the necessary supportive infrastructure has been programmed for each phase of the progressive General Plan.	CONSISTENT. The Project site is included in the General Plan as an "Approved/Not Constructed, and Pending Project," a designation related to the previously approved Yahoo! Campus Planned Development Zoning and Development Agreement for a 3 million gsf high-intensity office/R&D campus. Therefore, although part of the Project was envisioned and planned for in the General Plan, the remaining residential, retail, childcare, and community amenity uses were not. However, the Project proposes phased development, with full build-out estimated in 2034, and installation of the necessary infrastructure improvements and expansions during construction of each phase. The infrastructure improvements are discussed in detail in Section 3.15, *Utilities and Service Systems*. The Project would include cohesive, integrated planning that would restrain premature development prior to installation of the necessary supportive infrastructure.
Goal 5.3.1-G3: Development that minimizes vehicle miles traveled, capitalizes on public investment in transit and infrastructure, and is compatible with surrounding uses.	CONSISTENT. As discussed in Section 3.2, *Transportation*, the Project qualifies as a transit-supportive project because it meets the criteria established by the City related to proximity to transit, density, multimodal transportation networks, transit-oriented design elements, parking, and affordable housing. The Project site is within walking distance of multiple VTA light rail stations as well as Great America station, which is served by Amtrak's Capital Corridor and Altamont Corridor Express. The Project is largely consistent with surrounding uses, including Levi's Stadium, the Hilton Santa Clara Hotel, Convention Center, California's Great America Amusement Park, and the Patrick Henry Specific Plan adjacent to the site. Overall, given the adjacency of public transit and compatibility with surrounding uses, the Project would be largely consistent with this policy.
Goal 5.3.1-G4: Opportunities for public participation in the review process for new development and other related planning efforts.	CONSISTENT. Opportunities for public participation will be provided in accordance with the State CEQA Guidelines throughout the Project development process. An NOP for the Project was published on April 18, 2022, for a 30-day review period, with a public scoping meeting on May 4, 2022. The comments received during the NOP comment period have been considered and addressed throughout this Draft EIR, which will be released for a 45-day public review period, during which time public participation will be encouraged. Comments received during this time will be addressed in the Final EIR. Should the EIR be certified, public participation will still occur throughout Project development, including at public hearings for Project entitlement approvals.

General Plan Goal/Policy	Consistency Analysis
Policy 5.3.1-P1: Preserve the unique character and identity of neighborhoods through community-initiated neighborhood planning and design elements incorporated in new development.	CONSISTENT. The proposed buildings, as seen from nearby residential neighborhoods, would not be a significant feature. Because of the distance as well as intervening structures and vegetation, views of the buildings from existing neighborhoods would be largely blocked. The proposed buildings would reflect an architectural design that would be similar to that of existing compatible development in the area. The site plans for the Project include design guidelines and development standards for site planning, architectural character, landscaping, signage, and lighting, which would be required to be reviewed and approved by the City. Therefore, the Project would not change the unique character or identity of neighborhoods.
Policy 5.3.1-P2: Encourage advance notification and neighborhood meetings to provide an opportunity for early community review of new development proposals.	CONSISTENT. Scoping meeting notices were sent to residents to notify them of the 30-day NOP comment period. A specific radius was not applied to the mailing; instead, the City identified properties and neighborhoods that are in proximity to the Project site. Meetings related to Project development and environmental review have been, and will continue to be, advertised prior to scheduled meetings, according to State CEQA Guidelines and City procedures.
Policy 5.3.1-P3: Support high quality design consistent with adopted design guidelines and the City's architectural review process.	CONSISTENT. The buildings would reflect an architectural design that would be similar to that of existing compatible development in the area. Architectural review of the Project will be conducted through review and approval of the site plans by the City consistent with the Project's proposed Planned Development zoning.
Policy 5.3.1-P4: Encourage new development that meets the minimum intensities and densities specified in the land use classifications or as defined through applicable focus area, neighborhood compatibility or historic preservation policies of the General Plan.	CONSISTENT. Under the Project's proposed General Plan amendment for the Urban Center Mixed-Use land use designation, the Project site would have a minimum FAR of 1.5 and a maximum residential density of up to 250 dwelling units per acre.
Policy 5.3.1-P6: Allow planned development only if it is consistent with General Plan land use density and intensity requirements and provides a means to address unique situations to achieve high community design standards that would otherwise not be feasible.	CONSISTENT. The Project would require a General Plan amendment to change the land use designation from High-Intensity Office/R&D to Urban Center Mixed Use. The new land use designation would provide the means for permitting a new development and making efficient use of the unique characteristics of the Project site while ensuring compatibility with existing and future development in the area (refer to Policy 5.3-1-P3).

General Plan Goal/Policy	Consistency Analysis
Policy 5.3.1-P10: Provide opportunities for increased landscaping and trees in the community, including requirements for new development to provide street trees and a minimum 2:1 onsite or offsite replacement for trees removed as part of the proposal to help increase the urban forest and minimize the heat island effect.	CONSISTENT. The Project would require the removal of all trees at the Project site. Currently, there are approximately 350 trees at the Project site, 17 of which are protected. The Project would be required to replace protected trees at the City's required ratio of 2:1 (for 24-inch box trees) or 4:1 (for 15-gallon trees). Dead or unsuitable trees are required to be replaced at a 1:1 ratio. In addition to the required plantings, the Project includes extensive landscaping and a new park and open space.
Policy 5.3.1-P11: Encourage new developments proposed within a reasonable distance of an existing or proposed recycled water distribution system to utilize recycled water for landscape irrigation, industrial processes, cooling and other appropriate uses to reduce water use consistent with the CAP.	CONSISTENT. The Project site is currently connected to a recycled water system for irrigation of the landscaped areas on the site. Recycled water would be used onsite for irrigation and non-potable water uses within non-residential buildings. Each connection would require City and State approval through an independent recycled water permitting process.
Policy 5.3.1-P12: Encourage convenient pedestrian connections within new and existing developments.	CONSISTENT. Pedestrian connections would be constructed throughout the Project site, as discussed in Chapter 2, *Project Description*. A bicycle lane and pedestrian walkway would be included along Kylli Drive East and West. This would continue past the end of Kylli Drive East and West to connect to Patrick Henry Drive and Old Ironsides Drive. In addition, the new, approximately 30-foot-wide Santa Clara Trail would also provide a connection for bicyclists and pedestrians between Patrick Henry Drive and Old Ironsides Drive.
Policy 5.3.1-P13: Support high density and intensity development within a quarter-mile of transit hubs and stations and along transit corridors.	CONSISTENT. The Project would include high-density mixed-use development. The Project site is located within a TPA and currently within walking distance of several VTA light rail stations as well as Great America station, which is served by Amtrak's Capital Corridor and Altamont Corridor Express.
Policy 5.3.1-P14: Encourage Transportation Demand Management strategies and the provision of bicycle and pedestrian amenities in all new development greater than 25 housing units or more than 10,000 non-residential square feet, and for City employees, in order to decrease use of the single-occupant automobile and reduce vehicle miles traveled consistent with the CAP.	CONSISTENT. The Project Sponsor would implement parking and Transportation Demand Management (TDM) programs and strategies, which would help reduce the number of vehicle trips to/from the Project site and encourage alternatives to single-occupancy vehicle travel. In addition, bicycle and pedestrian connections and amenities would be constructed throughout the Project site to encourage alternate modes of transportation.

General Plan Goal/Policy	Consistency Analysis
Policy 5.3.1-P15: Require new developments and major public infrastructure projects to include adequate rights-of-way to accommodate all modes of transportation.	CONSISTENT. As described in more detail in Chapter 2, *Project Description*, the Project would include several access points from existing roadways, realigned roadways, and a new network of sidewalks and bicycle lanes. Refer to Policy 5.3.1-P12 for a discussion of pedestrian amenities. Adequate rights-of-way would be provided to accommodate all modes of transportation.
Policy 5.3.1-P16: Consolidate curb cuts with new development on arterial roadways to minimize pedestrian/vehicle conflicts at driveway locations and improve traffic flow.	CONSISTENT. The Project site would include several access points from existing roadways, realigned roadways (Kylli Drive East and West), as well as a new network of sidewalks and bicycle lanes, as described in Chapter 2, *Project Description*. Therefore, the pedestrian/vehicle conflicts at driveway locations would be minimized, and traffic flow would most likely be minimally affected.
Policy 5.3.1-P18: Meter net new industrial and commercial development excluding "Approved/Not Constructed and Pending Projects" identified on Figure 2.3-1 so as not to exceed 2.75 million square feet in Phase I, 5.5 million square feet in Phase II and 5.5 million square feet in Phase III in order to maintain the city's jobs/housing balance and ensure adequate infrastructure and public services.	CONSISTENT. The Project would include commercial uses not identified in the City General Plan, including retail, residential, childcare, and community uses. The Project could include up to 3 million gsf of office/R&D development, which was assumed as part of the "Approved/Not Constructed and Pending Projects" identified in Figure 2.3-1 and Table 8.6.2 of the General Plan. Therefore, the Project's office/R&D development is excluded from the General Plan's phasing limits and would not exceed the commercial caps outlined for Phases II and III. However, the Project would also provide additional housing units not already included in the City's Housing Element, which would slightly improve the City jobs/housing ratio. Therefore, there would be no conflict with the jobs/housing ratio. Please refer to the discussion in Impact LU-2.
Policy 5.3.1-P24: Coordinate sign programs for commercial uses to promote continuity, improve streetscape design and reduce visual clutter.	CONSISTENT. Signage installed at the Project site would be required to adhere to the design guidelines adopted as part of the Project's Planned Development zoning.
Policy 5.3.1-P27: Encourage screening of above-ground utility equipment to minimize visual impacts.	CONSISTENT. The Project would include screening of aboveground utility equipment to minimize visual impacts. Screening would be consistent with the design guidelines adopted in the City Municipal Code.
Policy 5.3.1-P29: Encourage design of new development to be compatible with, and sensitive to, nearby existing and planned development, consistent with other applicable General Plan policies.	CONSISTENT. Development would be required to adhere to the design guidelines adopted as part of the Project's Planned Development zoning, which were established in accordance with the City of Santa Clara's vision and designed to be complementary to the adjacent Patrick Henry Drive Specific Plan area. Adherence to the design guidelines would help integrate the Project with nearby development.

General Plan Goal/Policy	Consistency Analysis
Policy 5.3.1-P33: Implement, and regularly update, the City's adopted CAP to reduce greenhouse gas emissions and meet the established goals consistent with State regulations.	CONSISTENT. As discussed in Section 3.4, *Greenhouse Gas Emissions*, the Project would be consistent with all required and applicable measures from the City's CAP checklist. Overall, the Project would support the 2022 CAP's strategy to advance sustainable land use. The proposed density at the Project site would serve to reduce the physical footprint required to live, socialize, and work, thereby decreasing the land, water, and energy required per capita. In addition, the Project would also convert much of the current hardscape into open spaces, including fields for recreation, plazas, and streetscapes that promote stormwater management and habitat restoration. Please refer to the discussion in Impact GHG-2 in Section 3.4, *Greenhouse Gas Emissions*.
Residential Land Use Goals and Policies	
Goal 5.3.2-G4: Respect for the existing character and quality of adjacent neighborhoods from new residential development and redevelopment.	CONSISTENT. Views of the Project site are largely blocked from nearby residential neighborhoods in Sunnyvale (to the west) and Santa Clara (to the east). However, because of the building heights proposed, some buildings might be visible at a distance. The Project buildings would appear integrated and visually consistent with surrounding development in the overall landscape. In addition, development would be required to adhere to the design guidelines and development standards adopted as part of the Project's Planned Development zoning, which would integrate the Project with nearby residential development planned for the Patrick Henry Specific Plan area.
Policy 5.3.2-P2: Encourage higher-density residential development in transit and mixed-use areas and in other locations throughout the city where appropriate.	CONSISTENT. The Project would incorporate mixed-use development with high- and very high-intensity office/R&D, residential, retail, childcare, and community uses adjacent to major transit nodes. Up to 1,800 higher-density housing units could be provided in an area that is accessible from local and regional public transportation.
Policy 5.3.2-P3: Encourage below-grade parking and parking structures for development in Medium-Density and High-Density designations.	CONSISTENT. The Project would include provide up to 9,400 parking spaces for proposed onsite uses in an underground parking structure and in above-grade podium parking.
Policy 5.3.2-P11. Maintain the existing character and integrity of established neighborhoods through infill development that is keeping with the scale, mass, and setbacks of existing or planned adjacent development.	CONSISTENT. The Project would include mixed-use development that would be compatible in scale and character with surrounding buildings, including Levi's Stadium, the Hilton Santa Clara Hotel, the Convention Center, and the Patrick Henry development. Because of distance and intervening vegetation, roads, and structures, the Project site is separated from surrounding residential neighborhoods. Individual area development would be required to adhere to the design guidelines and development standards adopted as part of the Project's Planned Development zoning, which would allow the Project to be similar to existing or planned adjacent development with respect to scale and mass.

General Plan Goal/Policy	Consistency Analysis
Policy 5.3.2-P21: Encourage new housing developments to incorporate design features, programs and incentives for increased transit ridership and decreased parking demand.	CONSISTENT. The Project would include appropriate design features and incentives for increased transit ridership, such as pedestrian connections to nearby transit stops and decreased parking demand. The residential units would be located within walking distance of several local and regional transit facilities, which would encourage their use. In addition, the Project Sponsor would implement a TDM plan, which would help increase transit ridership.
Commercial Land Use Goals and Policies	
Goal 5.3.3-G2: Quality commercial uses throughout the city, particularly along key transportation corridors.	CONSISTENT. The Project would provide opportunities for quality commercial uses at the Project site. The Project site is currently within a TPA and within walking distance of numerous VTA light rail stops, including Old Ironsides Station, Reamwood Station, and Great America Station. In addition, Amtrak's Capitol Corridor and Altamont Corridor Express operate out of Great America Station, which is approximately 1 mile from the Project site.
Goal 5.3.3-G3: Sufficient commercial services for residents and businesses that are accessible using alternate transportation modes.	CONSISTENT. Retail and commercial uses on the site would be accessible for bicyclists and pedestrians with the construction of new bicycle paths and sidewalks. In addition, because density would be increased, retail and commercial uses would be more concentrated on the site and, therefore, more accessible from alternative transportation modes.
Goal 5.3.3-G4: New commercial uses that respect surrounding neighborhoods and are sited to reduce potential land use conflicts.	CONSISTENT. Existing development adjacent to the Project site includes mostly low-intensity office/R&D uses within areas zoned for light industrial and planned development (e.g., the Patrick Henry Specific Plan area). New commercial (retail) uses would be provided throughout the Project site and dispersed to help reduce potential land use conflicts, providing retail uses in areas that would be accessible from multiple alternative modes of transit throughout the Project site. This would encourage a reduction in the amount of vehicle traffic generated from the new retail uses on the Project site by diverting drivers to alternative modes of transit. In addition, the retail uses would be easily accessible from surrounding areas. These commercial uses would still be accessible from local and regional public transit and located away from neighborhoods to reduce land use conflicts.
Policy 5.3.3-P8. Require quality design for new and redeveloped commercial uses to support the City's economic development objectives.	CONSISTENT. Development would be required to adhere to the design guidelines and development standards adopted as part of the Project's proposed Planned Development zoning, which incorporate quality designs into new commercial uses.
Mixed-Use Land Use Goals	
Goal 5.3.4-G3: Mixed-use development that maximizes accessibility to alternate transportation modes and integrates pedestrian, bicycle, transit, open space and outdoor uses to encourage active centers.	CONSISTENT. The Project would be a mixed-use project that would emphasize accessibility to alternative transportation modes. The Project site is currently within walking distance from multiple VTA light-rail stations and Great America Station. Bicycle and pedestrian networks would be integrated into the site, including onsite bicycle lanes and sidewalks that would connect to offsite bicycle lanes and sidewalks. The Project would include retail, office/R&D, childcare, and community uses that would be concentrated around open spaces.

General Plan Goal/Policy	Consistency Analysis
Policy 5.3.4-P7. Use design techniques, such as stepping down building heights, and siting incompatible activities, such as loading and unloading, away from residential uses.	CONSISTENT. Development of each of the Project's areas (i.e., Area A, B, C, and D) would be required to adhere to the design guidelines and development standards adopted as part of the Project's Planned Development zoning, which include standards for step-backs. Off-street loading would be provided consistent with the City's minimum requirements and away from residential uses.
Policy 5.3.4-P13: Encourage pedestrian linkages in mixed-use areas through measures such as enhanced lighting, curb bulb-outs, mid-block pedestrian crossings, pedestrian "refuge" areas in planted medians and pedestrian-oriented building frontages.	CONSISTENT. The Project would encourage pedestrian linkages in the proposed mixed-use area through measures such as new sidewalks and pedestrian pathways throughout the site. In addition, it is anticipated that enhanced lighting, curb bulb-outs, or other pedestrian amenities would be included in the Project, as well as development for each area, and incorporated into the final site plans.
Policy 5.3.4-P14: Provide a network of streets and pedestrian connections in large mixed-use developments.	CONSISTENT. A complete network of streets and pedestrian connections is proposed. The new approximately 30-foot-wide Santa Clara Trail would also provide a connection for pedestrians and bicyclists between Patrick Henry and Old Ironsides Drive. In addition, new sidewalks and pedestrian pathways are proposed to link the areas together. Figure 2-7 in Chapter 2, *Project Description*, shows the proposed bicycle and pedestrian circulation plan.
Policy 5.3.4-P15: Maximize opportunities to connect streets, bicycle facilities and pedestrian pathways to improve accessibility between mixed-use development and surrounding neighborhoods, parks, open spaces, transit and public amenities. Provide clear signage, high visibility, adequate lighting and special paving to enhance pedestrian and bicycle facilities.	CONSISTENT. A bicycle and pedestrian network is proposed that would connect streets and improve accessibility between the Project site and surrounding neighboring land uses and adjacent development. The new approximately 30-foot-wide Santa Clara Trail would also provide a connection for pedestrians and bicyclists between Patrick Henry and Old Ironsides Drive. Bicycle and pedestrian amenities, such as signage, lighting, and paving, would be included in the final site plan.
Office and Industrial Land Use Goals and Policies	
Goal 5.3.5-G3: Higher-intensity employment centers located near major transit services and major transportation corridors to reduce vehicle miles traveled.	CONSISTENT. As discussed in Section 3.2, *Transportation*, the Project qualifies as a transit-supportive project because it meets the criteria established by the City related to proximity to transit, density, multimodal transportation networks, transit-oriented design elements, parking, and affordable housing. The Project site is currently within walking distance of multiple VTA light rail stations and Great America Station, which is served by Amtrak's Capital Corridor and Altamont Corridor Express.
Policy 5.3.5-P7: Require building heights to conform to the requirements of the Federal Aviation Administration, where applicable.	CONSISTENT. The Project's tallest building is projected to be approximately 202 feet above the future finished grade. Project building heights would not exceed 350 feet above mean sea level, which is consistent with applicable FAA hazard height limits at SJC.

General Plan Goal/Policy	Consistency Analysis
Policy 5.3.5-P8: Encourage the provision of services and amenities as part of larger developments in employment areas that cater to lunchtime and service needs, such as dry cleaners, to reduce vehicle miles traveled.	CONSISTENT. As discussed in Section 3.2, *Transportation*, the Project qualifies as a transit-supportive project because it meets the criteria established by the City related to proximity to transit, density, multimodal transportation networks, transit-oriented design elements, parking, and affordable housing. In addition, onsite office/R&D buildings, which would be located within Areas A, B, and C, would be in proximity to the Project's retail and community uses, which would provide services and amenities for onsite employees and residents.
Archaeological and Cultural Resources Goals and Policies	
Goal 5.6.3-G1: Protection and preservation of cultural resources, as well as archaeological and paleontological sites.	CONSISTENT. The Project could disturb cultural resources because of its location in an area that is underlain by geologic units that have indicated sensitivity for buried pre-European contact archaeological deposits and yielded scientifically important fossil finds, including vertebrate remains. As stated in Section 3.7, *Cultural Resources*, the Project would implement the following Mitigation Measures for areas where ground disturbance could occur: Mitigation Measures CUL-2.1 (Develop and Implement Archaeological Monitoring Plan), CUL-2.2 (Conduct Cultural Resource Sensitivity Training Prior to Project-Related Ground Disturbance), and CUL-2.2 (Stop Work if Archaeological Deposits Are Encountered during Ground-Disturbing Activities), along with GEO-6.1 (Paleontological Resources).
Goal 5.6.3-G2: Appropriate mitigation in the event that human remains, archaeological resources or paleontological resources are discovered during construction activities.	CONSISTENT. As stated in Section 3.7, *Cultural Resources*, the Project would implement Mitigation Measures CUL-2.1 (Develop and Implement Archaeological Monitoring Plan), CUL-2.2 (Conduct Cultural Resource Sensitivity Training Prior to Project-Related Ground Disturbance), and CUL-2.3 (Stop Work if Archaeological Deposits Are Encountered during Ground-Disturbing Activities), along with GEO-6.1 (Paleontological Resources), in the event that archaeological resources, paleontological resources, or human remains are discovered during construction activities.
Policy 5.6.3-P1: Require that new development avoid or reduce potential impacts to archaeological, paleontological and cultural resources.	CONSISTENT. The Project could disturb cultural resources because of its location in an area that is underlain by geologic units that have indicated sensitivity for buried pre-European contact archaeological deposits and yielded scientifically important fossil finds, including vertebrate remains. Therefore, the Project would implement Mitigation Measures CUL-2.1, CUL-2.2, and CUL-2.3, as well as GEO-6.1, in the event that archaeological resources, paleontological resources, or human remains are discovered during construction activities.
Policy 5.6.3-P2: Encourage salvage and preservation of scientifically valuable paleontological or archaeological materials.	CONSISTENT. Mitigation Measures CUL-2.1, CUL-2.2, and CUL-2.3, as well as GEO-6.1, would encourage the salvage and preservation of scientifically valuable paleontological and archaeological materials in the event of their discovery.

General Plan Goal/Policy	Consistency Analysis
Policy 5.6.3-P3: Consult with California Native American tribes prior to considering amendments to the City's General Plan.	CONSISTENT. Native American consultation, pursuant to Assembly Bill (AB) 52 and SB 18, was conducted for this Project. After AB 52 consultation was completed, no responses were received as part of outreach efforts. SB 18 consultation is ongoing; records will be updated as responses are received. Appendix 3.14 of this document contains all correspondence related to this Project between the City and Native American contacts to date.
Policy 5.6.3-P4: Require that a qualified paleontologist/archaeologist monitor all grading and/or excavation if there is a potential to affect archaeological or paleontological resources, including sites within 500 feet of natural water courses and in the Old Quad neighborhood.	CONSISTENT. The Project site is not located in the Old Quad neighborhood but is within 500 feet of natural water courses. Mitigation Measures CUL-2.1 and CUL-2.3, as well as GEO-6.1, would require a qualified paleontologist/archaeologist to prepare and implement an archaeological monitoring plan and a general recovery plan prior to grading and/or ground-disturbing activities to provide direction in the event of a discovery. If such a discovery is made, a qualified paleontologist/ archaeologist shall be retained to assess the discovery and determine the approach path forward.
Policy 5.6.3-P5: In the event that archaeological/paleontological resources are discovered, require that work be suspended until the significance of the find and recommended actions are determined by a qualified archaeologist/paleontologist.	CONSISTENT. Mitigation Measures CUL-2.1 and CUL-2.3, as well as GEO-6.1, require work to be suspended if archaeological or paleontological resources are encountered during ground-disturbing activities. The Project would be required to implement these mitigation measures.
Policy 5.6.3-P6: In the event that human remains are discovered, work with the appropriate Native American representative and follow the procedures set forth in State law.	CONSISTENT. Mitigation Measures CUL-2.1 and CUL-2.3 would require work to stop if human remains are encountered during ground-disturbing activities. The County Coroner would be notified; if the remains are determined to be Native American, the County Coroner would notify the Native American Heritage Commission.
General Mobility and Transportation Goals and Policies	
Goal 5.8.1-G1: Transportation networks that support the General Plan major strategies as well as the goals and policies for prerequisites, land use, focus areas, neighborhood compatibility, public services and environmental quality.	CONSISTENT. Proposed Kylli Drive East and West and access driveways would support major strategies as well as goals and policies of the General Plan, as discussed in more detail above and below.

General Plan Goal/Policy	Consistency Analysis
Goal 5.8.1-G3*:* Transportation networks that promote a reduction in the use of personal vehicles and vehicle miles traveled.	CONSISTENT. As discussed in Section 3.2, *Transportation*, the Project qualifies as a transit-supportive project because it meets the criteria established by the City related to proximity to transit, density, multimodal transportation networks, transit-oriented design elements, parking, and affordable housing. In addition, the Project would use the existing and future transportation network, as well as TDM strategies and goals, to further reduce VMT. Kylli Drive East and West, bicycle paths, and sidewalks throughout the site would provide access to existing transit options that are currently within walking distance. VTA operates a light rail service with numerous nearby stops along Tasman Drive north of the Project site, including Old Ironsides Station (less than 500 feet away), Reamwood Station (less than 1,000 feet away), and Great America Station (approximately 0.3 mile away). Amtrak's Capital Corridor and Altamont Corridor Express operate along the UPRR ROW and provide service to the Project area from Great America Station, located at Lafayette Street and Tasman Drive (approximately 1 mile from the Project site). The construction of new bicycle paths and sidewalks that connect to existing major arterials would allow greater access to the Project site and greater access to different modes of transit.
Policy 5.8.1-P2: Link all city transportation networks, including pedestrian and bicycle circulation, to existing and planned regional networks.	CONSISTENT. The Project proposes constructing new transportation networks, including bicycle and pedestrian pathways throughout the Project site. As part of the Project, a bicycle lane and pedestrian walkway would be included along Kylli Drive East and West, which would continue to bisect the Project site in an east–west direction. The bicycle lane and pedestrian walkway would continue past the end of Kylli Drive East and West and connect to Patrick Henry Drive and Old Ironsides Drive. The new Santa Clara Trail would also provide a bicycle and pedestrian connection between Patrick Henry Drive and Old Ironsides Drive. The Santa Clara Trail would be approximately 30 feet in width. In addition, the other open space areas (i.e., Gateway Park Area and South Park Area) would bisect the Project site in a north–south direction and connect Tasman Drive and the Santa Clara Trail and would provide bicycle and pedestrian connectivity. Bicycle lanes would also be provided around the exterior of the Project site along Tasman Drive, Patrick Henry Drive, and Old Ironsides Drive. These new bicycle and pedestrian facilities would connect the Project site to regional bus and rail systems, including VTA, and Amtrak's Capitol Corridor.
Policy 5.8.1-P4: Expand transportation options and improve alternate modes that reduce greenhouse gas emissions.	CONSISTENT. The Project would expand transportation options and improve alternative modes of transit, which would help reduce GHG emissions by constructing new bicycle lanes, paths, and routes as well as new trails and pedestrian sidewalks. A dense, compact bicycle and pedestrian network that links to the bus and rail system west and east of the Project site would allow greater flexibility and transportation choices. The Project also would implement a variety of TDM strategies, such as participation in last-mile and long-haul shuttle services, to reduce VMT and greenhouse gas emissions.

General Plan Goal/Policy	Consistency Analysis
Policy 5.8.1-P5: Work with local, regional, State and private agencies, as well as employers and residents, to encourage programs and services that reduce vehicle miles traveled.	CONSISTENT. As discussed in Section 3.2, *Transportation*, the Project qualifies as a transit-supportive project because it meets the criteria established by the City related to proximity to transit, density, multimodal transportation networks, transit-oriented design elements, parking, and affordable housing. In addition, the Project Sponsor would implement a TDM plan, which would help to reduce the number of vehicle trips to/from the Project site. The Project may form or participate in a Transportation Management Association to oversee and coordinate TDM activities of various employers and residential communities onsite. The Transportation Management Association may include other proximate developments, employers, or residential developments in nearby focus/specific plan areas.
Roadway Network Goals and Policies	
Goal 5.8.2-G3: A roadway network designed to accommodate alternate transportation modes in addition to vehicles.	CONSISTENT. The proposed roadway network includes bicycle lanes along Kylli Drive East and West, Tasman Drive, Patrick Henry Drive, and Old Ironsides Drive. Sidewalks would be included along Kylli Drive East and West and throughout the Project site. Bicycle and pedestrian facilities would be integrated into the surrounding existing roadway network to allow greater flexibility in transportation choices.
Policy 5.8.2-P1: Require that new and retrofitted roadways implement "full-service streets" standards, including minimal vehicular travel lane widths, pedestrian amenities, adequate sidewalks, street trees, bicycle facilities, transit facilities, lighting and signage, where feasible.	CONSISTENT. Proposed Kylli Drive East and West, as well as the portions of Tasman Drive, Patrick Henry Drive, and Old Ironside Drive abutting the Project site, would be designed as complete streets. Sidewalks would be constructed on both sides of Kylli Drive East and West, and non-motorized pedestrian pathways would be located throughout the Project site. A bicycle path would bisect the Project site along Kylli Drive East and West.
Policy 5.8.2-P2: Discourage widening of existing roadway or intersection rights-of-way without first considering operational improvements, such as traffic signal modifications, turn-pocket extension and intelligent transportation systems.	CONSISTENT. Operational improvements, such as signal modifications, turn-pocket extensions, and intelligent transportation systems, are included as part of the Project design; these are described in the *Kylli Mission Point Mixed-Use Development Transportation Analysis* (Appendix 3.2).
Policy 5.8.2-P3: Encourage undergrounding of utilities and utility equipment within the public ROW and site these facilities to provide opportunities for street trees and adequate sidewalks.	CONSISTENT. A review of Silicon Valley Power's (SVP's) utility base maps indicates that there is a network of lines in all streets adjacent to the Project site, including Democracy Way, as well as other areas of the Project site. All new electrical lines installed as part of the Project would be underground.
Policy 5.8.2-P6: Interconnect and coordinate traffic signals to maximize vehicle flow on the city's roadway network to reduce the need for roadway widening.	CONSISTENT. Refer to Policy 5.8.2-P2.

General Plan Goal/Policy	Consistency Analysis
Policy 5.8.2-P8: Minimize disruption of traffic flow resulting from truck traffic and deliveries, particularly during commute hours.	CONSISTENT. Truck traffic would increase during the construction period. Trucks would be used to deliver building materials and export debris to the Zanker Material Processing Facility in San José. Truck trips related to construction would occur over an extended period of time; they would be spread out over approximately 9 years and would not be a permanent impact. Operational deliveries would be expected to result in minimal disruptions during commute hours.
Policy 5.8.2-P9: Require all new development to provide streets and sidewalks that meet City goals and standards, including new development in employment areas.	CONSISTENT. The Project would include construction of Kylli Drive East and West as well as the construction of new bicycle lanes and sidewalks that would connect to public amenities and destinations. The new street and sidewalks would meet City goals and standards. Development of each area would be required to adhere to the design guidelines and development standards adopted as part of the Project's Planned Development zoning.
Policy 5.8.2-P12: Coordinate transportation planning with emergency service providers to ensure continued emergency service operations and services.	CONSISTENT. Circulation diagram and access points have been reviewed by the City Traffic Engineer and will be enhanced and coordinated with the Santa Clara Fire Department to allow adequate emergency access to the Project site. Because of increased traffic as a result of the Project, general emergency response times could be affected. However, as detailed in Section 3.13, *Public Services and Recreation*, response times to emergencies on the Project site would not be affected by traffic.
Transit Network Goals and Policies	
Goal 5.8.3-G2: A transit network that supports a reduction in automobile dependence for residents, employees and visitors.	CONSISTENT. The Project would include construction of Kylli Drive East and West as well as the construction of new bicycle lanes and sidewalks that would connect to the transit network around the Project site. With the proposed bicycle and pedestrian improvements, the Project site would be within walking distance from several VTA light rail stops and Great America Station on the UPRR ROW.
Policy 5.8.3-P8: Require new development to include transit stop amenities, such as pedestrian pathways to stops, benches, traveler information and shelters.	CONSISTENT. The Project would include construction of Kylli Drive East and West, as well as the construction of new bicycle lanes and sidewalks that would connect to the existing transit network north and east of the Project site. With the proposed pedestrian pathways, the Project site would be within walking distance from several VTA light rail stops and Great America Station on the UPRR ROW.

General Plan Goal/Policy	Consistency Analysis
Policy 5.8.3-P9: Require new development to incorporate reduced onsite parking and provide enhanced amenities, such as pedestrian links, benches and lighting, in order to encourage transit use and increase access to transit services.	CONSISTENT. The Project would include parking, as allowed within the proposed Urban Center Mixed-Use district. Because of the opportunity for shared parking at the Project site, the overall parking ratios at the site would be lower than the City Code requirements that would otherwise have been applied. The Project is being designed to meet, but not exceed, these minimum parking requirements. The design includes shared parking, which accommodates an overall lower parking ratio than the City Code's requirements. By not providing excess parking, and by implementing a TDM plan, the Project would encourage the use of alternative travel modes to reduce the number of single-occupant vehicles. In addition, pedestrian access to transit would be provided throughout the Project site. Benches and lighting would also be provided in all areas to facilitate pedestrian access.
Policy 5.8.3-P10: Require new development to participate in public/private partnerships to provide new transit options between Santa Clara residences and businesses.	CONSISTENT. The Project would include TDM strategies, such as participation in long-haul shuttle and last-mile services, transit subsidies for office workers, rideshare matching programs for all site workers and residents, preferential parking for carpools and vanpools, bikeshare and scooter programs, and parking for carshare service(s).
Policy 5.8.3-P11: Encourage feeder services to carry commuters to transit stations, including shuttle connections from businesses, residences, and attractions to bus and rail services.	CONSISTENT. The Project site would be within walking distance from several VTA light rail stops and Great America Station on the UPRR ROW. In addition, the TDM plan could include participation in a shuttle service between the nearby transit stations and the onsite businesses and residences. This would promote the use of public transportation.
Bicycle and Pedestrian Network Goals and Policies	
Goal 5.8.4-G1: Pedestrian and bicycle connections that are accessible throughout the city to all segments of the population.	CONSISTENT. Bicycle and pedestrian connections would be constructed throughout the Project site, as discussed in Chapter 2, *Project Description*. A bicycle lane and pedestrian walkway would be included along Kylli Drive East and West, which would continue to bisect the Project site in an east–west direction. The bicycle lane and pedestrian walkway would continue past the end of Kylli Drive East and West to connect Patrick Henry Drive and Old Ironsides Drive for pedestrians and bicyclists. The new Santa Clara Trail would also provide a bicycle and pedestrian connection between Patrick Henry Drive and Old Ironsides Drive. In addition, the other open space areas (i.e., Gateway Park Area, and South Park Area) would bisect the Project site in a north–south direction and connect Tasman Drive and the Santa Clara Trail and would provide bicycle and pedestrian connectivity. Bicycle lanes would also be provided around the exterior of the Project site along Tasman Drive, Patrick Henry Drive, and Old Ironsides Drive. These facilities would increase accessibility for bicyclists and pedestrians.
Goal 5.8.4-G2: A bicycle and pedestrian network that provides links from neighborhoods to public amenities and destinations.	CONSISTENT. The Project would include construction of Kylli Drive East and West as well as the construction of new bicycle lanes and sidewalks that would facilitate connections to public amenities and destinations such as the Calabazas Creek Trail, the San Tomas Aquino Creek Trail, the Convention Center, nearby open spaces and parks (such as the Santa Clara Youth Soccer Park), and Levi's Stadium.

General Plan Goal/Policy	Consistency Analysis
Goal 5.8.4-G3: Walking and bicycling as alternatives to driving to reduce vehicle commute and non-commute trips, and to improve community health and reduce vehicle use.	CONSISTENT. Bicycle and pedestrian connections would be constructed throughout the Project site. This would encourage residents, employees, and visitors to frequent the onsite amenities, thereby reducing the number of commute and non-commute trips, improving community health, and reducing vehicle use.
Policy 5.8.4-P1: Provide a comprehensive, integrated bicycle and pedestrian network that is accessible for all community members.	CONSISTENT. Bicycle and pedestrian connections would be constructed throughout the Project site. These would be connected to existing offsite bicycle lanes and facilitate connections to the larger network, including the Calabazas Creek Trail and the San Tomas Aquino Creek Trail. Therefore, the Project site would be accessible for all community members.
Policy 5.8.4-P2: Provide a system of pedestrian and bicycle friendly facilities that supports the use of alternative travel modes and connects to activity centers as well as residential, office and mixed-use developments.	CONSISTENT. The Project site would include bicycle and pedestrian connections and support the use of alternative travel modes. The proposed office uses would be accessible from existing and proposed residential, office/R&D, and mixed-use developments by way of new bicycle lanes and sidewalks, which would be constructed throughout the Project site.
Policy 5.8.4-P3: Link city pedestrian and bicycle circulation to existing and planned regional networks.	CONSISTENT. Refer to Policy 5.8.4-P1. Kylli Drive East and West would contain appropriate pedestrian facilities. In addition, bicycle lanes would be constructed along Tasman Drive, Patrick Henry Drive, Old Ironsides Drive, Kylli Drive East and West, and along the new Santa Clara Trail.
Policy 5.8.4-P5: Design streets to include detached sidewalks with planting strips or wider, attached sidewalks with tree-wells to encourage pedestrian use and safety, as well as to remove barriers and increase accessibility.	CONSISTENT. The Project would construct new and improved sidewalks and bicycle facilities along the Project frontage and within the Project site. Landscaping would make use of selected species that provide shade and visual interest, with minimal root damage to sidewalks, leaf litter, and fruit drop to promote bicyclist and pedestrian use.
Policy 5.8.4-P6: Require new development to connect individual sites with existing and planned bicycle and pedestrian facilities, as well as with onsite and neighborhood amenities/services, to promote alternate modes of transportation.	CONSISTENT. Refer to Policy 5.8.4-P1.
5.8.4-P7: Require new development to provide sidewalks, street trees, and lighting on both sides of all streets in accordance with City standards, including new developments in employment areas.	CONSISTENT. The Project would include construction of Kylli Drive East and West as well as the construction of new bicycle lanes and sidewalks that would connect to public amenities and destinations. The new streets and sidewalks would meet City goals and standards. Lighting for surface parking lots and parking structures would be provided in accordance with City standards.
Policy 5.8.4-P8: Require new development and public facilities to provide improvements, such as sidewalks, landscaping and bicycling facilities, to promote pedestrian and bicycle use.	CONSISTENT. Refer to Goal 5.8.4-G1.

General Plan Goal/Policy	Consistency Analysis
Policy 5.8.4-P9: Encourage pedestrian- and bicycle-oriented amenities, such as bicycle racks, benches, signalized mid-block crosswalks, and bus benches or enclosures.	CONSISTENT. The Project would include bicycle- and pedestrian-oriented amenities. Accessible open space areas would include different components to encourage public access, providing a retail edge with spill-out seating from restaurants, benches, bike racks, public art, planters, bus and pedestrian facilities, and bulb-outs.
Policy 5.8.4-P10: Encourage safe, secure and convenient bicycle parking and end-of-trip, or bicycle "stop" facilities, such as showers or bicycle repair near destinations for all users, including commuters, residents, shoppers, students and other bicycle travelers.	CONSISTENT. Through its bicycle- and pedestrian-oriented amenities, the Project would encourage safe, secure, and convenient bicycle parking as well as the provision of other types of facilities near destinations for all users, including residents, shoppers, and bicyclists. Bicycle amenities and lanes would follow the City of Santa Clara Bicycle Master Plan Update 2018 guidelines; bicycle parking would adhere to the City's Zoning Code bicycle parking requirements and be distributed throughout the Project site.
Policy 5.8.4-P11: Provide pedestrian crossings that are well-marked using measures, such as audio/visual warnings, bulb-outs and median refuges, to improve safety.	CONSISTENT. Well-marked pedestrian crossings would be provided along Kylli Drive East and West and at each intersection along the perimeter of the Project site. The crossings could include audio/visual warnings, consistent with Americans with Disabilities Act (ADA) standards; bulb-outs; and median refuges.
Policy 5.8.4-P13: Promote pedestrian and bicycle safety through "best practices" or design guidelines for sidewalks, bicycle facilities, landscape strips and other buffers, as well as crosswalk design and placement.	CONSISTENT. The Project would promote bicycle and pedestrian safety at the Project site, consistent with City requirements. Project development would be required to adhere to the design guidelines and development standards adopted as part of the Project's Planned Development zoning.
Transportation Demand Management Goals and Policies	
Goal 5.8.5-G1: Transportation demand management programs for all new development in order to decrease vehicle miles traveled and single occupant vehicle use.	CONSISTENT. The Project would implement a TDM plan to reduce the number of vehicle trips on the Project site. Onsite design measures may include preferred carpool and vanpool parking. Participation by major employers in programs that would reduce the amount of driving would be encouraged, potentially including efforts that would promote private commuter bus service, carpooling, vanpooling, ride-sharing, subsidized transit passes for employees, secure bicycle facilities, telecommuting, and flexible work schedules.
Goal 5.8.5-G2: Transportation demand management programs that promote an increase in vehicle occupancy and a decrease in vehicle trips during commute hours.	CONSISTENT. Refer to Goal 5.8.5-G1. A TDM plan would be established and implemented by the Project Sponsor to increase vehicle occupancy and decrease the number of vehicle trips during commute hours. Participation by major employers in programs that would reduce the amount of driving would be encouraged, potentially including efforts such as promoting private commuter bus service, carpooling, vanpooling, ride-sharing, subsidized transit passes for employees, secure bicycle facilities, telecommuting, and flexible work schedules.

General Plan Goal/Policy	Consistency Analysis
Policy 5.8.5-P1: Require new development and city employees to implement transportation demand management programs that can include site-design management site-design measures, including preferred carpool and vanpool parking, enhanced pedestrian access, bicycle storage and recreational facilities.	CONSISTENT. Refer to Goal 5.8.5-G1. Onsite design measures may include preferred carpool and vanpool parking as well as enhanced pedestrian access, bicycle storage, and recreational facilities. Participation by major employers in programs that would reduce the amount of driving would be encouraged, potentially including efforts such as promoting private commuter bus service, carpooling, vanpooling, ride-sharing, subsidized transit passes for employees, secure bicycle facilities, telecommuting, and flexible work schedules.
Policy 5.8.5-P2: Require development to offer onsite services, such as ATMs, dry cleaning, exercise rooms, cafeterias and concierge services, to reduce daytime trips.	CONSISTENT. The Project site would include onsite services. Although the exact types of neighborhood services are currently unknown, it is likely that the Project site could include ATMs, dry-cleaning facilities, exercise rooms, cafeterias, and concierge services. In addition, the Project would include a day-care facility that would reduce the number of trips by parents who live and/or work onsite.
Policy 5.8.5-P3: Encourage all new development to provide onsite bicycle facilities and pedestrian circulation.	CONSISTENT. Refer to Goal 5.8.4-G1.
Policy 5.8.5-P4: Encourage new development to participate in shuttle programs to access local transit services within the city, including buses, light rail, Bay Area Rapid Transit, Caltrain, Altamont Commuter Express Yellow Shuttle and Lawrence Caltrain Bowers/Walsh Shuttle services.	CONSISTENT. The Project would provide programs through the TDM plan to facilitate access to local transit services within the City, including buses, light rail, and Altamont Corridor Express. In addition, onsite bus/shuttle stops and passenger drop-off zones for rideshare users within the Project site would allow for transit, shuttle, or other micro-transit services (whether provided by VTA, a transportation management agency, or a private provider).
Policy 5.8.5-P5: Encourage transportation demand management programs that provide incentives for the use of alternative travel modes to reduce the use of single-occupant vehicles.	CONSISTENT. A TDM plan would include incentives for the use of alternative travel modes to reduce the number of single-occupant vehicles. Refer to Goal 5.8.5-G1.
Policy 5.8.5-P6: Encourage transportation demand management programs that include shared bicycle and autos for part-time use by employees and residents to reduce the need for personal vehicles.	CONSISTENT. A TDM plan would be developed that could include shared bicycle and automobiles for part-time use by employees and residents to reduce the need for personal vehicles.
Policy 5.8.5-P7: Promote programs that reduce peak hour trips, such as flexible work hours, telecommuting, home-based businesses and offsite business centers, and encourage businesses to provide alternate, off-peak hours for operations.	CONSISTENT. A TDM plan would be developed that would reduce the number of peak-hour trips. Refer to Goal 5.8.5-G1.

General Plan Goal/Policy	Consistency Analysis
Policy 5.8.5-P9: Promote transportation demand management programs that provide education, information and coordination to connect residents and employees with alternate transportation opportunities.	CONSISTENT. A TDM plan would be developed to provide residents and employees with information regarding alternate transportation opportunities. Refer to Goal 5.8.5-G1.
Parking Goals and Policies	
Goal 5.8.6-G1: Parking provided for new development and along public streets that does not exceed average demands.	CONSISTENT. As described in Chapter 2, *Project Description,* the Project's parking would be located in underground parking structures and in above-grade parking podiums. A small amount of on-street parking would be provided in addition to parking provided in accordance with the parking ratios and would be provided for short-term use. The Project would comply with parking ratios adopted as part of the Project's Planned Development zoning. Because of the opportunity for shared parking at the Project site, the overall parking ratios at the site would be lower than the City Code requirements that would otherwise have been applied. Therefore, the parking supply needed onsite would be less than the City Code requirements. The Project's parking supply rates are informed by the City Code parking supply rates, with adjustments for the shared-use nature of a mixed-use development. Parking would not exceed average demands.
Goal 5.8.6-G2: A parking supply that encourages the use of alternate transportation modes.	CONSISTENT. A new parking standard would be adopted as part of the Project's Planned Development zoning. Because of the opportunity for shared parking at the Project site, parking ratios would be lower than the City Code requirements that would otherwise have been applied. By not providing excess parking, and by implementing a TDM plan, the Project would encourage the use of alternative travel modes to reduce the number of single-occupant vehicles. In addition, the Project would implement a shared parking model that would reduce the Project area devoted to vehicle parking, thereby promoting a compact, walkable environment that would reduce VMT.
Policy 5.8.6-P1: Allow alternate parking standards for mixed-use development, development that meets specified transportation demand management criteria, and senior/group and affordable housing developments, as well as in the Downtown and areas within one-quarter mile of transit centers and stops.	CONSISTENT. As a mixed-use development, the Project would include alternative (i.e., shared) parking standards. The parking ratios for office/lab space, residential uses, and retail space are less than the code requirements in effect in other areas. The reduced parking ratios reflect the efficiency of shared parking in a mixed-use development, the site's proximity to transit services, as well as reductions in vehicle ownership due to TDM strategies, such as unbundled parking, that would be implemented by the Project.

General Plan Goal/Policy	Consistency Analysis
Policy 5.8.6-P2: Identify parking supply standards that promote economic development, neighborhood compatibility, environmental quality and public safety, while reducing dependence on the automobile.	CONSISTENT. The Project's parking supply rates are informed by the City Code parking supply rates, with adjustments for the shared-use nature of a mixed-use development. By not providing excess parking, and by implementing a TDM plan, the new parking supply requirements consider potential economic development at the Project site, neighborhood compatibility, environmental quality, and public safety.
Policy 5.8.6-P3: Encourage flexible parking standards that meet business and resident needs as well as avoid an oversupply in order to promote transit ridership, bicycling and walking.	CONSISTENT. The Project's parking supply rates are designed to meet business, employee, and resident needs while also avoiding an oversupply of parking. The Project's TDM plan would promote transit ridership, bicycling, and walking.
Policy 5.8.6-P4: Encourage shared, consolidated and/or reduced parking in mixed-use centers and within one-quarter mile of transit centers and stops.	CONSISTENT. The Project would include a mixed-use center within 0.25 mile of transit stops. A new parking standard would be provided as part of the Project's adopted Planned Development zoning. Because of the opportunity for shared parking at the Project site, the overall parking ratios at the Project site would be lower than the City Code requirements that would otherwise have been applied. The Project's shared parking model supports reduced parking ratios for the office/lab space, residential uses, and retail space. By not providing excess parking, and by implementing a TDM plan, the Project would encourage the use of alternative travel modes to reduce the number of single-occupant vehicles.
Policy 5.8.6-P5: Allow alternative parking techniques, such as parking lifts, automated and tandem parking, in order to reduce the land area devoted to parking.	CONSISTENT. The Project would include parking below street level and in parking structures to reduce the amount of land area devoted to parking. To ensure the efficiency of shared parking, available parking technology, including an internal wayfinding system to guide drivers to available spaces, could be implemented. Other parking management techniques that may be implemented include the elimination of outside gates and the use of license plate recognition, mobile apps, various car lifts/stackers, and/or valets. Alternative parking techniques, such as parking lifts, automated parking, and tandem parking, could be considered (but may not ultimately be implemented) for the Project.
Policy 5.8.6-P9: Consider neighborhood parking programs, such as "permit-only" and timed parking zones, to minimize parking intrusion on residential streets.	CONSISTENT. The Project would create a mixed-use development. Residential uses would be located in Area D, along with commercial and retail development. Neighborhood parking programs, such as permit-only and timed parking zones, would be considered (but may not ultimately be implemented) for the Project. There are no existing neighborhoods that would be affected by Project parking; all parking would be provided at the Project site.

General Plan Goal/Policy	Consistency Analysis
Policy 5.8.6-P13: Restrict lighting and noise generation associated with surface and structured parking from intrusion into adjacent residential neighborhoods.	CONSISTENT. Lighting for surface parking, and above- and below-grade parking structures is essential for security and safety purposes; therefore, it would be provided as part of the Project design. There are no existing adjacent residential neighborhoods that would be affected by light and noise from the proposed surface parking and parking structures. Regarding noise, the nearest offsite noise-sensitive uses are the residences along Calabazas Creek, approximately 700-, 1,525-, 600-, and 1,350-feet west of the nearest structures that would be developed on Areas A, B, C, and D, respectively. At the nearest offsite noise-sensitive receptors, the noise level from vehicles operating within a parking garage at Areas A, B, C, and D could be up to 39-, 29-, 38-, and 31-dBA (A-weighted Decibel), respectively. At future onsite residences, noise from the parking garage in Area A at a distance of 140 feet would be approximately 52.8 dBA. Under cumulative conditions, there would be more noise-sensitive land uses in the future when the Patrick Henry Specific Plan is completed, but those new residential units would be located a greater distance from the Project site than the distance used to evaluate impacts from other operational sources on onsite residential uses at the Project Site. Thus, impacts would be less severe for the Patrick Henry Specific Plan residences because of the greater distance. Therefore, noise from parking structure activity would not be expected to exceed the City's criteria of 55 dBA and 50 dBA at residential receptors during daytime and nighttime hours, respectively.
Policy 5.8.6-P14: Require new multi-family residential and non-residential development to accommodate electric vehicle charging stations in parking lots.	CONSISTENT. A new parking standard would be provided as part of the Project's adopted Planned Development zoning. The Project would comply with the EV charging requirements specified in the City's reach code, as 25 percent and 75 percent of the residential parking spaces would be Level 2 Ready and lower power Level 2 Ready, respectively; 35 percent of the nonresidential parking spaces would be equipped with Level 2 Electric-Vehicle Supply Equipment; and 35 percent of the nonresidential parking spaces would be Level 2 Capable.
Policy 5.8.6-P15: Require new parking lots to be surfaced with materials to reduce heat gain, consistent with the building code and CAP.	CONSISTENT. Refer to Policy 5.3.1-P33. The Project does not propose surface parking lots.
Rail and Freight Goals and Policies	
Goal 5.8.7-G2: Neighborhoods protected from negative effects associated with rail and freight services.	CONSISTENT. Amtrak's Capital Corridor and Altamont Corridor Express operate in the UPRR ROW and provide service to the Project site and surrounding areas from Great America Station, located at Lafayette Street and Tasman Drive. Freight trains also utilize the tracks. Great America Station and the UPRR track are approximately 0.3 mile east of the Project site and would not negatively affect residential uses proposed as part of the Project.
Policy 5.8.7-P5: Require new development to implement appropriate measures to reduce the negative effects, such as noise and vibration, of rail and freight services.	CONSISTENT. As described above, Great America Station and the UPRR track are approximately 0.3 mile east of the Project site and would not negatively affect residential uses proposed as part of the Project.

General Plan Goal/Policy	Consistency Analysis
Parks, Open Space, and Recreation Goals and Policies	
Goal 5.9.1-G2: Parks, trails and open space located within a ten-minute walk to residential neighborhoods and employment centers.	CONSISTENT. The Project site is a 10-minute walk from the Calabazas Creek Trail and San Tomas Aquino Creek Trail. The Project proposes a Neighborhood Park as well as publicly and privately accessible open space and the new Santa Clara Trail. Therefore, residents and employees at the Project site would have access to parks, trails, and open space for active and passive recreation.
Goal 5.9.1-G3: New parks, open space and recreation provided with new development so that existing facilities are not overburdened.	CONSISTENT. The Project site would include open space areas as well as spaces for recreation. Publicly accessible parkland and open space areas at the Project site would cover up to 16 acres and provide a range of landscape types, including gathering spaces , experiential spaces, recreational spaces (for passive and active recreation, children's play features), and ecological spaces (drainage areas, stormwater retention areas). In addition, the Project site would facilitate linkages to the regional Calabazas Creek Trail and San Tomas Aquino Creek Trail. The Project's proposed open spaces and landscape features would enhance the public realm and meet the recreational needs of multiple users.
Policy 5.9.1-P3: Provide trails along creeks and other rights-of-way to link parks, open spaces, bicycle facilities, and transit services with residential neighborhoods and employment centers.	CONSISTENT**.** The Project would construct a multi-use trail along the southern edge of the site adjacent to the San Francisco Public Utilities Commission ROW. Furthermore, the Project would include a central green spine that would connect the Project's Neighborhood Park and the neighboring Patrick Henry Drive Specific Plan area. The Project's proposed pedestrian and bicycle circulation would facilitate connections to nearby parks, open spaces, bicycle facilities, transit services, neighborhoods, and employment centers.
Policy 5.9.1-P4: Provide connections between private and public open space through publicly accessible trails and pathways and by orienting open spaces to public streets.	CONSISTENT. The Project's proposed bicycle and pedestrian circulation would facilitate connections to open spaces within the Project site as well as public parks and open spaces beyond the Project boundaries. The Project would include a multi-use trail, the Santa Clara Trail, along the southern boundary of the site, facilitating linkages to Calabazas Creek Trail, the John W. Christian Greenbelt, San Tomas Aquino Creek Trail, and Guadalupe River Trail. Within the Project site, a Neighborhood Park would extend in a north–south direction from the Gateway Park Area, near the Old Ironsides light rail stop on Tasman Drive, to the South Park and Santa Clara Trail areas.
Policy 5.9.1-P14: Encourage publicly accessible open space in new development.	CONSISTENT. Refer to Policy 5.9.1-G3. .
Policy 5.9.1-P16: Encourage non-residential development to contribute toward new park facilities to serve the needs of their employees.	CONSISTENT. The Project would include residential and non-residential development. Areas A, B, and C would not include residential uses but would include open space to serve the needs of employees. The open spaces and parkland in these areas would vary in size and would be oriented toward the center of the Project site, creating central gathering spaces. Pedestrian circulation would be encouraged between buildings to promote connectivity.

General Plan Goal/Policy	Consistency Analysis
Policy 5.9.1-P17: Foster site design for new development so that building height and massing do not overshadow new parks and plazas.	CONSISTENT. Buildings would be up to 20 stories and could overshadow new parks and green areas/plazas. However, as detailed in the Project's shadow plan, the different open spaces and green areas/plazas would not be affected by shadow cast by the Project at different times of the day. In addition, the Project has been designed to prevent building heights and massing to overshadow new parks and green areas/plazas to the maximum extent feasible.
Policy 5.9.1-P18: Promote open space and recreation facilities in large-scale developments in order to meet a portion of the demand for parks generated by new development.	CONSISTENT. Refer to Policy 5.9.1-G3.
Conservation Goals and Policies	
Goal 5.10.1-G1: The protection of fish, wildlife and their habitats, including rare and endangered species.	CONSISTENT. Section 3.8, *Biological Resources*, discusses the Project's potential to affect fish or wildlife and their habitat. No special-status plant species, other than nesting birds and bats, have been documented on the Project site. However, the existing ornamental trees and ruderal land cover in the Project site's parking lot margins, medians, and landscaped areas could provide nesting and foraging habitat for Cooper's hawk, and red-tailed hawk, roosting bats, and other migratory birds, which could also nest in the shrubs throughout the site. Although they could be affected during construction, Mitigation Measures BIO-4.1 (Protect Nesting Birds) and BIO-1.1 (Protect Roosting Bats) would reduce impacts. In addition, Mitigation Measure BIO-4.2 (Implement Bird-Safe Design Standards into Project Buildings and Lighting Design) would reduce impacts related to bird collisions with the proposed buildings during Project operations.
Goal 5.10.1-G2: Conservation and restoration of riparian vegetation and habitat.	CONSISTENT. There are no riparian or sensitive plant communities on the Project site. Riparian vegetation grows along Calabazas Creek approximately 0.1 mile west of the site, but the Project would not result in any disturbance of this community.
Goal 5.10.1-G3: Adequate solid waste disposal capacity through effective programs for recycling and composting.	CONSISTENT. The Project includes a construction and demolition plan that calls for approximately 90 to 95 percent of demolition materials to be recycled. Demolition material from the Project site that is recyclable would most likely be recycled at the Stevens Creek Quarry and the Zanker Material Processing Facility. Organic materials removed during clearing and grubbing would be reused onsite in landscaped areas. As discussed in Section 3.15, the Project would reduce the amount of operational waste that goes to landfills and be coordinated according to the capabilities of the City's contracted waste management firm.

General Plan Goal/Policy	Consistency Analysis
Goal 5.10.1-G4: Adequate wastewater treatment and conveyance capacities.	CONSISTENT. Rehabilitation and expansion of existing sanitary sewer systems would be required with implementation of the Project. As described in Section 3.15, *Utilities and Service Systems*, the Project proposes two sewer system layouts to connect to the City's existing sewer system, which currently serves the Project site and includes three 12-inch lines within adjacent roadway ROWs that ultimately connect to the Tasman Lift Station at the southwest corner of Tasman Drive and Great America Parkway. Under Sewer Option 2A, the existing sewers along Patrick Henry Drive and Old Ironside Drive would remain in place, and the existing Tasman Drive 12-inch sewer line would be abandoned in place. In its place, a new Tasman Drive 15-inch sewer line would discharge into the existing 12-inch sewer along Tasman Drive and continue east to the Tasman Lift Station. In addition, a proposed private sewer would be constructed along the Hetch Hetchy ROW, with the option to include a new sewer along Old Ironside Drive. The new sewer would be located north of the existing Tasman Drive 12-inch sewer. Under Sewer Option 3A, wastewater would drain into a private sewer within the Project area running south to north along the center of the Project site. An onsite lift station would be constructed between Areas A and B, then lifted into an onsite private sewer to a new sewer along Old Ironside Drive and drain by gravity into the Great America Parkway west trunk. A new sewer along Tasman Drive would convey flows from the adjacent parcels on the west. The new sewer would connect to the existing Tasman Drive 12-inch sewer and continue east to drain into the Tasman Lift Station.
Policy 5.10.1-P1: Require environmental review prior to approval of any development with the potential to degrade the habitat of any threatened or endangered species.	CONSISTENT. This Draft EIR represents the environmental review for the Project. Section 3.8, *Biological Resources*, discusses the Project's potential to degrade the habitat of any threatened or endangered species. Although, Cooper's hawk, red-tailed hawk, roosting bats, and other migratory birds could be affected as a result of the Project, Mitigation Measures BIO-4.1 (Protect Nesting Birds), BIO-4.2 (Implement Bird-Safe Design Standards into Project Buildings and Lighting Design), and BIO-1.1 (Protect Roosting Bats) would reduce the impacts on these species.
Policy 5.10.1-P2: Work with Santa Clara Valley Water District and require that new development follow the "Guidelines and Standards for Lands Near Streams" to protect streams and riparian habitats.	CONSISTENT. The Project Sponsor has coordinated the preliminary Project plan with the Santa Clara Valley Water District and will continue to coordinate as the plan evolves. As required, the Project Sponsor would follow the guidelines and standards for lands near streams to protect streams and riparian habitats.

General Plan Goal/Policy	Consistency Analysis
Policy 5.10.1-P4: Protect all healthy cedars, redwoods, oaks, olives, bay laurel and pepper trees of any size, and all other trees over 36 inches in circumference measured from 48 inches above-grade on private and public property as well as in the public ROW.	CONSISTENT. The Project would result in the removal of all trees at the Project site; this would result in the loss of approximately 350 trees, 17 of which are protected. The Project Sponsor would be required to replace these protected trees on the Project site or at offsite locations at the City's required ratios of 2:1 (for 24-inch box trees) or 4:1 (for 15-gallon trees). Dead or unsuitable trees are required to be replaced at a 1:1 ratio.
Policy 5.10.1-P6: Require adequate wastewater treatment and sewer conveyance capacity for all new development.	CONSISTENT. Refer to Goal 5.10.1-G4.
Policy 5.10.1-P7: Encourage the use of local recycling facilities to divert waste from landfills.	CONSISTENT. Refer to Goal 5.10.1-G3.
Policy 5.10.1-P8: Increase to 80 percent reduction for solid waste tonnage by 2020, or as consistent with the CAP.	CONSISTENT. The goal to reduce solid waste by 80 percent is a citywide goal. The Project would contribute to this goal by diverting the majority of construction waste that normally goes to landfills. Although operation of the Project would occur after 2020, as discussed in Section 3.15, the Project would reduce the amount of landfill waste through reduction strategies and recycling.
Policy 5.10.1-P9: Encourage curbside recycling and composting of organic and yard waste.	CONSISTENT. Operation of the Project would comply with the requirements of SB 1383 regarding organic recycling and include recycling and waste reduction strategies, such as an onsite composting program.
Policy 5.10.1-P10: Promote the reduction, recycling and safe disposal of household hazardous wastes through public education and awareness and through an increase in hazardous waste collection events.	CONSISTENT. As described in more detail in Section 3.11, *Hazards and Hazardous Materials*, the Project would include the use of small quantities of commercially available hazardous materials, such as household cleaning and landscaping supplies as well as diesel fuel for backup generators, and typical materials used in association with proposed R&D office and laboratory spaces. The relatively low toxicity and small quantities of these kinds of hazardous materials do not generally pose a threat to human health or the environment. The management of larger quantities of hazardous materials is subject to laws and regulations, particularly those of the Certified Unified Program Agency (CUPA), as overseen by the City's Community Risk Reduction Division. The CUPA ensures that facilities properly manage and disclose information regarding the hazardous materials they use to minimize the risk of a hazardous materials release and improve emergency response actions in the event of a release. Compliance with existing regulations is mandatory.
Policy 5.10.1-P11: Require use of native plants and wildlife-compatible non-native plants, when feasible, for landscaping on City property.	CONSISTENT. Under the Project, parkland and open space landscaping would include native and drought-resistant plants and flow-through planters whenever possible.

General Plan Goal/Policy	Consistency Analysis
Policy 5.10.1-P12: Encourage property owners and landscapers to use native plants and wildlife-compatible non-native plants, when feasible.	CONSISTENT. Refer to Policy 5.10.1-P11.
Air Quality Goals and Policies	
Goal 5.10.2-G1: Improved air quality in Santa Clara and the region.	CONSISTENT. The goal of improved air quality in Santa Clara and the region is a citywide goal. The City supports improved air quality through a wide range of activities and encourages higher-density development in transit-rich locations. Furthermore, it applies all feasible mitigation and best management practices to new development projects. The Project would reduce the demand for motor vehicle travel by locating a high-density, mixed-use development in an infill and transit-rich location, promoting transportation efficiency, implementing a TDM plan, and exploring alternative transit methods. BAAQMD recognizes that air quality is a cumulative problem, which BAAQMD's 2017 Clean Air Plan aims to address. As discussed in Section 3.3, *Air Quality*, the Project would support the goals of the 2017 Clean Air Plan and include all applicable control measures. It would not conflict with implementation of the 2017 Clean Air Plan. Therefore, the Project supports local, regional, and State air quality and GHG reduction objectives to reduce VMT and emissions.
Goal 5.10.2-G2: Reduced greenhouse gas emissions that meet the State and regional goals and requirements to combat climate change.	CONSISTENT. As discussed in Section 3.4, *Greenhouse Gas Emissions*, the Project's construction GHG emissions would be less than significant with the implementation of Mitigation Measure GHG-1.1. Regarding the Project's operational GHG emissions, the Project would be consistent with all applicable and required CAP checklist measures and would thus be consistent with the City's 2022 CAP. Therefore, the Project would meet the State and regional goals and requirements to combat climate change.
Policy 5.10.2-P1: Support alternative transportation modes and efficient parking mechanisms to improve air quality.	CONSISTENT. The Project would support alternative transportation modes and efficient parking mechanisms to improve air quality. New bicycle and pedestrian facilities proposed for the Project site would connect it to regional bus and rail systems, including VTA, Amtrak's Capitol Corridor, and Altamont Corridor Express. With the proposed pedestrian connections, the Project site would be within walking distance from several VTA light rail stations and Great America Station on the UPRR ROW. Easy connections and accessibility to public transportation stations would help reduce the number of vehicle trips and air quality emissions. In addition, the Project would include electric-vehicle charging stations and reduce parking ratios through the use of unbundled parking for market-rate residential units, as well as shared parking, to reduce the Project area devoted to parking. Furthermore, the Project would implement TDM strategies, including strategies such as participation in last-mile and long-haul shuttle services, transit subsidies for office workers, and rideshare matching programs to reduce VMT, consistent with the City's CAP goals for greenhouse gas reductions.

General Plan Goal/Policy	Consistency Analysis
Policy 5.10.2-P2: Encourage development patterns that reduce vehicle miles traveled and air pollution.	CONSISTENT. The goal of encouraging development patterns that reduce VMT and air pollution is a citywide goal. The City supports development patterns that reduce VMT and related air pollution by encouraging higher-density development in transit-rich locations and applying all feasible mitigation and best management practices to new development projects. As discussed in Section 3.2, *Transportation*, the Project qualifies as a transit-supportive project because it meets the criteria established by the City related to proximity to transit, density, multimodal transportation networks, transit-oriented design elements, parking, and affordable housing. The Project site would be located adjacent to transit stations, which could be used by onsite residents and employees for commuting to the Project site. In addition, regional trail networks are adjacent to the Project site. Bicycle and pedestrian connections would link the Project site to these alternative modes of transportation and trails. As discussed in Section 3.3, *Air Quality*, BAAQMD recognizes that air quality is a cumulative problem, which BAAQMD's 2017 Clean Air Plan aims to address. The Project would support the goals of the 2017 Clean Air Plan, including all applicable control measures, and would not conflict with implementation of the 2017 Clean Air Plan.
Policy 5.10.2-P3: Encourage implementation of technological advances that minimize public health hazards and reduce the generation of air pollutants.	CONSISTENT. The goal of encouraging implementation of technological advances that minimize public health hazards and reduce the generation of air pollutants is a citywide goal. The Project would support this goal through implementation of Mitigation Measures AQ-2.3 through AQ-2.6, which would reduce air pollutant emissions through technological advances such as requiring electric landscaping equipment and Tier 4 Final stationary emergency generators, if commercially available in a timely manner. The Project would comply with the City's Reach Code and make 25 percent of the nonresidential parking spaces and 75 percent of the residential parking spaces Level 2 Ready and Lower-Power Level 2 Ready, respectively. In addition, 35 percent of the nonresidential parking spaces would have Level 2 electric-vehicle supply equipment, and 35 percent of the nonresidential parking spaces would be Level 2 Capable. In addition, the Project Sponsor would pursue Leadership in Energy and Environmental Design (LEED) for Neighborhood Development (LEED-ND) Silver certification or equivalent, LEED Gold certification or equivalent for the proposed offices, and LEED Silver-certified or equivalent for the residential buildings. The Project's dense infill and open space design would encourage alternative transit modes, which support public health goals and objectives.
Policy 5.10.2-P4: Encourage measures to reduce greenhouse gas emissions to reach 30 percent below 1990 levels by 2020.	CONSISTENT. As discussed in Section 3.4, *Greenhouse Gas Emissions*, the Project would be consistent with the City's 2022 Climate Action Plan, which may be relied upon to demonstrate consistency with CARB's 2022 Scoping Plan. The 2022 Scoping Plan outlines strategies for achieving SB 32's objective of reducing emissions to least 40 percent below 1990 levels by 2030.

General Plan Goal/Policy	Consistency Analysis
Policy 5.10.2-P5: Promote regional air pollution prevention plans for local industry and businesses.	CONSISTENT. Refer to Goal 5.10.2-G1.
Policy 5.10.2-P6: Require "best management practices" for construction dust abatement.	CONSISTENT. Mitigation Measure AQ-2.2, as presented in Section 3.3, *Air Quality*, requires measures to reduce construction-related dust emissions. The Project Sponsor would require all construction contractors to implement these measures to reduce fugitive dust emissions. The measures include, but are not limited to, watering to retain soil moisture, covering hauling trucks, and limiting idling times for equipment.
Energy Goals and Policies	
Goal 5.10.3-G1: Energy supply and distribution maximizes the use of renewable resources.	CONSISTENT. The Project would include an onsite solar panel system. The energy reduction strategies that would be implemented include energy efficiency measures for the building envelope, HVAC, and lighting. The Project Sponsor would also obtain LEED certification or equivalent as part of the Project. The Project Sponsor would pursue LEED-ND Silver certification or equivalent, LEED Gold certification or equivalent for the proposed office/R&D buildings, and LEED Silver or equivalent for the proposed residential buildings.
Goal 5.10.3-G2: Implementation of energy conservation measures to reduce consumption.	CONSISTENT. The Project Sponsor would obtain LEED certification or equivalent as part of the Project. The Project Sponsor would pursue LEED-ND Silver certification or equivalent, LEED Gold certification or equivalent for the proposed office/R&D buildings, and LEED Silver or equivalent for the proposed residential buildings. The energy reduction strategies that would be implemented include energy efficiency measures for the building envelope; heating, ventilation, and air-conditioning (HVAC); and lighting.
Policy 5.10.3-P1: Promote the use of renewable energy resources, conservation and recycling programs.	CONSISTENT. The Project would include an onsite solar panel system. The energy reduction strategies that would be implemented include energy efficiency measures for the building envelope, HVAC, and lighting. In addition, as discussed in Chapter 3.15, *Utilities and Service Systems*, the Project would implement recycling and composting programs to reduce the amount of operational waste that goes to the landfill.
Policy 5.10.3-P3: Maximize the efficient use of energy throughout the community by achieving adopted electricity efficiency targets and promoting natural gas efficiency, consistent with the CAP.	CONSISTENT. Compliance with LEED certification standards or equivalent, as described above, would help to achieve the desired electrical and natural gas efficiencies. LEED certification or equivalent is part of the Project. As discussed in Section 3.4, *Greenhouse Gas Emissions*, the Project would be consistent with the City's CAP.
Policy 5.10.3-P4: Encourage new development to incorporate sustainable building design, site planning and construction, including encouraging solar opportunities.	CONSISTENT. Compliance with LEED certification standards or equivalent, as described above; compliance with CALGreen; inclusion of an onsite solar panel system; and incorporation of specific design features, such as those regarding the orientation of the proposed buildings, would help achieve the desired sustainable building design, site planning, and construction practices.

General Plan Goal/Policy	Consistency Analysis
Policy 5.10.3-P5: Reduce energy consumption through sustainable construction practices, materials and recycling.	CONSISTENT. Compliance with the LEED certification standards or equivalent associated with sustainable construction practices, material selections, and recycling would help reduce energy consumption.
Policy 5.10.3-P6: Promote sustainable buildings and land planning for all new development, including programs that reduce energy and water consumption in new development.	CONSISTENT. Compliance with the LEED certification standards or equivalent, as described above, would include incorporating sustainable planning and building features, which would reduce both energy and water consumption. The Project would incorporate features to reduce per capita water use, such as low-flow fixtures and native drought-resistant plants. In addition to using recycled water for irrigation, other water-saving techniques could be applied to mechanical cooling systems and toilet flushing.
Policy 5.10.3-P7: Encourage installation of solar energy collection through solar hot water heaters and photovoltaic arrays.	CONSISTENT. The Project would include an onsite solar panel system.
Policy 5.10.3-P8: Provide incentives for LEED certified, or equivalent development.	CONSISTENT. As described above, the Project Sponsor would pursue LEED-ND Silver certification or equivalent, LEED Gold certification or equivalent for the proposed office/R&D buildings, and LEED Silver or equivalent for the proposed residential buildings.
Policy 5.10.3-P9: Incorporate criteria for sustainable building and solar access into the City's ordinances and regulations.	CONSISTENT. To meet the proposed LEED certification standards or equivalent, the Project Sponsor would incorporate criteria for sustainable building practices and solar access, per City ordinances and regulations.
Policy 5.10.3-P11: Continue innovative energy programs to develop cost effective alternative power sources and encourage conservation.	CONSISTENT. The Project would consider effective alternate means of energy generation, including the use of an onsite solar panel system. The energy reduction strategies that would be implemented include energy efficiency measures for the building envelope, HVAC, and lighting.
Policy 5.10.3-P12: Work with Silicon Valley Power to implement adequate energy distribution facilities to meet the demand generated by new development.	CONSISTENT. The Project includes a new substation as part of the design to meet the demand generated by new development. The substation is being developed in coordination with SVP. Once constructed, the energy distribution facilities would meet the demand generated by the Project.
Policy 5.10.3-P13: Work with Pacific Gas and Electric to ensure an adequate supply of natural gas to meet the demand generated by new development.	CONSISTENT. Although the City prohibits new connections to natural gas in most new construction under its recently adopted "Reach Code," the code contains limited exceptions, including R&D uses. Pacific Gas and Electric (PG&E) would be the service provider for natural gas to the Project site.
Policy 5.10.3-P14: Explore opportunities for alternative energy "fueling stations" and promote participation in shuttle services that use new technology vehicles to reduce greenhouse gas emissions.	CONSISTENT. The Project Sponsor could explore the inclusion of alternative energy fueling stations and shuttles that use new technology to reduce GHG emissions.

General Plan Goal/Policy	Consistency Analysis
Water Goals and Policies	
Goal 5.10.4-G1: A reliable, safe supply of potable water adequate to meet present and future needs.	CONSISTENT. The Project would include vacating the public ROW easement at Democracy Way, thereby requiring the removal and relocation of the existing 12-inch water main within the street. New water mains would be constructed to deliver water to the Project site. A new private 12-inch water line is proposed within the private Kylli Drive East and Kylli Drive West. New domestic and fire-services backflow preventers would also be installed between the Project site and Patrick Henry Drive and Old Ironsides Drive. The existing 8-inch recycled water lines in Patrick Henry Drive and Old Ironsides Drive would be replaced with 12-inch lines. When taking into account other approved development and Project water demand, along with existing demand, there is adequate projected water supply to provide water out to 2045 under normal-year, single-dry-year, and five-consecutive-dry-year scenarios. Similarly, projected water demand for reasonably foreseeable future development, including the Project, would also be met with the city's water supply. Therefore, there are available water supplies to meet cumulative demand when taking into account supply conditions as well as existing practices during drought years. As such, there is a safe supply of potable water for present and future needs.
Goal 5.10.4-G3: A reduction in the demand and consumption of water resources.	CONSISTENT. Recycled water is currently available at the Project site and at some of the reasonably foreseeable future development sites; therefore, the Project and future development could connect to the existing recycled water system. Project uses for recycled water could include office/R&D, retail, childcare, community amenity, and irrigation uses. These uses would have an overall water demand of approximately 405 acre-feet per year, which could be offset by the use of recycled water. In addition to using recycled water, the Project would also include a number of sustainability features to reduce water use. Such features would involve building and landscape rainwater capture and reuse; greywater reuse; the use of reclaimed wastewater onsite, low-flow plumbing fixtures, native drought-tolerant landscaping, and flow-through planters; and reductions in impermeable surfaces. All of these Project-specific sustainability features would help offset potable water demand from the Project.
Policy 5.10.4-P1: Promote water conservation through development standards, building requirements, landscape design guidelines, education, compliance with the State Water Conservation Landscaping Ordinance and other applicable City-wide policies and programs.	CONSISTENT. The Project would incorporate features to reduce per capita water use, such as low-flow fixtures and native drought-resistant plants. In addition, the Project would be required to comply with applicable development standards, building requirements, landscape design guidelines, the State Water Conservation Landscaping Ordinance, and City policies and programs.

General Plan Goal/Policy	Consistency Analysis
Policy 5.10.4-P2: Expand water conservation and reuse efforts throughout the city in order to meet the conservation goals in the City's adopted Urban Water Management Plan and CAP to reduce per capita water use by 2020.	CONSISTENT. The Project would incorporate features to reduce per capita water use, such as low-flow fixtures and native drought-resistant plants. In addition, the Project site would be irrigated with recycled water, which may also be used to meet indoor flushing and cooling demands. As such, the Project would include conservation and reuse efforts that would comply with the water conservation goals in the 2020 Urban Water Management Plan and the CAP.
Policy 5.10.4-P3: Promote water conservation, recycled water use and sufficient water importation to ensure an adequate water supply.	CONSISTENT. The Project site is currently connected to a recycled water system for irrigation of existing landscaping. The Project site would be irrigated with recycled water. Recycled water may also be used to meet commercial indoor flushing and cooling demands. The proposed recycled water distribution system for the Project site would be designed so that each connection would require City and State approval from an independent recycled water permitting process.
Policy 5.10.4-P4: Require an adequate water supply and water quality for all new development.	CONSISTENT. Refer to Goal 5.10.4-G1.
Policy 5.10.4-P5: Prohibit new development that would reduce water quality below acceptable State and local standards.	CONSISTENT. To prevent construction impacts on water quality, the Project would be designed to comply with the requirements of the Construction General Permit and the City. A Stormwater Pollution Prevention Plan to address the construction impacts would be prepared, implemented, and enforced. The Project would be designed and maintained in accordance with City, County, and San Francisco Bay Regional Water Quality Control Board water quality requirements. Therefore, the Project is not expected to reduce water quality below acceptable State and local standards.
Policy 5.10.4-P6: Maximize the use of recycled water for construction, maintenance, irrigation and other appropriate applications.	CONSISTENT. Refer to Policy 5.10.4-P3.
Policy 5.10.4-P7: Require installation of native and low-water-consumption plant species when landscaping new development and public spaces to reduce water usage.	CONSISTENT. The Project would conform to the City's landscape water efficiency regulations (as provided in the City's Regulation of Recycled Water Service and Use in Section 3.15, *Utilities and Service Systems*). In addition, Project landscaping would include native and drought-resistant plants to reduce water consumption.
Policy 5.10.4-P8: Require all new development within a reasonable distance of existing or proposed recycled water distribution systems to connect to the system for landscape irrigation.	CONSISTENT. Refer to Policy 5.10.4-P3.

General Plan Goal/Policy	Consistency Analysis
Policy 5.10.4-P10: Work with Santa Clara Valley Water District to minimize undesirable compaction of aquifers and subsidence of soils.	CONSISTENT. Depending on the amount of construction dewatering performed and the characteristics of the soil formations and overlying improvements within the area that would be affected by dewatering, there is potential for permanent subsidence to occur. Implementation of Mitigation Measures GEO-3.1 (Static Settlement, Subsidence, or Collapse) and WQ-1.1 (Dewatering) would ensure that potential subsidence due to construction dewatering would be evaluated in the design-level geotechnical report and the Dewatering Plan that would be prepared for the Project, which would be required to modify the proposed shoring systems and dewatering systems, as deemed necessary by Valley Water, to ensure sustainable management of the Santa Clara Subbasin.
Safety Goals and Policies	
Goal 5.10.5-G1: Protection of life, the environment and property from natural catastrophes and man-made hazards.	CONSISTENT. As presented in Section 3.9, *Geology and Soils*, because the Project site is located on alluvial deposits, settlement beneath buildings and other improvements could occur and result in man-made hazards. The placement of new structures, including residential and commercial buildings, in areas that would be subject to settlement could expose people to injury or death and result in substantial damage to physical improvements. Implementation of Mitigation Measure GEO-3.1 (Static Settlement, Subsidence, or Collapse) would reduce these impacts to less than significant. Project construction and excavation could expose construction workers to methane or volatile organic compounds (VOCs) in the soil, if encountered; however, implementation of Mitigation Measure HAZ-2.1 (Subsurface Contamination), as included in Section 3.11, *Hazards and Hazardous Materials*, would mitigate any potential exposure.
Policy 5.10.5-P1: Use the City's Local Hazard Mitigation Plan as the guide for emergency preparedness in Santa Clara.	CONSISTENT. The Project would be built to adhere to all City safety requirements and would not interfere with emergency response actions. The Project would not impair or interfere with the City's ability to implement emergency preparation or response actions described in the local Hazard Mitigation Plan or EOP.
Policy 5.10.5-P5: Regulate development, including remodeling or structural rehabilitation, to ensure adequate mitigation of safety hazards, including flooding, seismic, erosion, liquefaction and subsidence dangers.	CONSISTENT. The area of Democracy Way within the Project site and two areas within Old Ironsides Drive adjacent east of the Project site are mapped by the Federal Emergency Management Agency (FEMA) as being in Zone AO, a special flood hazard area subject to inundation by the 1-percent-annual-chance flood (usually sheet flow on sloping terrain), with a flooding depth of 1 foot. However, implementation of Mitigation Measures WQ-3.1 (Drainage and Flooding during Construction and Operation) and WQ-3.2 (Construction Stormwater Drainage) would ensure that potential construction impacts of the Project related to exceeding the capacity of existing or proposed stormwater drainage systems, flooding onsite or offsite, and impeding or redirecting floodflows would be less than significant with mitigation by requiring a hydraulic study to be prepared to evaluate the potential impacts; modifications to the Project design, if necessary; and implementation of a Construction-Period Stormwater Drainage Control Plan. The Project site is located in a seismically active region, and ground

General Plan Goal/Policy	Consistency Analysis
	shaking at the site may be strong to severe. However, proposed structures must meet the seismic design parameters of the California Building Code (CBC), as enforced by the City Building Official. The Project could also be subject to erosion, and settlement, but implementation of Mitigation Measure GEO-3.1 would reduce these impacts.
Policy 5.10.5-P6: Require that new development is designed to meet current safety standards and implement appropriate building codes to reduce risks associated with geologic conditions.	CONSISTENT. Final Project design plans that cover both the Project site and offsite areas would be submitted to the City Building Department. Project site structures would be designed to accommodate predicted ground settlement, as determined in the design-level geotechnical investigation for the Project improvements. In addition, Project site buildings and improvements would be constructed in accordance with the CBC at the time of development, as required by the City Municipal Code Title 15.
Policy 5.10.5-P7: Implement all recommendations and design solutions identified in project soils reports to reduce potential adverse effects associated with unstable soils or seismic hazards.	CONSISTENT. Preliminary geotechnical investigations have been prepared for the Project site. However, Mitigation Measure GEO-3.1, which calls for a design-level geotechnical investigation, would require further field exploration and design recommendations to minimize impacts related to seismic hazards and unstable soils. Under this mitigation measure, the Project Sponsor would be required to submit the Project Plans, and design-level geotechnical report to the City for review and approval, which would reduce potential adverse effects associated with these hazards.
Policy 5.10.5-P10: Support efforts by the Santa Clara Valley Water District to reduce subsidence.	CONSISTENT. Refer to Policy 5.10.4-P10.
Policy 5.10.5-P11: Require that new development meet stormwater and water management requirements in conformance with State and regional regulations.	CONSISTENT. The Project would comply with Santa Clara Valley Urban Runoff Pollution Prevention Plan (SCVURPPP) Provision C.3 requirements through the incorporation of low-impact development (LID) measures into the design to reduce runoff pollutant loads. Such measures could include bio-retention treatment areas (with underdrains); flow-through planters; tree wells with media filters; infiltration trenches (with underdrains); open spaces; catch basin filters; rainwater harvesting areas, with onsite re-use; and green streets. In addition, compliance with State, regional, and local regulations such as the Construction General Permit or other general NPDES permit, would ensure protection of surface water quality during construction activities.
Policy 5.10.5-P12: Continue to participate in the National Flood Insurance Program and encourage all property owners within flood hazard areas to carry flood insurance.	CONSISTENT. Refer to Policy 5.10.5-P5.
Policy 5.10.5-P13: Require that development complies with the Flood Damage Protection Code.	CONSISTENT. Refer to Policy 5.10.5-P5.

General Plan Goal/Policy	Consistency Analysis
Policy 5.10.5-P14: Coordinate with the Federal Emergency Management Agency to ensure appropriate designation and mapping of floodplains.	CONSISTENT. Refer to Policy 5.10.5-P5.
Policy 5.10.5-P15: Require new development to minimize paved and impervious surfaces and promote onsite best management practices for infiltration and retention, including grassy swales, pervious pavement, covered retention areas, bioswales, and cisterns, to reduce urban water run-off.	CONSISTENT. As listed in Section 3.10, *Hydrology and Water Quality*, the following stormwater treatment measures and BMPs would be considered as part of the design: planted open spaces, and in-street BMPs, such as curb-cut flow-through planters or equivalent stormwater reduction measures.
Policy 5.10.5-P16: Require new development to implement erosion and sedimentation control measures to maintain an operation drainage system, preserve drainage capacity and protect water quality.	CONSISTENT. BMPs would be implemented to prevent soil erosion. During construction, these measures would include protecting storm drain inlets, establishing and maintaining construction exits, and implementing perimeter controls. Post-Project runoff would not exceed estimated pre-Project rates.
Policy 5.10.5-P18: Implement the Santa Clara Valley Nonpoint Source Pollution Control Program, Santa Clara Valley Urban Runoff Pollution Prevention Program and the Urban Runoff Management Plan.	CONSISTENT. The Project would be required to comply with SCVURPPP (formerly known as the Santa Clara Valley Nonpoint-Source Pollution Control Program) Provision C.3 Stormwater Technical Guidance because it would involve the creation of an impervious surface area equal to 50 percent or more of the pre-Project impervious surface area. The Project would reduce total runoff rates through implementation of LID measures and, therefore, would be in compliance with Provision C.3.
Policy 5.10.5-P19: Limit development activities within riparian corridors to those necessary for improvement or maintenance of stream flow.	CONSISTENT. There are no riparian or sensitive plant communities on the Project site. Riparian vegetation grows along Calabazas Creek, approximately 0.1 mile west of the site, but the Project would not result in any disturbance of this community.
Policy 5.10.5-P20: Maintain, upgrade and replace storm drains throughout the city to reduce potential flooding.	CONSISTENT. The Project would include new stormwater collection and conveyance infrastructure on all parcels as part of the overall Stormwater Management Plan, which would include stormwater treatment measures to satisfy NPDES Municipal Regional Permit Provision C.3.

General Plan Goal/Policy	Consistency Analysis
Policy 5.10.5-P21: Require that storm drain infrastructure is adequate to serve all new development and is in place prior to occupancy.	CONSISTENT. The Project would include new stormwater collection and conveyance infrastructure as part of the overall Stormwater Management Plan, including filtration systems throughout the Project site. The following stormwater treatment measures would be considered and carefully selected as part of the final design process for the different sections of the proposed development: bioretention areas, flow-through planters, tree well and media filters, infiltration trenches, rainwater harvesting areas, green streets, or equivalent treatment measures. Mitigation Measure WQ-3.1 (Drainage and Flooding during Construction and Operation) would require an assessment of the Project's underground storm drain conveyance system to determine whether it would be capable of conveying 10-year peak runoff flows. The design of public streets would also be assessed to determine whether they would keep flows from a 100-year event within roadway limits and prevent them from extending into private property. In addition, the Project would remove the existing storm drain under Democracy Way and replace the storm drain under Tasman Drive, starting at the intersection of Patrick Henry Drive and Old Ironsides Drive. The existing storm drain under Patrick Henry Drive would be extended north, a new storm drain would extend south from Tasman Drive through the open space area to the Central Green for drainage within the northern portion of the Project site, and another new storm drain would extend west from the existing storm drain main under Old Ironsides Drive to the area north of South Park. Lastly, a new storm drain would extend east from the existing storm drain main under Patrick Henry Drive to the southern portion of the Project site. Because the Project would significantly alter drainage patterns, differing amounts of runoff from the Project site could be conveyed to different storm drain systems compared to existing conditions. If the proposed stormwater drainage systems are not appropriately designed and constructed, runoff from the Project site could exceed the capacity of existing or proposed stormwater drainage systems. Flooding could occur onsite or offsite, and floodflows could be impeded or redirected by the Project, which would alter stormwater drainage patterns. Implementation of Mitigation Measure WQ-3.1 would ensure that potential operational impacts of the Project related to exceeding the capacity of existing or proposed stormwater drainage systems, flooding onsite or offsite, and impeding or redirecting floodflows would be less than significant by requiring a hydraulic study to be performed and the Project design to be modified, if necessary, to demonstrate that the Project would not result in significant impacts related to stormwater conveyance and flooding . In addition, for drainage reasons, the finished floor elevations of the buildings on the Project site would be approximately 15 feet above grade.

General Plan Goal/Policy	Consistency Analysis
Policy 5.10.5-P22: Regulate development on sites with known or suspected contamination of soil and/or groundwater to ensure that construction workers, the public, future occupants and the environment are adequately protected from hazards associated with contamination, in accordance with applicable regulations.	CONSISTENT. Significant soil and groundwater contamination was not identified during previous site investigations. If contaminated soil or groundwater is encountered during construction, construction workers could be exposed to methane and VOCs in the soil; however, implementation of Mitigation Measure HAZ-2.1 (Subsurface Contamination), as included in Section 3.11, *Hazards and Hazardous Materials*, would mitigate any potential exposure.
Policy 5.10.5-P23: Require appropriate cleanup and remediation of contaminated sites.	CONSISTENT. Refer to Policy 5.10.5-P22.
Policy 5.10.5-P24: Protect city residents from the risks inherent in the transport, distribution, use and storage of hazardous materials.	CONSISTENT. Project construction activities would include the routine transport, use, or disposal of hazardous materials, such as motor fuels, oils, solvents, and lubricants. These construction activities would take place at both the Project site and in offsite areas. The Project would include residential, retail, office/R&D, childcare, and community land uses. Therefore, small quantities of commercially available hazardous materials, such as household cleaning and landscaping supplies, as well as diesel fuel for backup generators, would routinely be handled and used. Because compliance with existing regulations regarding the routine transport, use, or disposal of hazardous materials during Project construction and operation is mandatory, the Project would have a less-than-significant impact on the public or the environment.
Policy 5.10.5-P25: Use best management practices to control the transport of hazardous substances and to identify appropriate haul routes to minimize community exposure to potential hazards.	CONSISTENT. Refer to Policy 5.10.5-P24.
Policy 5.10.5-P26: Survey pre-1980 buildings and abate any lead-based paint and asbestos prior to structural renovation and demolition, in compliance with all applicable regulations.	CONSISTENT. The buildings that are currently located on the Project site were constructed prior to 1980. Therefore, there is a possibility that lead-based paint and asbestos are present in existing buildings that are to be demolished. Demolition of the existing buildings would be conducted in compliance with all applicable regulations.
Policy 5.10.5-P28: Continue to require all new development and subdivisions to meet or exceed the City's adopted fire code provisions.	CONSISTENT. The Project Sponsor has coordinated with SCFD regarding site plans and the design of the Project. Consultation with SCFD will continue throughout the development process. All new structures as well as open space, circulation, and site access areas would be required to meet or exceed the City's adopted fire code provisions.
Policy 5.10.5-P30: Review the location and design of development within Airport Land Use Commission jurisdiction for compatibility with the Airport Land Use Compatibility Plan.	CONSISTENT. The Project is located outside all applicable Airport Land Use Compatibility Plans.

General Plan Goal/Policy	Consistency Analysis
Policy 5.10.5-P33: Limit the height of structures in accordance with the Federal Aviation Administration Federal Aviation Regulations Part 77 criteria.	CONSISTENT. The Project's tallest building is projected to be approximately 202 feet above the future onsite street grade. Project building heights would not exceed 350 feet above mean sea level, which is consistent with FAA hazard height limits.
Policy 5.10.5-P35: Establish minimum buffers between odor sources and new residential or other uses with sensitive receptors, consistent with BAAQMD guidelines, unless a project-specific study demonstrates that these risks can be reduced to acceptable levels.	CONSISTENT. Potential odor emitters during construction activities include diesel exhaust, asphalt paving, and the use of architectural coatings and solvents. Construction-related operations would be temporary, and construction activities would not be likely to result in nuisance odors that would violate BAAQMD Regulation 7. Odors during operation could result from vehicle exhaust and the reapplication of architectural coatings. These odors would be limited to areas adjacent to the building. Although such brief exhaust- and paint-related odors may be considered adverse, they would not affect a substantial number of people. Given mandatory compliance with BAAQMD, no construction or operational activities proposed would create a significant level of objectionable odors.
Noise Goals and Policies	
Goal 5.10.6-G1: Noise sources restricted to minimize impacts in the community.	CONSISTENT. The goal of restricting noise sources to minimize impacts on the community is a citywide goal. As discussed in Section 3.6, *Noise*, although the Project would result in significant temporary impacts related to construction noise, the Project would minimize impacts to the extent feasible through implementation of Mitigation Measure NOI-1.1 (Construction Noise Reduction Control Plan) and through the permitting of any extended hours through the City's adopted Noise Ordinance. The Project would also result in an increase in the number of vehicle trips compared with existing conditions; however, the Project would not result in a noticeable increase in traffic noise compared to No-Project conditions. Operational noise from mechanical equipment and emergency generators would be reduced through implementation of Mitigation Measure NOI-2.1 (Stationary Sources Noise Reduction Plan).
Goal 5.10.6-G2: Sensitive uses protected from noise intrusion.	CONSISTENT. Refer to Goal 5.10.6-G1.
Goal 5.10.6-G3: Land use, development and design approvals that take noise levels into consideration.	CONSISTENT. The goal of considering noise levels in land use, development, and design approvals is a citywide goal. The Project supports this goal through implementation of Mitigation Measures NOI-1.1 (Construction Noise Reduction Control Plan) and NOI-2.1 (Stationary Sources Noise Reduction Plan), as included in Section 3.6, *Noise*. These plans would be developed by an acoustical design professional and would reduce noise impacts to the extent feasible. Design features and treatments would be identified to ensure that exterior and interior noise levels at proposed uses would be reduced to the maximum extent feasible.

General Plan Goal/Policy	Consistency Analysis
Policy 5.10.6-P1: Review all land use and development proposals for consistency with the General Plan compatibility standards and acceptable noise exposure levels defined on Table 5.10-1.	CONSISTENT. This Draft EIR reviews the Project's consistency with General Plan compatibility standards and acceptable noise exposure levels in the City. Section 3.6, *Noise*, discusses the noise impacts associated with the Project.
Policy 5.10.6-P2: Incorporate noise attenuation measures for all projects that have noise exposure levels greater than General Plan "normally acceptable" levels, as defined on Table 5.10-1.	CONSISTENT. Section 3.6, *Noise*, includes mitigation measures to reduce noise levels. Mitigation Measure NOI-1.1 (Construction Noise Reduction Control Plan) would reduce the impact of construction noise to the extent feasible by incorporating noise attenuation measures into the Project. Likewise, Mitigation Measure NOI-2.1 (Stationary Sources Noise Reduction Plan) would require the incorporation of attenuation features into the design of mechanical equipment. The Project would also incorporate attenuation features such as double-paned windows, conditioned spaces, and insulation to lower indoor exposure to noise levels that exceed "normally acceptable" levels. Other noise features would be considered when necessary.
Policy 5.10.6-P3: New development should include noise control techniques to reduce noise to acceptable levels, including site layout setbacks, separation and shielding), building treatments (mechanical ventilation system, sound-rated windows, solid core doors and baffling) and structural measures (earthen berms and sound walls).	CONSISTENT. The Project would be required to implement a Stationary Sources Noise Reduction Plan, per Mitigation Measure NOI-2.1, as outlined in Section 3.6, *Noise*. This mitigation measure would ensure noise from Project mechanical equipment would comply with the exterior noise limits outlined in Section 9.10.040 of the Santa Clara City Code.
Policy 5.10.6-P4: Encourage the control of noise at the source through site design, building design, landscaping, hours of operation and other techniques.	CONSISTENT. Mitigation Measure NOI-2.1 would control noise through site design, building design, and other techniques.
Policy 5.10.6-P5: Require noise-generating uses near residential neighborhoods to include solid walls and heavy landscaping along common property lines, and to place compressors and mechanical equipment in sound-proof enclosures.	CONSISTENT. Noise from non-transportation sources would include onsite noise generated by residences; commercial and other non-residential uses, primarily HVAC systems; and minor building-related sources. Implementation of Mitigation Measure NOI-2.1 would ensure that potential noise impacts would be addressed through design (i.e., enclosures around noise-generating equipment, setbacks to maximize distances to residences, noise-reducing treatments in new buildings), which would reduce this impact to a less-than-significant level.

General Plan Goal/Policy	Consistency Analysis
Policy 5.10.6-P6: Discourage noise sensitive uses, such as residences, hospitals, schools, libraries and rest homes, from areas with high noise levels, and discourage high noise generating uses from areas adjacent to sensitive uses.	CONSISTENT. The goal of discouraging the siting of sensitive uses near areas with existing high noise levels and the siting of high-noise projects nearby existing sensitive uses is a citywide goal. The Project site is not located in an area with high noise levels. The Project supports the City goal by siting the Project's proposed residential and day-care uses on the southern portion of the site, adjacent to the future residential uses in the Patrick Henry Specific Plan area. However, the Project would result in significant temporary impacts related to construction noise, which would be minimized through implementation of Mitigation Measure NOI-1.1 (Construction Noise Reduction Control Plan) and through the permitting of any extended hours through the City's adopted Noise Ordinance. Mitigation Measure NOI-2.1 (Stationary Sources Noise Reduction Plan) would minimize operational impacts from mechanical equipment, further mitigating potential impacts on sensitive uses.
Policy 5.10.6-P7: Implement measures to reduce interior noise levels and restrict outdoor activities in areas subject to aircraft noise in order to make Office/research and Development uses compatible with the Norman Y. Mineta International Airport land use restrictions	CONSISTENT. The Project site is adjacent to but outside the AIA of SJC. The Project would include utility work within Old Ironsides Drive, which is within the AIA of SJC. However, the Project site does not fall within the 65 dBA CNEL noise contour (i.e., the lowest noise contour for aircraft noise presented) for SJC and would thus not be exposed to aircraft noise above 65 dBA. Therefore, although the Project site may receive some noise from existing aircraft noise, people living and working at the Project site would not be greatly affected by aircraft noise.
Policy 5.10.6-P8: Continue to encourage safe and compatible land uses within the Norman Y. Mineta International Airport Noise Restriction Area.	CONSISTENT. Refer to Policy 5.10.6-P7.
Policy 5.10.6-P9: Work with Norman Y. Mineta International Airport to implement mitigation from aircraft noise to the fullest extent possible.	CONSISTENT. Refer to Policy 5.10.6-P7.
Policy 5.10.6-P11: Develop and include noise reduction measures with improvements and extensions of city streets.	CONSISTENT. .Noise reduction measures on City streets are not necessary for this Project.
Housing Element Goals and Policies	
Goal A: Create and maintain high-quality, livable, and diverse housing stock within Santa Clara.	CONSISTENT. The Project proposes consolidating existing planned employment-generating uses (up to 3 million gsf of office/R&D uses) on a smaller portion of the Project site to allow adequate land for the up to 1,800 multi-family housing units proposed for Area D of the Project site. These units would increase density on the Project site, which is currently underutilized compared with adjacent development.

General Plan Goal/Policy	Consistency Analysis
Policy A-1: Maintain and improve the quality of residential housing stock, address housing deficiencies and prevent future blight through the encouragement of ongoing maintenance, rehabilitation, and conservation of existing housing stock.	CONSISTENT. Refer to Goal A.
Policy A-5: Proactively plan for sufficient housing capacity through infill development that is compatible with existing neighborhoods and through the preparation of neighborhood plans that will support the development of new, complete neighborhoods.	CONSISTENT. Refer to Goal A. The Project site is visually and physically separated from existing residential development. Although the Project's density and intensity would be lower than that of other developments adjacent to the site (such as Levi's Stadium and the Convention Center), the Project would increase the existing density of the underutilized 48.6-acre site to be more compatible with surrounding development and future planned development. The Project would also promote onsite neighborhood compatibility by providing neighborhood amenities, such as retail and community amenities.
Goal B: Designate suitable vacant or underutilized sites for new residential development.	CONSISTENT. Although the Project site has not been previously designated as a site for residential development, the 48.6 acres are currently underutilized. The proposed General Plan designation and zoning for the Project site would allow the Project to be compatible with City goals and policies (i.e., promoting new residential development on currently underutilized sites).
Policy B-2: Encourage the building of higher density housing on appropriate vacant or underutilized sites.	CONSISTENT. Refer to Goal A.
Policy B-5: Encourage high density residential development utilizing the city's higher density and mixed-use residential designations in proximity to transit and other residential services.	CONSISTENT. Refer to Goal A. The Project would include up to 1,800 units in a mixed-use development that would be adjacent to major local and regional transit lines. The Project site is currently within a TPA and walking distance from numerous VTA light rail stops, including Old Ironsides Station, Reamwood Station, and Great America Station. In addition, Amtrak's Capitol Corridor and Altamont Corridor Express operate out of Great America Station, which is approximately 1 mile from the Project site. The Project proposes neighborhood-supporting retail, which would provide residential services as well as a Neighborhood Park and day-care services. Therefore, the Project would develop higher-density residential uses within a transit-oriented and mixed-use area.

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3.2 Transportation

This section describes the existing regulatory and environmental conditions for public transit, bicyclists and pedestrians, and automobile transportation within and around the Mission Point Project (Project) site and evaluates the potential for impacts with respect to these topics that would occur as a result of development of the Project. This section is based on the information provided in the *Kylli Mission Point Mixed-Use Development Transportation Analysis* (Appendix 3.2)[1] prepared by Hexagon Transportation Consultants, Inc.

Comments pertaining to transportation were received in response to the Notice of Preparation (NOP) (Appendix 1) from the California Department of Transportation (Caltrans), the County of Santa Clara, the City of Sunnyvale, and the Santa Clara Valley Transportation Authority (VTA). The NOP comments, as well as details regarding how each was addressed in this document, are discussed below.

- **Comment:** Evaluate intersection level of service (LOS) and vehicle miles traveled (VMT) (County of Santa Clara, VTA, and Caltrans).
- **Response:** The Project's potential impacts on VMT are evaluated below. Although intersection LOS is no longer used to identify transportation impacts under the California Environmental Quality Act (CEQA), per Senate Bill (SB) 743 (described below), an analysis of intersection LOS is included in the *Kylli Mission Point Mixed-Use Development Transportation Analysis* included in Appendix 3.2 of the EIR.
- **Comment:** Document Project trip generation assumptions (VTA).
- **Response:** The *Kylli Mission Point Mixed-Use Development Transportation Analysis* includes a section that discusses and describes the process used to estimate Project trips.
- **Comment:** Evaluate freeway segments and freeway ramps (Caltrans and VTA).

  Response: Although freeway congestion and freeway ramp queuing do not constitute a significant impact under the new State CEQA Guidelines, an analysis of freeway segments and freeway ramps is included in the *Kylli Mission Point Mixed-Use Development Transportation Analysis*.
- **Comment:** Evaluate an expanded list of study intersections following Congestion Management Program (CMP) guidelines and request an opportunity to review the draft traffic impact analysis report (County of Santa Clara and City of Sunnyvale).

  Response: An analysis of intersection LOS is no longer needed to evaluate transportation impacts under CEQA. Nevertheless, a local transportation analysis, including an evaluation of intersection LOS, is included in the *Kylli Mission Point Mixed-Use Development Transportation Analysis*. The list of study intersections was developed in coordination with City of Santa Clara (City) staff members and includes many of the intersections listed in the NOP comments. Some non-CMP intersections listed in the NOP comments were not analyzed because they are currently operating at an acceptable LOS and the addition of Project traffic is not expected to adversely affect intersection operations.
- **Comment:** Evaluate queuing from turn movements where the Project would add trips (County of Santa Clara).

[1] Hexagon Transportation Consultants, Inc. 2023. *Kylli Mission Point Mixed-Use Development Transportation Analysis*. Prepared for ICF Jones & Stokes. The Hexagon transportation analysis (with appendices) is on file with the City of Santa Clara; the Hexagon report is also included as Appendix 3.2 to this EIR.

Response: The *Kylli Mission Point Mixed-Use Development Transportation Analysis* contains an evaluation of vehicle queuing from selected turn movements where the Project would add a substantial number of such movements. The Project's effects on vehicle queuing is not used to identify transportation impacts under CEQA.

- **Comment:** Encourage and document Transportation Demand Management (TDM) measures (City of Sunnyvale, County of Santa Clara, VTA, and Caltrans).

  Response: The Mission Point Planned Development (PD) Rezoning Application contains a description of the Project's TDM program. A more detailed TDM program will be submitted to the City for each phase of development with the application for a building permit.

- **Comment:** Evaluate the compatibility of the stadium use with the proposed residential uses from a transportation circulation perspective; evaluate Levi Stadium game-day scenario (City of Sunnyvale).

  Response: Levi's Stadium hosts an average of 20 events per year.[2] Excluding NFL post-season games, ten San Francisco 49ers games are held at Levi's Stadium each year. Most of the 49ers games are held on Sundays and holidays. During the 2023/2024 NFL season, two 49ers home games are scheduled on a non-holiday weekday: a pre-season game starting at 7:00 p.m. on Friday, August 25, and a regular season game starting at 5:15 p.m. on Thursday, September 21. Levi's Stadium also hosted concerts on five dates in 2023, consisting of two concerts on Saturdays and the following three concerts on weekdays: Taylor Swift at 6:30 p.m. on Friday, July 28; Karol G at 7:00 p.m. on Monday, August 14; and Beyoncé at 8:00 p.m. on Wednesday, August 30. Levi's Stadium also hosted two soccer events in 2023: a San José Earthquakes MLS regular season game and CONCACAF Gold Cup soccer matches, both of which occurred during the weekend. Given the infrequency of events at Levi's Stadium,[3] event-day traffic conditions are not typical. Furthermore, most stadium events occur on weekends and holidays; therefore, stadium events that affect weekday commute traffic are even more rare.[4] The transportation analyses for new developments are intended to represent typical traffic conditions that are not affected by special events, inclement weather conditions, or collisions or other incidents. Traffic generated by Levi's Stadium during peak commute periods on a typical weekday is reflected in the existing traffic counts used in the *Kylli Mission Point Mixed-Use Development Transportation Analysis*. The transportation impacts associated with stadium events were evaluated in the environmental impact report (EIR) prepared for the stadium.[5]

- **Comment:** Evaluate emergency service access (City of Sunnyvale).

  Response: Potential impacts on emergency access associated with the Project are discussed below. Furthermore, the *Kylli Mission Point Mixed-Use Development Transportation Analysis* provides an evaluation of intersection operations that quantifies expected average vehicle delay at study intersections. Delay experienced by emergency vehicles may be less than reported because drivers must yield to emergency vehicles that sound a siren and display a red light.

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2 Levi's Stadium. n.d. *About Levi's Stadium*. Available: https://www.levisstadium.com/levis-stadium-events/. Accessed: September 18, 2023.

3 20 events per year/365 days per year means that approximately 5 percent of all days have events.

4 5 weekday events per year/260 weekdays per year means that approximately 2 percent of all weekdays have events.

5 City of Santa Clara. 2009. *Draft Environmental Impact Report for the 49ers Santa Clara Stadium Project*. July; City of Santa Clara. 2009. *Final Environmental Impact Report for the 49ers Santa Clara Stadium Project*. November; City of Santa Clara. 2010. *Addendum to the Final Environmental Impact Report for the 49ers Santa Clara Stadium Project.* August.

- **Comment:** Include approved and pending projects in the evaluation of transportation impacts (City of Sunnyvale).
- **Response:** The traffic volume forecasts used in this analysis were developed with use of the Santa Clara travel demand model. In Sunnyvale, the model reflects anticipated growth, according to Association of Bay Area Governments (ABAG) 2030 projections for background conditions and ABAG 2035 projections for cumulative conditions. ABAG works with local jurisdictions to ensure that land use projections reflect the location and size of approved and pending developments. In addition, the traffic consultant, Hexagon, reached out to adjacent local agencies to obtain a list of approved and pending projects and confirm that ABAG's assumed land use growth is consistent with the project lists.
- **Comment:** Minimize onsite parking (Caltrans).

  Response: Parking is not a CEQA topic and thus is not evaluated in detail in this document. Nevertheless, the *Kylli Mission Point Mixed-Use Development Transportation Analysis* includes a shared parking analysis to assess whether proposed onsite parking would be adequate for the anticipated parking demand generated by the proposed land uses.
- **Comment:** Evaluate how the Project would affect parking for Levi's Stadium events (City of Sunnyvale).

  Response: Parking is not a CEQA topic and thus is not evaluated in detail in this document. Nevertheless, the *Kylli Mission Point Mixed-Use Development Transportation Analysis* includes an evaluation of the proposed onsite parking supply versus the anticipated parking demand generated by the proposed land uses. Parking conditions associated with stadium events were evaluated in the EIR for the 49ers Santa Clara Stadium Project. Furthermore, the City reviews and approves a Transportation Management and Operations Plan (TMOP) and Parking Plan for Levi's Stadium annually. Table 5.5-2 of the 2022 TMOP identifies two parking locations within the Project site: Blue Lot 1 and the RV Blue Lot. These two parking locations have 3,300 parking spaces available to patrons on event days. The Project anticipates that a portion of the proposed onsite parking supply would be available for use by stadium patrons; however, this would be subject to agreement by office tenants. Therefore, the number of spaces to be shared with the stadium is unknown at this time. Should the supply of parking spaces for stadium patrons be reduced, the City would require the TMOP to provide an equivalent number of parking spaces by partnering with other property owners around the stadium area; providing parking at more distant locations, combined with a shuttle service; or taking other actions, as identified in the EIR for Levi's Stadium.
- **Comment:** Evaluate and encourage alternative modes of transportation; consider impacts on transit, bicycle, and pedestrian facilities (City of Sunnyvale, Caltrans, and VTA).

  Response: The Project's potential impacts on transit, pedestrian, and bicycle facilities, as well as the multimodal improvements to be fully or partially funded by the Project, are described below. In addition, the *Kylli Mission Point Mixed-Use Development Transportation Analysis* includes an evaluation of transit vehicle delay.
- **Comment:** Identify adverse operational effects, along with associated feasible improvements and the Project's financial responsibility toward such improvements. Consider planned improvements identified in the Valley Transportation Plan, the City's Capital Improvement Program, the Sunnyvale Traffic Impact Fee Study, the County Expressway Planning Study, and the Tasman Corridor Complete Streets Study (City of Sunnyvale and VTA).

Response: The Project's impacts on alternative modes of transportation, as well as the multimodal improvements to be partially or fully funded by the Project, are discussed below. The Project's effects on intersection operations are no longer considered an impact under CEQA and thus are not described in this section. However, the *Kylli Mission Point Mixed-Use Development Transportation Analysis* includes an evaluation of intersections and freeway segments that may be adversely affected by the Project, identifies improvements to offset the adverse effects, and describes the Project's financial responsibility for such improvements.

- **Comment:** Encourage new trail connections, such as an extension to the new multi-use trail along the southern perimeter of the Project site to connect to Calabazas Creek Trail (City of Sunnyvale and VTA).

  Response: The City is currently preparing the Creek Trail Network Expansion Master Plan (Trail Master Plan), which addresses issues concerning the Saratoga Creek, Hetch Hetchy, and Calabazas Creek corridors. The Trail Master Plan identifies a connection between Calabazas Creek Trail and the proposed multi-use trail adjacent to the San Francisco Public Utilities Commission (SFPUC) Hetch Hetchy right-of-way (ROW) near the southwest corner of the Project site. The Patrick Henry Drive Specific Plan notes the potential dedication of property within the plan area for a connection to Calabazas Creek Trail at this location.

- **Comment:** Evaluate access for public transit vehicles and shuttles, bicycles, and pedestrians during construction (VTA).

  Response: Potential impacts on all modes of travel during construction are described below.

Existing Conditions

Regulatory Setting

Federal

Federal Highway Administration

The Federal Highway Administration (FHWA) is the agency of the U.S. Department of Transportation responsible for the federally funded roadway system, including the interstate highway network and portions of the primary state highway network, such as US 101 and State Route (SR) 237.

Americans with Disabilities Act

The Americans with Disabilities Act (ADA) of 1990 provides comprehensive rights and protections to individuals with disabilities. The goal of the ADA is to ensure equality of opportunity, full participation, independent living, and economic self-sufficiency for people with disabilities. To implement this goal, the U.S. Access Board, an independent federal agency created in 1973 to ensure accessibility for people with disabilities, has created accessibility guidelines for public ROWs. Although these guidelines have not been formally adopted, they have been widely followed by jurisdictions and agencies nationwide in the last decade. The guidelines, last revised in July 2011, address various issues, including roadway design practices, slope and terrain issues, and pedestrian access to streets, sidewalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public ROWs. These guidelines would apply to proposed roadways in the study area.

State

SB 743

SB 743 (CEQA Section 21099[b][1]) required the California Office of Planning and Research (OPR) to develop revisions to the State CEQA Guidelines to establish criteria for determining the significance of transportation impacts of projects that "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." CEQA Section 21099(b)(2) states that, upon certification of the revised guidelines for determining transportation impacts, pursuant to CEQA Section 21099(b)(1), automobile delay, as described solely by LOS or similar measure of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment under CEQA.

In January 2016, OPR published its *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA* for public review and comment, recommending that transportation impacts for projects be measured using a VMT metric.[6] In December 2018, the California Natural Resources Agency certified and adopted the State CEQA Guidelines update package, including the section implementing SB 743 (Section 15064.3). OPR developed its *Technical Advisory on Evaluating Transportation Impacts in CEQA,* which contains OPR's technical recommendations regarding assessments of VMT, thresholds of significance, and mitigation measures.[7]

California Department of Transportation

Caltrans is responsible for planning, designing, constructing, operating, and maintaining all State of California– (State-) owned roadways in Santa Clara County. In addition, Caltrans implements federal highway standards in California. Caltrans requirements are described in its *Transportation Impact Study Guide.*[8] The *Transportation Impact Study Guide* explains how Caltrans reviews impacts on State highway facilities, including freeway segments, on- and off-ramps, and signalized intersections.

Regional and Local

Metropolitan Transportation Commission

The Metropolitan Transportation Commission (MTC) is responsible for planning, coordinating, and financing transportation projects in the nine-county Bay Area. The local agencies that make up the nine counties help the MTC prioritize projects, according to need, feasibility, and conformance with federal and local transportation policies. In addition to coordinating with local agencies, the MTC distributes State and federal funding through the Regional Transportation Improvement Program.

Plan Bay Area 2050

Plan Bay Area 2050 is a State-mandated, integrated long-range transportation and land use plan. As required by SB 375, all metropolitan regions in California must complete a Sustainable Communities Strategy as part of a Regional Transportation Plan. This strategy integrates transportation, land use, and housing to meet greenhouse gas reduction targets set by the California Air Resources Board. The plan

[6] California Office of Planning and Research. 2016. *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA, Implementing Senate Bill 743* (Steinberg, 2013). January 20.

[7] California Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 18. Available: opr.ca.gov/docs/ 20190122-743_Technical_Advisory.pdf.

[8] California Department of Transportation. 2020. *Transportation Impact Study Guide*. May.

meets those requirements. In addition, the plan sets a roadmap for future transportation investments and identifies what it would take to accommodate expected growth. The plan neither funds specific transportation projects nor changes local land use policies.

In the Bay Area, the latest plan was adopted by the MTC and ABAG in 2021. Under Plan Bay Area 2050, just under half of all Bay Area households would live within 0.5 mile of frequent transit by 2050, with this share increasing to more than 70 percent for households with low incomes. Transportation and environmental strategies that support active and shared modes, combined with a transit-supportive land use pattern, are forecast to lower the share of Bay Area residents who drive to work alone from 50 percent in 2015 to 33 percent in 2050. Greenhouse gas emissions from transportation would decrease significantly as a result of these transportation and land use changes, and the Bay Area would meet the State mandate of a 19 percent reduction in per capita emissions by 2035.

Plan Bay Area 2050 identifies Priority Development Areas near public transit to meet the greenhouse gas reduction targets. Although the Project site is adjacent to the Tasman Light Rail Corridor, it is not within a Priority Development Area, as adopted by the executive bodies of the MTC and ABAG.

Santa Clara Valley Transportation Authority Congestion Management Plan

VTA provides sustainable, accessible community-focused transportation options in the Santa Clara region. VTA is the county's congestion management agency and is responsible for countywide and regional transportation planning and programming. This includes developing, implementing, and monitoring the CMP, which links transportation planning and land use planning in Santa Clara County; designing and constructing specific improvement projects (e.g., highway, bicycle, pedestrian); overseeing transit planning, construction, and service; and promoting transit-oriented development.

Santa Clara Valley Transportation Authority Transit Service Guidelines (2019)

The Transit Service Guidelines document guides VTA's service planning efforts and provides a framework to objectively monitor and evaluate VTA's transit services. It establishes a process for developing service change recommendations for the VTA Board of Directors to consider, based on best practices and objective performance measures.

City of Santa Clara 2010–2035 General Plan

The City of Santa Clara 2010–2035 General Plan (General Plan) addresses citywide transportation and circulation needs, including transit facilities as well as facilities for bicyclists and pedestrians, and outlines the objectives necessary to achieve them. Applicable General Plan goals and policies related to transportation include:

- **Goal 5.1.1-G4:** Development of a multimodal transportation system that reduces the reliance on owning and driving single-occupant vehicles.
- **Goal 5.3.1-G1:** Reduced dependence on the single-occupant automobiles.
    - *Policy 5.3.1-P12:* Encourage convenient pedestrian connections within new and existing developments.
    - *Policy 5.3.1-P13:* Support high-density and high-intensity development within 0.25 mile of transit hubs and stations and along transit corridors.

- *Policy 5.3.1-P14:* Encourage transportation demand management strategies and the provision of bicycle and pedestrian amenities in all new development with more than 25 housing units or more than 10,000 non-residential square feet, and for City employees, decrease use of the single-occupant automobiles and reduce vehicle miles traveled, consistent with the Climate Action Plan (CAP).
- *Policy 5.3.1-P15:* Require new developments and major public infrastructure projects to include adequate rights-of-way to accommodate all modes of transportation.
- *Policy 5.3.1-P16:* Consolidate curb cuts with new development on arterial roadways to minimize pedestrian/vehicle conflicts at driveway locations and improve traffic flow.
- *Policy 5.3.2-P2:* Encourage higher-density residential development in transit and mixed-use areas and in other locations throughout the city where appropriate.
- *Policy 5.3.2-P3:* Encourage below-grade parking and parking structures for development in Medium-Density and High-Density designations.
- *Policy 5.3.2-P21:* Encourage new housing developments to incorporate design features, programs, and incentives for increased transit ridership and decreased parking demand.

- **Goal 5.3.3-G3:** Sufficient commercial services for residents and businesses that are accessible using alternate transportation modes.
- **Goal 5.3.4-G3:** Mixed-use development that maximizes accessibility to alternate transportation modes and integrates bicycle, pedestrian, transit, open space, and outdoor uses to encourage active centers.
  - *Policy 5.3.4-P14:* Provide a network of streets and pedestrian connections in large mixed-use developments.
  - *Policy 5.3.4-P15:* Maximize opportunities to connect streets, bicycle facilities, and pedestrian pathways to improve accessibility between mixed-use development and surrounding neighborhoods, parks, open spaces, transit, and public amenities. Provide clear signage, high visibility, adequate lighting, and special paving to enhance pedestrian and bicycle facilities.
- **Goal 5.3.5-G3:** Higher-intensity employment centers located near major transit services and major transportation corridors to reduce vehicle miles traveled.
  - *Policy 5.3.5-P8:* Encourage the provision of services and amenities as part of larger developments in employment areas that cater to lunchtime and service needs, such as dry cleaners, to reduce vehicle miles traveled.
  - *Policy 5.5.2-P9:* Improve pedestrian amenities, including sidewalks and bicycle paths, to promote neighborhood compatibility.
  - *Policy 5.5.2-P10:* Encourage below-grade parking to accommodate parking demand in order to reduce overall building height and massing in transition areas.
- **Goal 5.8.1-G2:** Transportation networks that provide a safe, efficient, convenient, and integrated system to move people and goods.
- **Goal 5.8.1-G3:** Transportation networks that promote a reduction in the use of personal vehicles and vehicle miles traveled.

- *Policy 5.8.1-P1:* Create accessible transportation network systems to meet the needs of all segments of the population, including youth, seniors, persons with disabilities, and low-income households.
- *Policy 5.8.1-P2:* Link all city transportation networks, including pedestrian and bicycle circulation, to existing and planned regional networks.
- *Policy 5.8.1-P3:* Identify opportunities to connect people to supportive services, public amenities, and transit.
- *Policy 5.8.1-P4:* Expand transportation options and improve alternate modes that reduce greenhouse gas emissions.
- *Policy 5.8.1-P4:* Work with local, regional, State, and private agencies, as well as employers and residents, to encourage programs and services that reduce vehicle miles traveled.

- **Goal 5.8.2-G3:** A roadway network designed to accommodate alternate transportation modes in addition to vehicles.
  - *Policy 5.8.2-P9:* Require all new development to provide streets and sidewalks that meet City goals and standards, including new development in employment areas.
  - *Policy 5.8.2-P12:* Coordinate transportation planning with emergency service providers to ensure continued emergency service operations and services.
  - *Policy 5.8.3-P8:* Require new development to include transit stop amenities, such as pedestrian pathways to stops, benches, traveler information, and shelters.
  - *Policy 5.8.3-P9:* Require new development to incorporate reduced onsite parking and provide enhanced amenities, such as pedestrian links, benches, and lighting, in order to encourage transit use and increase access to transit services.
  - *Policy 5.8.4-P6:* Require new development to connect individual sites with existing and planned bicycle and pedestrian facilities, as well as on-site and neighborhood amenities/services, to promote alternate modes of transportation.
  - *Policy 5.8.4-P8:* Require new development and public facilities to provide improvements, such as sidewalks, landscaping, and bicycling facilities, to promote pedestrian and bicycle use.
- **Goal 5.8.5-G1:** Transportation demand management programs for all new development in order to decrease vehicle miles traveled and single-occupant vehicle use.
  - *Policy 5.8.5-P1:* Require new development and City employees to implement transportation demand management programs that can include site-design measures, including preferred carpool and vanpool parking, enhanced pedestrian access, bicycle storage, and recreational facilities.
  - *Policy 5.8.5-P2:* Require development to offer on-site services, such as ATMs, dry cleaning, exercise rooms, cafeterias, and concierge services, to reduce daytime trips.
  - *Policy 5.8.5-P3:* Encourage all new development to provide on-site bicycle facilities and pedestrian circulation.

- *Policy 5.8.5-P4:* Encourage new development to participate in shuttle programs to access local transit services within the city, including buses, light rail, Bay Area Rapid Transit, Caltrain, Altamont Commuter Express Yellow Shuttle, and Lawrence Caltrain Bowers/Walsh Shuttle services.
- *Policy 5.8.5-P5:* Encourage transportation demand management programs that provide incentives for the use of alternative travel modes to reduce the use of single-occupant vehicles.
- *Policy 5.8.5-P6:* Encourage transportation demand management programs that include shared bicycle and autos for part-time use by employees and residents to reduce the need for personal vehicles.
- *Policy 5.8.5-P7:* Promote programs that reduce peak-hour trips, such as flexible work hours, telecommuting, home-based businesses, and off-site business centers, and encourage businesses to provide alternate off-peak hours for operations.
- *Policy 5.8.5-P9:* Promote transportation demand management programs that provide education, information, and coordination to connect residents and employees with alternate transportation opportunities.

- **Goal 5.8.6-G2**: A parking supply that encourages the use of alternate transportation modes.
  - *Policy 5.8.6-P1:* Allow alternate parking standards for mixed-use development, development that meets specified transportation demand management criteria, and senior/group and affordable housing developments as well as areas in downtown and areas within 0.25 mile of transit centers and stops.
  - *Policy 5.8.6-P4:* Encourage shared, consolidated, and/or reduced parking in mixed-use centers and within 0.25 mile of transit centers and stops.
  - *Policy 5.8.6-P5:* Allow alternative parking techniques, such as parking lifts, automated parking, and tandem parking, in order to reduce the land area devoted to parking.
  - *Policy 5.9.1-P3:* Provide trails along creeks and other rights-of-way to link parks, open spaces, bicycle facilities, and transit services with residential neighborhoods and employment centers.
  - *Policy 5.9.1-P4:* Provide connections between private and public open space through publicly accessible trails and pathways and by orienting open spaces to public streets.
  - *Policy 5.9.3-P5:* Maintain emergency traffic preemption controls for traffic signals.
  - *Policy 5.10.2-P1:* Support alternative transportation modes and efficient parking mechanisms to improve air quality.
  - *Policy 5.10.2-P2:* Encourage development patterns that reduce vehicle miles traveled and air pollution.

Bicycle Master Plan Update (2018)

The Bicycle Master Plan Update establishes the City's long-term vision for improving bicycling in Santa Clara. Specifically, it recommends policies, programs, and projects for developing a comprehensive bicycling network with access to transit, schools, and other destinations and addresses issues concerning the design of accessible facilities. The plan also focuses on improving corridors and intersections to promote safety, connectivity, and comfort and providing amenities such as short- and long-term bicycle parking, lockers, showers, and repair stations at "end-of-trip" destinations.

Pedestrian Master Plan (2019)

The Pedestrian Master Plan establishes a framework for how the City can achieve its vision of being a walkable community and create safe, comfortable, accessible, and enjoyable walking opportunities for residents. The plan identifies improvements for the pedestrian network, including Priority Pedestrian Zones (i.e., zones with the highest potential for increasing walkability), roadway crossings, traffic signals, and environmental enhancements such as shade structures and enclosures, benches, and trees and planters to make walking in Santa Clara safer and more comfortable. In addition, lighting along sidewalks and pathways, bus stop amenities, improvements to navigation (wayfinding), opportunities for physical activity along routes, and building connectedness and destination accessibility are prioritized.

Climate Action Plan (2022)

The CAP establishes greenhouse gas emissions reduction targets and identifies strategies and actions for building climate resilience. One such strategy related to transportation is the requirement for new developments above certain size thresholds to reduce VMT through active TDM measures and submit annual reports to demonstrate compliance.

Transportation Analysis Policy (2020)

The Transportation Analysis Policy establishes requirements for evaluating the transportation impacts of land use and transportation projects under CEQA, consistent with State CEQA Guidelines Section 15064.3(b), based on estimated VMT. The policy includes baselines, thresholds, and criteria for exempting certain types of projects from VMT analysis. The policy also formalizes a Transportation Operational Analysis requirement outside of CEQA.

Environmental Setting

As described in Chapter 2, *Project Description*, of this EIR, the Project site encompasses a nine-parcel property with approximately 48.6 acres in northern Santa Clara. The Project site is bounded by Patrick Henry Drive to the west, Tasman Drive to the north, Old Ironsides Drive to the east, and a SFPUC ROW to the south. The Green and Orange light rail lines on Tasman Drive are approximately a 3- to 10-minute walk from any portion of the Project site, and VTA bus service is available on Tasman Drive and Great America Parkway. Shuttle service to the Altamonte Corridor Express (ACE) station is provided adjacent to the Project site on Patrick Henry Drive and Old Ironsides Drive.

Existing Transportation Network

This subsection describes transportation facilities in and near the Project site, including the roadway network and bicycle, pedestrian, and transit facilities. Figure 3.2-1 shows roadways, transit routes, and bicycle paths in the vicinity of the Project site.

Roadway Network

Regional access to the Project site is provided via US 101 and SR 237.

US 101 is an eight-lane freeway with three mixed-flow lanes and one high-occupancy vehicle (HOV) lane in each direction in the vicinity of the site. It extends north through San Francisco and south through Gilroy. Regional access to the Project site is provided via US 101 interchanges at Great America Parkway and Lawrence Expressway.



HEXAGON

Figure 3.2-1
Existing Transportation Network
Mission Point Project

SR 237 is a four-lane to six-lane freeway within the vicinity of the site that extends west to El Camino Real and east to Interstate (I) 880 in Milpitas. East of Mathilda Avenue, SR 237 has two mixed-flow lanes and one HOV lane in each direction. West of Mathilda Avenue, SR 237 has two mixed-flow lanes in each direction. SR 237 provides access to the site via interchanges at Great America Parkway and Lawrence Expressway.

Major roadways serving the Project site include Lawrence Expressway, Mission College Boulevard, Great America Parkway, Bowers Avenue, and Tasman Drive. Local roads serving the Project site include Patrick Henry Drive, Old Ironsides Drive, Old Glory Lane, and Democracy Way.

Lawrence Expressway is a north–south eight-lane expressway with a raised median and a posted speed limit of 50 mph. It begins at Saratoga Avenue to the south, crosses through Sunnyvale, then extends northward to where it transitions into Caribbean Drive at SR 237. HOV lanes are present on Lawrence Expressway between Stevens Creek Boulevard and Arques Avenue. Lawrence Expressway connects with US 101 and SR 237 via full-access freeway interchanges. Lawrence Expressway includes sidewalks along both sides on most segments and crosswalks at signalized intersections. There are no bicycle lanes on Lawrence Expressway, but bicycles are allowed on the shoulders.

Mission College Boulevard west of Great America Parkway is a loop road that circumnavigates Mission College and Mercado Shopping Center. The eastern portion of Mission College Boulevard is a four-lane to six-lane east–west thoroughfare, running between Great America Parkway and Montague Expressway. East of the loop road around Mission College, Mission College Boulevard has a landscaped median, sidewalks, and bicycle lanes. The speed limit is 30 mph west of Great America Parkway and 40 mph east of Great America Parkway. On-street parking is prohibited on Mission College Boulevard.

Great America Parkway is a north–south thoroughfare that begins at US 101 and extends northward to SR 237. Full interchanges are located at both US 101 and SR 237. Great America Parkway is primarily a six-lane roadway with a raised median and a posted speed limit of 40 mph. There is an additional northbound lane between US 101 and Tasman Drive. Bicycle lanes are present in both directions; on-street parking is not permitted. In addition, sidewalks are present on both sides for the entire length of the roadway. Great America Parkway provides access to and from the Project site via its intersections at Patrick Henry Drive, Old Glory Lane, and Tasman Drive.

Bowers Avenue is a six-lane north–south roadway north of Kifer Road and a four-lane roadway south of Kifer Road. It transitions from Great America Parkway north of US 101 and extends southerly to El Camino Real where it transitions to Kiely Boulevard. Bowers Avenue has a speed limit of 35 mph. Bicycle lanes exist along most of Bowers Avenue, except between Central Expressway and Kifer Road.

Tasman Drive is a two-lane to four-lane east–west roadway with a posted speed limit of 40 mph in the Project vicinity. Tasman Drive begins at Morse Avenue to the west and extends eastward past I-880, then transitions into Great Mall Parkway. VTA light rail tracks are present in the middle of Tasman Drive east of Fair Oaks Avenue. Tasman Drive includes sidewalks along most segments and crosswalks at signalized intersections. Bicycle routes or lanes are provided; on-street parking is prohibited in the Project vicinity. Tasman Drive serves as the northern boundary to the Project site and provides access via its intersections at Patrick Henry Drive and Old Ironsides Drive, via a proposed unsignalized Project driveway, and via a designated drop-off lane.

Old Glory Lane serves as the primary entrance to California's Great America amusement park east of Great America Parkway. West of Great America Parkway, Old Glory Lane is a two-lane roadway with a raised center median that connects to Old Ironsides Drive. The Project would add a driveway on Old

Ironsides Drive opposite Old Glory Lane, just north of the Santa Clara Trail, which is proposed along the southern boundary of the Project site. Similarly, the Project proposes a driveway on Patrick Henry Drive just north of the proposed Santa Clara Trail; however, the driveways at the southern edge of the Project site would not allow vehicular traffic to continue at grade through the site from Old Ironsides Drive to Patrick Henry Drive.

Old Ironsides Drive is a two-lane roadway with a center two-way left-turn lane that runs between Tasman Drive and Patrick Henry Drive. Old Ironsides Drive serves as the eastern boundary of the Project site and provides direct access to and from the site via Kylli Drive East, a Project driveway opposite Old Glory Lane, and a Project driveway north of Kylli Drive East. On-street parking is prohibited along Old Ironsides Drive. The speed limit is 25 mph.

Patrick Henry Drive is a two-lane roadway with a center two-way left-turn lane that runs between Tasman Drive and Great America Parkway. The speed limit on Patrick Henry Drive is 25 mph. On-street parking is prohibited. Between Great America Parkway and Old Ironsides Drive, sidewalks are available on both sides. West of Old Ironsides Drive, sidewalks are available on the west and south sides of the roadway and a small section on the north side. Patrick Henry Drive serves as the western boundary to the Project site and provides direct access to and from the site via Kylli Drive West and three Project driveways (one north and two south of Kylli Drive West).

Democracy Way is a two-lane public street easement within the Project site that runs between Old Ironsides Drive and Patrick Henry Drive. The Project would vacate Democracy Way and construct two new discontinuous private street segments, labeled as Kylli Drive West and Kylli Drive East in the Project plans, south of the current alignment. Kylli Drive West and East would not be through streets and would not connect Old Ironsides Drive and Patrick Henry Drive for vehicles.

Pedestrian Facilities

Pedestrian facilities consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections. In the vicinity of the Project site, sidewalks and separated pedestrian walkways are provided on the following roadways:

- Both sides of Patrick Henry Drive between Great America Parkway and 800 feet west of Old Ironsides Drive;
- South and west sides of Patrick Henry Drive between 800 feet west of Old Ironsides Drive and Democracy Way;
- Both sides of Patrick Henry Drive between Democracy Way and Tasman Drive;
- Both sides of Old Ironsides Drive south of Tasman Drive, except for a 500-foot segment south of Old Glory Lane where a sidewalk is missing along the west side;
- Both sides of Old Glory Lane;
- Both sides of Great America Parkway between Tasman Drive and Patrick Henry Drive;
- Both sides of Tasman Drive between Calabazas Creek Trail and Great America Parkway; and
- Both sides of Democracy Way.

Crosswalks are provided at the following intersections in the vicinity of the Project site:

- Old Ironsides Drive and Patrick Henry Drive (north and east legs only);

- Great America Parkway and Patrick Henry Drive;
- Old Ironsides Drive and Old Glory Lane;
- Great America Parkway and Old Glory Lane (north, east, and south legs only);
- Old Ironsides Drive and Democracy Way (north and west legs only);
- Old Ironsides Drive and Tasman Drive;
- Patrick Henry Drive and Tasman Drive;
- Patrick Henry Drive and Democracy Way; and
- Midblock on Patrick Henry Drive south of Democracy Way.

All crosswalks at signalized intersections include pedestrian signal heads and push buttons. However, the existing pedestrian transitions at some intersections do not comply with ADA guidelines.

Pedestrians are permitted to use shared-use paths such as the Calabazas Creek Trail as well as other trails, as described below.

Bicycle Facilities

Bicycle facilities that exist in the vicinity of the Project site include multiuse trails/paths (Class I bikeways), striped bicycle lanes (Class II bikeways), and shared bicycle routes (Class III bikeways).

Class I Trail or Path: An off-street path with an exclusive right-of-way for non-motorized transportation, used for commuting as well as recreation.

San Tomas Aquino Creek Trail extends from Sunnyvale Baylands Park north of SR 237; continues southward, passing near Levi's Stadium; then reaches San Tomas Expressway. At that point, it connects to a bicycle path on the west side of San Tomas Expressway north of Cabrillo Avenue, then extends southward to Homestead Road. In the vicinity of the Project site, the trail connects to bicycle lanes on Great America Parkway and Tasman Drive.

Calabazas Creek Trail connects Mountain View-Alviso Road to Mission College. This trail can be accessed via Tasman Drive approximately 700 feet west of the Project site. A bicycle/pedestrian bridge connects Calabazas Creek Trail with the John W. Christian Greenbelt near the southwestern corner of the Project site.

The John W. Christian Greenbelt is a shared-use path that extends from Calabazas Creek Trail westward to Blazingwood Drive in Sunnyvale near the Lawrence Expressway/Lakehaven Drive/Sandia Avenue intersection.

Guadalupe River Trail is approximately 1.3 miles east of the Project site. The northern segment of the trail begins at Gold Street in Alviso and connects to the SR 237 bikeway. Continuing south, the trail passes beneath most roadways, including SR 237, US 101, and I-880, then connects to downtown San José. The trail can be accessed via the bicycle lanes on Tasman Drive, via a pathway from Lick Mill Boulevard through Thamien Park, and from Montague Expressway.

Baylands Park Trail is north of the Project site. It runs from Baylands Park in Sunnyvale to SR 237 and serves as the northern trailhead for some of the South Bay's major north-to-south trails, including Calabazas Creek Trail, San Tomas Aquino Creek Trail, and Guadalupe River Trail.

Class II Bicycle Lanes: Lanes on roadways designated for use by bicycles with special lane markings. Within a 1-mile radius of the Project site, striped bicycle lanes are present along the following roadway segments:

- Great America Parkway, south of Great America Way (except for a small segment just north and south of Mission College Boulevard);
- Tasman Drive, east of Patrick Henry Drive and west of Calabazas Creek Trail;
- Mission College Boulevard, from Montague Expressway to Marriott Driveway west of Great America Parkway;
- Mission College Boulevard loop south of the intersection at Mission College Boulevard;
- Old Mountain View-Alviso/Lawrence Station Road, from Elko Drive to Great America Parkway;
- Elko Drive, from Reamwood Avenue to Lawrence Expressway; and
- Reamwood Avenue, from Tasman Drive to Elko Drive.

Class III Bicycle Routes: Streets designated for bicycle travel but shared with motor vehicles. Within a 1-mile radius of the Project site, bicycle routes are present along the following roadway segment:

- Great America Way, from Great America Parkway to Lafayette Street.

Bicycles are also permitted on Central Expressway, Lawrence Expressway, and Montague Expressway. However, due to high speeds and traffic volumes, the expressways are recommended for use by bicyclists of intermediate to advanced skills only.

Class IV Separated Bikeway: On-street bicycle facilities that are physically separated from motor vehicle traffic by a vertical element or barrier, such as a curb, bollard, or vehicle parking aisle. They can allow for one- or two-way travel on one or both sides of the roadway. No Class IV separated bikeways exist in the study area currently, but the City's Bicycle Master Plan Update identifies several planned separated bikeways within the study area.

Transit Facilities

Existing transit services for the Project site are provided by VTA, the San Joaquin Regional Rail Commission, and the Capitol Corridor Joint Powers Authority. The following discussion of Project accessibility is based on transit service as of January 16, 2023.

VTA provides scheduled bus and light rail transit routes through Santa Clara County. In the vicinity of the Project site, VTA provides rapid, local, and express bus services as well as light rail transit service. Bus stops for the ACE shuttle are located along the Project site frontage at Patrick Henry Drive and Old Ironsides Drive. The closest stops for VTA bus routes are on Tasman Drive, Great America Parkway, and Mission College Boulevard. VTA light rail transit service includes the Mountain View-Alum Rock (Orange) line and the Winchester-Old Ironsides (Green) line, both of which run along Tasman Drive in the Project vicinity. Old Ironsides and Reamwood are the closest light rail stations to the Project site.

The San Joaquin Regional Rail Commission manages ACE commuter rail service between the Central Valley and Silicon Valley. The Project site is served by a shuttle that travels to the Great America station. In addition, several bus stops along the Project frontage on Patrick Henry Drive and Old Ironsides Drive are served by an ACE shuttle. The Capitol Corridor Joint Powers Authority operates passenger train service (Amtrak) between San José and Sacramento, including the foothills of the Sierra Nevada, with stops at the Great America station.

Although not within walking distance, Caltrain stations are close to the Project site, approximately 4 to 5 miles away. It is expected that commuters traveling to or from the Project site would use Caltrain, which offers commuter rail service from San Francisco to Santa Clara County via San Mateo County. Commuters would access the Project site from the Sunnyvale, Lawrence, or Santa Clara Caltrain stations by bicycle, a VTA bus route, or a Caltrain shuttle.

Transit services within walking distance of the Project site (i.e., about 0.5 mile) are listed in Table 3.2-1.

Table 3.2-1. Existing Transit Services

Route	Route Description	Headways[a] (minutes)	Nearest Stop(s)
Orange LRT	Mountain View-Alum Rock	15	Old Ironsides Station and Reamwood Station
Green LRT	Winchester-Old Ironsides	15	Old Ironsides Station
Local Route 20	Milpitas Bay Area Rapid Transit – Sunnyvale Transit Center	30	Great America and Mission College
Local Route 55	Old Ironsides Station – De Anza College	25–30	Tasman and Patrick Henry; Old Ironsides and Tasman
Frequent Route 57	Old Ironsides Station – West Valley College	15	Patrick Henry and Tasman; Tasman and Old Ironsides; Great America and Old Glory
Local Route 59	Stevens Creek and Saratoga – Baypointe Station via Alviso	30	Old Ironsides and Tasman; Great America and Old Glory
Express Route 121	Gilroy/Morgan Hill – Lockheed Martin	60–120[b]	Old Ironsides and Tasman; Great America and Old Glory
ACE Green	North Santa Clara	60[c]	Multiple locations adjacent the Project site on Patrick Henry and Old Ironsides

Source: VTA.org. Accessed: January 12, 2023. Service effective January 16, 2023.

a. Headways during weekday peak commute periods.

b. Service is limited to three northbound trips in the morning and three southbound trips in the afternoon.

c. Service is limited to four westbound trips in the morning and four eastbound trips in the afternoon.

Environmental Impacts

This section describes the impact analysis related to transportation for the Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant. Measures to avoid or mitigate significant impacts accompany each impact discussion.

Thresholds of Significance

The Project would have a significant effect if it would result in any of the conditions listed below.

- Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities (TRA-1, TRA-2, TRA-3, TRA-4, and C-TRA-1);
- Conflict or be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b) (TRA-5 and C-TRA-2);

- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) (TRA-6 and C-TRA-3); or
- Result in inadequate emergency access (TRA-7 and C-TRA-4).

Methods for Analysis

The assessment of traffic impacts under CEQA has traditionally been based on increases in intersection delay, as measured by LOS. However, in 2013, Governor Brown signed SB 743, which directed OPR to develop new CEQA guidelines to replace LOS with another measure for evaluating transportation impacts under CEQA. OPR recommended using VMT, which measures the amount of vehicle trip making as well as trip length and is a direct measurement of greenhouse gas emissions. In December 2018, the California Natural Resources Agency certified and adopted the State CEQA Guidelines update and VMT approach. State CEQA Guidelines Section 15064.3 (Determining the Significance of Transportation Impacts) provides the framework for CEQA transportation analyses.

The *Kylli Mission Point Mixed-Use Development Transportation Analysis* was prepared to satisfy the requirements of the City, the VTA CMP, and CEQA in terms of VMT and multimodal qualitative analysis. The City recently adopted a VMT transportation analysis policy for environmental review. The policy sets forth screening criteria that allow various types of developments, such as infill developments, small projects, and/or transit-supportive projects near major transit corridors, to be presumed to have a less-than-significant impact on VMT. The Project would qualify as a transit-supportive project and, therefore, can be presumed to have a less-than-significant impact on VMT, as discussed in more detail below under Impact TRA-5.

The City also requires all projects to measure intersection efficiency (i.e., LOS) as part of an operational analysis outside of the CEQA-mandated transportation analysis and provide improvements or address project-related operational deficiencies. Thus, a transportation analysis, which evaluates the Project's consistency with the LOS standards set forth in the City's General Plan and identifies feasible improvements to remedy any deficiencies, was prepared by Hexagon and included in Appendix 3.2. This transportation analysis evaluates CEQA-required transportation issues, including an assessment of VMT according to the City's screening criterion; hazards; emergency access; impacts on bicycle, pedestrian, and transit facilities; and potential conflicts with any adopted program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities. It also includes, for separate use by the City, a non-CEQA analysis of road operations that identifies potential adverse effects on intersection operations resulting from anticipated Project-generated traffic and recommends measures to improve conditions. As explained in the transportation analysis, adverse LOS effects do not constitute significant impacts under CEQA and are included solely for informational purposes.

Relevant Project Components

The Mission Point PD Rezoning Application, Chapter 2 (Development Plan), Sections 2.8–2.11 (Program Layout and Access, Mobility, TDM), Chapter 3 (Open Spaces Standards), Section 3.7 (Site Circulation), and Chapter 5 (Design Guidelines & Standards), Sections 5.7–5.8 (Circulation, Parking, Loading and Service Access), includes components that would avoid or reduce potential impacts on transportation. Additional details are provided in PD Rezoning Application Chapter 4 (Streets and Streetscapes), which, along with the entire PD Rezoning Application, is incorporated by reference into the EIR.

Parking would be provided in subsurface and above-ground podium parking facilities. The Project would also provide new pedestrian and vehicular entrances, realigned roadways, and a new network of

sidewalks and bicycle lanes/paths. Democracy Way, an existing public street within the Project site, would be vacated and shifted to the south. Labeled as Kylli Drive in Project plans, the relocated roadway would be a private street with easements for public and emergency access. In its new alignment, it would allow access by vehicles, bicycles, and pedestrians but would not allow vehicular traffic through the Central Green area. It would serve as the primary vehicular gateway to the interior of the Project site and provide access to the parking garages and drop-off areas. The Project would also have two other access points along Patrick Henry Drive (one north and one south of Kylli Drive) and two along Old Ironsides Drive (one north and one south of Kylli Drive). Similar to Kylli Drive, these would not be through streets and would not connect Patrick Henry Drive to Old Ironsides Drive. However, drivers could enter or exit the Project site to/from any access point and travel to different areas within the Project site, as well as adjacent existing streets, using the below-grade parking garage. The Project would provide truck loading areas at ground level. These would be dispersed throughout the site.

The Project proposes constructing Class IV protected bicycle lanes adjacent to the Project site on Patrick Henry Drive and Old Ironsides Drive and Class II buffered bicycle lanes along the Project frontage on Tasman Drive. Within the site, the Project would include Class IV protected bicycle lanes and pedestrian walkways along Kylli Drive, which would continue through the Central Green area to connect Patrick Henry Drive and Old Ironsides Drive for bicyclists and pedestrians. The Project also would construct a new multi-use trail, the Santa Clara Trail, along the southern perimeter of the Project site, which would provide another east–west connection for bicyclists and pedestrians through the Project site. In addition, the Gateway Park area and South Park area would provide bicycle and pedestrian connectivity in a north–south direction through the Project site. The Project also would construct new sidewalks where missing and improve existing sidewalks along the Project frontages on Patrick Henry Drive, Old Ironsides Drive, and Tasman Drive.

Project objectives related to multimodal transportation include the following:

- Promote and support local, regional, and State mobility and greenhouse gas reduction objectives to reduce vehicle miles traveled and infrastructure costs through infill and mixed-use development in an existing urbanized and transit-rich area.
- Facilitate ridership of multimodal transportation and minimize vehicular infrastructure while providing efficient access to sufficient and flexible parking that meets current and future demand.
- Privatize existing Democracy Way while preserving appropriate public and emergency vehicle access.

Impacts and Mitigation Measures

Impact TRA-1: Consistency with Adopted Plans, Ordinances, and Policies Regarding Roadways. With implementation of mitigation, the Project would not conflict with an applicable plan, ordinance, or policy addressing the roadway network. (Less than Significant with Mitigation)

This section discusses the Project's impacts related to conflicts with applicable plans, ordinances, and policies. As discussed in more detail below, for CEQA purposes, the Project would be consistent with applicable plans, ordinances, and policies that address the circulation system.

Construction

Typical activities related to construction of the Project could include lane narrowing and/or lane closures. Such activities could conflict with General Plan policies that require new development to provide streets

that meet City goals and standards. Therefore, Project construction could conflict with an applicable plan, ordinance, or policy addressing the roadway network, resulting in a ***significant*** impact.

MITIGATION MEASURE. In the event of any type of closure, clear signage (e.g., closure and detour signs) must be provided to ensure vehicles are able to adequately reach their intended destinations safely. A Construction Management Plan would minimize disruptions to the roadway network caused by Project construction activities, and impacts would be ***less than significant with mitigation***.

TRA-1.1: Construction Management Plan. Prior to the issuance of each building permit, the Project Sponsor shall prepare a construction management plan for review and approval by the Public Works Department. The plan, which shall be implemented during construction, shall include at least the following items and requirements:

- A comprehensive set of traffic control measures, including measures regarding detour signs, if required; lane closure procedures; sidewalk closure procedures; signs; cones for drivers; and designated construction access routes.
- Notification procedures for adjacent property owners, the public, transit operators, and public safety personnel regarding when detours and lane closures will occur.
- The location of construction staging areas for materials, equipment, and vehicles (must be located on the Project site).
- Identification of haul routes for the movement of construction vehicles to minimize impacts on vehicular, pedestrian, and transit vehicle traffic, circulation, and safety and provisions for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul trucks can be identified and corrected. Construction vehicles shall be required to use designated truck/haul routes.
- Provisions for the removal of trash generated by Project construction activity.
- A process for responding to and tracking complaints pertaining to construction activity.
- Parking restrictions—specifically, construction vehicles and construction workers shall not be allowed to park in adjacent residential neighborhoods, and construction vehicles shall be required to park in the construction zone or in temporary parking lots onsite.
- Provisions that address the construction schedule, street closures and/or detours, construction staging areas and parking, and the planned truck routes.

Operation

The Project would be consistent with Plan Bay Area 2050 goals and performance targets for transportation system effectiveness. Specifically, the Project would increase non-auto mode share. The Project, as a mixed-use development, would develop new office, residential, retail, community, childcare, and public park uses, thereby reducing demand from single-occupancy vehicles. The Project would also develop and implement a TDM plan to provide trip reduction measures and reduce vehicular traffic in and around the Project site. In addition, the Project site, which is served by public transit facilities, would have bicycle and pedestrian facilities. This would also help to reduce demand from single-occupancy vehicles.

The Project was evaluated for compliance with CMP LOS standards. As summarized in the transportation impact analysis (Appendix 3.2), the Project would contribute to deficiencies at CMP intersections and freeway segments near the Project site. However, the Project would make fair-share payments to address

its contribution to these deficiencies. In addition, LOS is no longer a CEQA threshold. The analysis in Appendix 3.2 is provided for informational and planning purposes only.

The Project would implement a TDM plan to reduce VMT, in compliance with the City's CAP (Action T-3-1). Thus, the Project would be consistent with the City's CAP. In addition, the Project was shown to be largely in compliance with goals and policies set forth in the General Plan concerning the circulation system (see Table 3.2-2). Therefore, the Project would be consistent with the City's General Plan.

The Project would be largely consistent with applicable plans, ordinances, and policies that address the circulation system, and impacts would be ***less than significant***.

Table 3.2-2. Project Compliance with City of Santa Clara 2010–2035 General Plan

Goal/Policy	Project's Consistency
Goal 5.1.1-G4: Development of a multimodal transportation system that reduces reliance on owning and driving single-occupant vehicles.	***No conflict.*** The Project would include a comprehensive network of bicycle and pedestrian facilities, linking buildings to transit stations and nearby trails that would encourage active transportation modes. Furthermore, the Project would include TDM strategies, such as last-mile and long-haul shuttle services, transit subsidies for office workers, rideshare matching programs for all site workers and residents, preferential parking for carpools and vanpools, bikeshare and scooter programs, and parking for carshare service(s). In addition, unbundled parking would be implemented for market-rate residential units, which has been shown to reduce auto ownership and VMT.
Goal 5.3.1-G1: Reduced dependence on the single-occupant automobile.	***No conflict.*** The Project would construct a high-density, mixed-use development adjacent to a light rail transit corridor and within 0.25 mile of a high-quality bus transit corridor. In addition, the Project would implement TDM strategies to reduce the number of trips by single-occupant automobiles.
Policy 5.3.1-P12: Encourage convenient pedestrian connections within new and existing developments.	***No conflict.*** Pedestrian connections would be constructed throughout the Project site, as discussed in Chapter 2, *Project Description*. A bicycle lane and pedestrian walkway would be included along Kylli Drive East and West. This would continue past the end of Kylli Drive East and West to connect to Patrick Henry Drive and Old Ironsides Drive. In addition, the new approximately 30-foot-wide Santa Clara Trail would also provide a connection for bicyclists and pedestrians between Patrick Henry Drive and Old Ironsides Drive.
Policy 5.3.1-P13: Support high-density and high-intensity development within 0.25 mile of transit hubs and stations and along transit corridors.	***No conflict.*** The Project would include high-density/high-intensity mixed-use development and be adjacent to the Tasman light rail corridor. The Project site is within a transit priority area and currently within walking distance of several VTA light rail stations as well as Great America station, which is served by Amtrak's Capital Corridor and Altamont Corridor Express. The Central Green area of the Project site is roughly 0.25 mile from the Old Ironsides light rail transit station, a major transit stop. In addition, the Gateway Park area and South Park area of the Project site are roughly 0.25 mile from Great America Parkway, a high-quality transit corridor.

Goal/Policy	Project's Consistency
Policy 5.3.1-P14: Encourage transportation demand management strategies and the provision of bicycle and pedestrian amenities in all new development greater than 25 housing units or more than 10,000 non-residential square feet and, for City employees, decrease use of the single-occupant automobile and reduce vehicle miles traveled, consistent with the Climate Action Plan.	***No conflict.*** The Project Sponsor would implement parking and TDM programs and strategies, which would help reduce the number of vehicle trips to/from the Project site and encourage alternatives to single-occupancy vehicle travel. These programs and strategies may include subsidized transit passes, last-mile and long-haul commuter shuttles, employer rideshare assistance, bikeshare and scooter programs, emergency ride-home services, high-speed internet infrastructure to enable telecommuting, and carsharing parking consistent with the City's CAP. In addition, bicycle and pedestrian connections and amenities would be constructed throughout the Project site to encourage alternative modes of transportation.
Policy 5.3.1-P15: Require new developments and major public infrastructure projects to include adequate rights-of-way to accommodate all modes of transportation.	***No conflict.*** As described in more detail in Chapter 2, *Project Description*, the Project would include several access points from existing roadways, realigned roadways, and a new network of sidewalks and bicycle lanes. Refer to Policy 5.3.1-P12 for a discussion of pedestrian amenities. Adequate rights-of-way would be provided to accommodate all modes of transportation.
Policy 5.3.1-P16: Consolidate curb cuts with new development on arterial roadways to minimize pedestrian/vehicle conflicts at driveway locations and improve traffic flow.	***No conflict.*** The Project site would include several access points from existing roadways, realigned roadways (Kylli Drive East and West), as well as a new network of sidewalks and bicycle lanes, as described in Chapter 2, *Project Description*. The only arterial street that fronts the Project site is Tasman Drive. Currently, the Project site has six driveways along the Tasman Drive frontage. The Project would reduce the number of curb cuts on Tasman Drive to provide only a single right-turn-only driveway and a deep-profile drop-off area within the Project frontage on Tasman Drive, separated by a pedestrian/green buffer to minimize conflicts with cyclists. The proposed design would minimize impacts on pedestrian movements and improve the overall quality of the pedestrian environment.
Policy 5.3.2-P2: Encourage higher-density residential development in transit and mixed-use areas and in other locations throughout the city where appropriate.	***No conflict.*** The Project would incorporate mixed-use development with high- and very high-intensity office/research-and-development, residential, retail, childcare, and community uses adjacent to major transit nodes. Up to 1,800 high-density housing units could be provided in an area that is accessible from local and regional public transportation. The Project meets the City's definition of a transit-supportive project due, in part, to its proposed residential density (approximately 132 dwelling units per acre in Area D) and its proximity to major transit stops (Old Ironsides and Reamwood light rail stations) as well as transit stops along a high-quality transit corridor (Great America Parkway).
Policy 5.3.2-P3: Encourage below-grade parking and parking structures for development in Medium-Density and High-Density designations.	***No conflict.*** The Project would include up to 9,400 parking spaces in a combination of below-grade and above-grade podium parking facilities. A minimal number of surface parking spaces (i.e., 80 stalls, which is about 1 percent of total onsite parking) are proposed along Kylli Drive West and Kylli Drive East and adjacent to the southernmost Project driveways on Patrick Henry Drive and Old Ironsides Drive.

Goal/Policy	Project's Consistency
Policy 5.3.2-P21: Encourage new housing developments to incorporate design features, programs, and incentives for increased transit ridership and decreased parking demand.	***No conflict.*** The Project would incorporate shared parking that would reduce the demand for onsite parking. In addition, unbundled parking for market-rate residential uses would be implemented to reduce auto ownership and parking demand from residents. The Project also would implement a variety of TDM strategies, such as last-mile and long-haul shuttles, transit subsidies for office workers, real-time transit information displays, and a network of bicycle and pedestrian facilities, linking buildings to transit stations and nearby trails.
Goal 5.3.3-G3: Sufficient commercial services for residents and businesses that are accessible using alternative transportation modes.	***No conflict.*** The Project would provide a day-care facility and up to 100,000 square feet of neighborhood retail uses on a site adjacent to the Tasman light rail corridor and within 0.5 mile of a high-quality transit corridor on Great America Parkway. The Project would construct new and improved sidewalks along the perimeter as well as a network of pathways within the site, including a new multi-use trail along the southern edge of the site that would connect to nearby trails and transit stations. In addition, because density would be increased, retail and commercial uses would be more concentrated on the site and, therefore, more accessible from alternative transportation modes.
Goal 5.3.4-G3: Mixed-use development that maximizes accessibility to alternative transportation modes and integrates bicycle, pedestrian, transit, open space, and outdoor uses to encourage active centers.	***No conflict.*** The Project would be a mixed-use project that would emphasize accessibility to alternative transportation modes. The Project site is currently within walking distance from multiple VTA light-rail stations and Great America Station. Bicycle and pedestrian networks would be integrated into the site, including onsite bicycle lanes and sidewalks that would connect to offsite bicycle lanes and sidewalks. The Project would include retail, office/R&D, childcare, and community uses that would be concentrated around open spaces.
Policy 5.3.4-P14: Provide a network of streets and pedestrian connections in large mixed-use developments.	***No conflict.*** The Project would vacate the Democracy Way, an existing public street easement within the Project site, and construct a new private roadway, Kylli Drive West and Kylli Drive East, with sidewalks on each side, Class IV protected bicycle lanes, and easements for public and emergency access south of the current alignment. Vehicular access to the Project site would be available from Kylli Drive West and Kylli Drive East and from the existing perimeter streets, Tasman Drive, Patrick Henry Drive, and Old Ironsides Drive. Although vehicles would not be able to drive across the Project site at grade from one side to another, vehicular circulation below grade would enable drivers to access all development areas via any driveway. The pedestrian network would include perimeter pathways, sidewalks, and trails, including the Santa Clara Trail to the south and continuous sidewalks around the perimeter. Within the Project site, a series of pathways is proposed, both adjacent to the proposed buildings as well as meandering through open spaces to allow efficient connections between a variety of uses onsite and at nearby destinations.

Goal/Policy	Project's Consistency
Policy 5.3.4-P15: Maximize opportunities to connect streets, bicycle facilities, and pedestrian pathways to improve accessibility between mixed-use development and surrounding neighborhoods, parks, open spaces, transit, and public amenities. Provide clear signage, high visibility, adequate lighting, and special paving to enhance bicycle and pedestrian facilities.	***No conflict.*** The Project would construct new and improved sidewalks along the Project frontage that would improve access to the Old Ironsides and Reamwood light rail stations and nearby bus stops. Along the southern edge of the site, a new multi-use pathway, the Santa Clara Trail, is proposed adjacent to the SFPUC ROW. This new trail would ultimately connect the Project site to Calabazas Creek Trail, San Tomas Aquino Creek Trail, and the Guadalupe River Trail. Furthermore, the Project would include a central green spine that would connect with the central linear park within the Patrick Henry Drive Specific Plan area. Traffic signage, pavement striping and markings, lighting, and enhanced paving treatments would be designed in accordance with applicable codes and current engineering practices and subject to approval by the City as part of Project entitlement.
Goal 5.3.5-G3: Higher-intensity employment centers located near major transit services and major transportation corridors to reduce vehicle miles traveled.	***No conflict.*** The Project would include high-intensity employment within a mixed-use development. The proposed office/lab space would have a floor area ratio of approximately 1.97 (3 million square feet divided by 34.9 acres of total land area, excluding Area D), which exceeds the minimum floor area ratio of 0.75 set by the City to be considered a transit-supportive project. Furthermore, the Project would be within 0.5 mile of two existing major transit stops (Old Ironsides and Reamwood light rail stations) as well as existing transit stops along high-quality transit corridors on Great America Parkway and Tasman Drive. The Project's density and proximity to transit would be expected to reduce VMT.
Policy 5.3.5-P8: Encourage the provision of services and amenities as part of larger developments in employment areas that cater to lunchtime and service needs, such as dry cleaners, to reduce vehicle miles traveled.	***No conflict.*** The Project would develop up to 3 million square feet of office/lab space as part of a mixed-use neighborhood. Ground-floor retail space and community spaces proposed by the Project would provide onsite workers with shopping, dining, entertainment, and recreational opportunities, as well as personal services, that would not require travel by vehicle. In addition, the Project would include a day-care facility that would reduce the number of trips by parents who live and/or work onsite.
Policy 5.5.2-P9: Improve pedestrian amenities, including sidewalks and bicycle paths, to promote neighborhood compatibility.	***No conflict.*** The Project would include new and improved bicycle and pedestrian connections, trails, and public parks with links to the Patrick Henry Drive Specific Plan area and other neighborhoods and enhance connections to nearby amenities and recreational destinations through creative use of plazas and pathways.
Policy 5.5.2-P10: Encourage below-grade parking to accommodate parking demand and reduce overall building height and massing in transition areas.	***No conflict.*** The Project would include a combination of below-grade and above-grade podium parking. Approximately one-third of all parking spaces onsite (approximately 3,220 spaces out of 9,400 total spaces) would be below grade. The provision of below-grade parking would reduce the number of levels in the above-grade parking structures.
Goal 5.8.1-G2: Transportation networks that provide a safe, efficient, convenient, and integrated system to move people and goods.	***No conflict.*** The Project would foster strong connectivity, access, and circulation for a mix of travel modes, including cycling, walking, driving, and transit.

Goal/Policy	Project's Consistency
Goal 5.8.1-G3: Transportation networks that promote a reduction in the use of personal vehicles and vehicle miles traveled.	***No conflict.*** The Project would qualify as a transit-supportive project because it would meet the criteria established by the City related to proximity to transit, density, multimodal transportation networks, transit-oriented design elements, parking, and affordable housing. In addition, the Project would use the existing and future transportation network, as well as TDM strategies and goals, to further reduce VMT. Kylli Drive East and West, bicycle paths, and sidewalks throughout the site would connect to existing transit options that are currently within walking distance. VTA operates a light rail service with numerous nearby stops along Tasman Drive north of the Project site, including Old Ironsides Station (less than 500 feet away), Reamwood Station (less than 1,000 feet away), and Great America Station (approximately 0.3 mile away). Amtrak's Capital Corridor and Altamont Corridor Express operate along the Union Pacific Railroad (UPRR) ROW and provide service to the Project area from Great America Station, located at Lafayette Street and Tasman Drive (approximately 1 mile from the Project site). The construction of new bicycle paths and sidewalks that connect to existing major arterials would allow greater access to the Project site and greater access to different modes of transit.
Policy 5.8.1-P1: Create accessible transportation network systems to meet the needs of all segments of the population, including youth, seniors, persons with disabilities, and low-income households.	***No conflict.*** The Project would include infrastructure and pedestrian amenities that would be designed to augment safety for people of all ages and abilities, with improvements such as wider sidewalks, protected and buffered bicycle lanes, and upgraded curb ramps to ensure compliance with ADA guidelines.
Policy 5.8.1-P2: Link all city transportation networks, including bicycle and pedestrian circulation networks, to existing and planned regional networks.	***No conflict.*** The Project proposes constructing new transportation networks, including bicycle and pedestrian pathways, throughout the Project site. As part of the Project, a bicycle lane and pedestrian walkway would be included along Kylli Drive East and West, which would continue to bisect the Project site in an east–west direction. The bicycle lane and pedestrian walkway would continue past the end of Kylli Drive East and West and connect to Patrick Henry Drive and Old Ironsides Drive. The new Santa Clara Trail would also provide a bicycle and pedestrian connection between Patrick Henry Drive and Old Ironsides Drive. Santa Clara Trail would be approximately 30 feet in width. In addition, the other open space areas (i.e., Gateway Park Area and South Park Area) would bisect the Project site in a north–south direction and connect Tasman Drive and Santa Clara Trail and provide bicycle and pedestrian connectivity. Bicycle lanes would also be provided around the exterior of the Project site along Tasman Drive, Patrick Henry Drive, and Old Ironsides Drive. These new bicycle and pedestrian facilities would connect the Project site to regional bus and rail systems, including VTA and Amtrak's Capitol Corridor.

Goal/Policy	Project's Consistency
Policy 5.8.1-P3: Identify opportunities to connect people to supportive services, public amenities, and transit.	***No conflict.*** The Project site is adjacent to the Tasman light rail corridor and within 0.5 mile of a high-quality transit corridor along Great America Parkway. The Project would include bicycle and pedestrian facilities, including new and improved sidewalks along the perimeter roadways and a new multi-use pathway, the Santa Clara Trail, along the southern edge of the Project site that would ultimately connect to transit stations; public open spaces along Calabazas Creek Trail, the John W. Christian Greenbelt, San Tomas Aquino Creek Trail, and the Guadalupe River Trail; neighborhood parks; and recreational opportunities along the bayfront. Travel between the Project site and the nearest Emergency Assistance Network agency, the Salvation Army, located at 3090 Homestead Road in Santa Clara, is available from VTA Frequent Network bus Route 57, which stops at Tasman Drive and Old Ironsides Drive adjacent the Project site and at Kiely Boulevard and Homestead Road, approximately 0.5 mile from the Salvation Army. The nearest Santa Clara City Library is the Northside Branch. Residents of the Project site could use VTA bus Routes 57 and 20 to access this branch library. The City's Youth and Teen Center, located at 2446 Cabrillo Avenue, is also accessible from VTA bus Route 57, while the Santa Clara Youth Soccer Park, located at 5020 Stars and Stripes Drive, is accessible from VTA at the Old Ironsides-Winchester (Green) light rail line.
Policy 5.8.1-P4: Expand transportation options and improve alternative modes that reduce greenhouse gas emissions.	***No conflict.*** The Project would expand transportation options and improve alternative modes of transit, which would help reduce GHG emissions by constructing new and improved sidewalks along perimeter roadways as well as a new multi-use pathway, the Santa Clara Trail, along the southern edge of the Project site. Within the Project site, a network of sidewalks and pathways would encourage active transportation modes, such as biking and walking, as well as emerging transportation technologies. The Project also would implement a variety of TDM strategies, such as participation in last-mile and long-haul shuttle services, to reduce VMT and greenhouse gas emissions.
Policy 5.8.1-P5: Work with local, regional, State, and private agencies, as well as employers and residents, to encourage programs and services that reduce vehicle miles traveled.	***No conflict.*** The Project qualifies as a transit-supportive project because it meets the criteria established by the City related to proximity to transit, density, multimodal transportation networks, transit-oriented design elements, parking, and affordable housing. The Project would implement a variety of TDM strategies to promote more efficient utilization of transportation facilities and maximize the use of sustainable transportation, which would reduce VMT, congestion, and greenhouse gas emissions. The Project would form a Transportation Management Association to oversee and coordinate TDM activities of various employers and residential communities onsite. The Transportation Management Association may include other proximate developments, employers, or residential developments in nearby Focus/Specific Plan areas.

Goal/Policy	Project's Consistency
Goal 5.8.2-G3: A roadway network designed to accommodate alternative transportation modes in addition to vehicles.	***No conflict.*** The Project would foster strong connectivity, access, and circulation for a mix of travel modes through design elements that support all travel modes, including cycling, walking, transit, micro-mobility, and driving. In addition, the Project would accommodate rideshare, shuttle, and emerging and evolving transportation modes. The proposed roadway network includes bicycle lanes throughout the Project site and along Tasman Drive, Patrick Henry Drive, and Old Ironsides Drive. Sidewalks would be included along Kylli Drive East and West and throughout the Project site. Bicycle and pedestrian facilities would be integrated into the surrounding existing roadway network to allow greater flexibility in transportation choices.
Policy 5.8.2-P9: Require all new development to provide streets and sidewalks that meet City goals and standards, including new development in employment areas.	***No conflict.*** The Project would construct new and improved sidewalks along the Project frontage on Tasman Drive, Patrick Henry Drive, and Old Ironsides Drive as well as a new multi-use path, the Santa Clara Trail, along the southern edge of the site. Democracy Way, an existing public street easement within the Project site, would be vacated and shifted to the south. The relocated roadway, referred to as Kylli Drive, would be a private street with easements for public and emergency access. In its new alignment, it would allow access by vehicles, bicycles, and pedestrians but would not allow vehicular traffic through the Central Green area. It would serve as the primary vehicular gateway to the interior of the Project site and provide access to the parking garages and drop-off areas. Consistent with the City Bicycle Master Plan Update from 2018, the Project would construct Class IV protected bicycle lanes adjacent to the Project site on Patrick Henry Drive and Old Ironsides Drive and Class II buffered bicycle lanes along the Project frontage on Tasman Drive. Within the site, the Project would include Class IV protected bicycle lanes and pedestrian walkways along Kylli Drive, which would continue through the Central Green area to connect Patrick Henry Drive and Old Ironsides Drive for bicyclists and pedestrians. The final design of streets and sidewalks within and adjacent to the Project site would be subject to approval by the City as part of Project entitlement.
Policy 5.8.2-P12: Coordinate transportation planning with emergency service providers to ensure continued emergency service operations and services.	***No conflict.*** The circulation diagram and access points, which have been reviewed by the City Traffic Engineer, will be enhanced and coordinated with the Santa Clara Fire Department to allow adequate emergency access to the Project site. Because of increased traffic as a result of the Project, general emergency response times could be affected. However, as detailed in Section 3.13, *Public Services and Recreation*, response times to emergencies on the Project site would not be affected by traffic.
Policy 5.8.3-P8: Require new development to include transit stop amenities, such as pedestrian pathways to stops, benches, traveler information, and shelters.	***No conflict.*** The Project would construct new and improved sidewalks along the site frontage on Tasman Drive, Patrick Henry Drive, and Old Ironsides Drive as well as a network of internal sidewalks and pathways to connect the Project site to nearby transit stops. The Project would also implement real-time transit information displays throughout the site as one element of the TDM plan to promote sustainable modes of transportation. In addition, onsite bus/shuttle stops and passenger drop-off zones for rideshare users within the Project site would allow for transit, shuttle, or other micro-transit services (whether provided by VTA, a transportation management agency, or a private provider).

Goal/Policy	Project's Consistency
Policy 5.8.3-P9: Require new development to incorporate reduced onsite parking and provide enhanced amenities, such as pedestrian links, benches, and lighting, in order to encourage transit use and increase access to transit services.	***No conflict.*** The Project would include parking, as allowed within the proposed Urban Center Mixed-Use district. Because of the opportunity for shared parking at the Project site, the overall parking ratios at the site would be lower than the City Code requirements that would have otherwise been applied. The Project would provide up to 9,400 parking spaces for proposed uses, a reduction of approximately 21 percent compared to the customary and generally applicable parking ratios set forth in the City's Zoning Code, which ordinarily prescribes approximately 11,900 parking spaces. By not providing excess parking, and by implementing a TDM plan, the Project would encourage the use of alternative modes to reduce the number of single-occupant vehicles. In addition, amenities incorporated into the Project that would encourage transit use and increase access to transit services include a bicycle and pedestrian network, linking buildings to transit stations and real-time transit information displays throughout the site. In addition, the TDM strategies include last-mile and long-haul shuttle services and transit subsidies for office workers.
Policy 5.8.4-P6: Require new development to connect individual sites with existing and planned bicycle and pedestrian facilities, as well as with on-site and neighborhood amenities/services, to promote alternative modes of transportation.	***No conflict.*** The Project would include an internal circulation network that would connect to all forms of transportation in the vicinity of the Project site, including bicycle and pedestrian facilities and transit. Furthermore, the Project would include a central green spine that would connect with the central linear park at the neighboring Patrick Henry Drive Specific Plan area, ensuring that residents, workers, and visitors of both communities would be able to access nearby amenities and services from active transportation modes.
Policy 5.8.4-P8: Require new development and public facilities to provide improvements, such as sidewalks, landscaping, and bicycle facilities, to promote bicyclist and pedestrian use.	***No conflict.*** The Project would construct new and improved sidewalks and bicycle facilities along the Project frontage and within the Project site. Landscaping would make use of selected species that provide shade and visual interest, with minimal root damage to sidewalks, leaf litter, and fruit drop to promote bicyclist and pedestrian use. The Project would also include end-of-trip bicycle facilities, including short-term and long-term bicycle parking, bicycle repair stations, and showers and lockers in office buildings to promote bicycle use.
Goal 5.8.5-G1: Transportation demand management programs for all new development in order to decrease vehicle miles traveled and single-occupant vehicle use.	***No conflict.*** The Project would include TDM strategies and goals that would reduce VMT and single-occupant vehicle use consistent with the 2022 City CAP. Onsite design measures may include preferred carpool and vanpool parking. Participation by major employers in programs that reduce the amount of driving would be encouraged, potentially including efforts to promote private commuter bus service, carpooling, vanpooling, ride-sharing, subsidized transit passes for employees, secure bicycle facilities, telecommuting, and flexible work schedules.

Goal/Policy	Project's Consistency
Policy 5.8.5-P1: Require new development and City employees to implement transportation demand management programs that include site-design measures, including preferred carpool and vanpool parking, enhanced pedestrian access, bicycle storage, and recreational facilities.	***No conflict.*** The Project would include a variety of TDM strategies, including preferential parking for carpools and vanpools; a network of bicycle and pedestrian pathways, linking buildings to transit stations and nearby trails; dedicated curb space for ride-hail and taxi service passenger loading; long-term and short-term bike parking; and other design measures, services, and incentives to reduce travel by single-occupant vehicles.
Policy 5.8.5-P2: Require development to offer on-site services, such as ATMs, dry cleaning, exercise rooms, cafeterias, and concierge services, to reduce daytime trips.	***No conflict.*** The Project site would include onsite services. Although the exact types of services are currently unknown, it is likely that the Project site would include ATMs, dry cleaning facilities, exercise rooms, cafeterias, and concierge services. In addition, the Project would include a day-care facility that would reduce trips by parents who live and/or work onsite.
Policy 5.8.5-P3: Encourage all new development to provide on-site bicycle facilities and pedestrian circulation.	***No conflict.*** The Project would provide a complete network of cycling infrastructure, including protected or buffered bicycle lanes around the site perimeter, clear pathways through the site interior, and a multi-use trail system along the southern edge of the site. Long-term and short-term bicycle parking options, self-service repair amenities, and showers and locker facilities in all office buildings would encourage bicycle use. Project pedestrian facilities would include perimeter pathways, sidewalks and trails, internal sidewalks adjacent to buildings, and meandering pathways through open space areas.
Policy 5.8.5-P4: Encourage new development to participate in shuttle programs to access local transit services within the city, including buses, light rail, Bay Area Rapid Transit, Caltrain, Altamont Commuter Express Yellow Shuttle, and Lawrence Caltrain Bowers/Walsh Shuttle services.	***No conflict.*** The Project would include TDM strategies, including last-mile and long-haul commuter shuttles to promote transit and shuttle ridership. In addition, onsite bus/shuttle stops and passenger drop-off zones for rideshare users within the Project site would allow for transit, shuttle, or other micro-transit services (whether provided by VTA, a transportation management agency, or a private provider).
Policy 5.8.5-P5: Encourage transportation demand management programs that provide incentives for the use of alternative travel modes to reduce the use of single-occupant vehicles.	***No conflict.*** The Project would include TDM strategies and goals that would promote alternative travel modes and reduce single-occupant vehicle use, consistent with the 2022 City CAP. Participation by major employers in programs to reduce the amount of driving would be encouraged, potentially including efforts that promote private commuter bus service, carpooling, vanpooling, ride-sharing, parking management, subsidized transit passes for employees, secure bicycle facilities, telecommuting, and flexible work schedules.

Goal/Policy	Project's Consistency
Policy 5.8.5-P6: Encourage transportation demand management programs that include shared bicycle and autos for part-time use by employees and residents to reduce the need for personal vehicles.	***No conflict.*** The Project would include TDM strategies, such as participation in a regional bikeshare or scooter program and/or establishment of an onsite bicycle and scooter fleet; other strategies include reserving onsite parking spaces for carshare service(s).
Policy 5.8.5-P7: Promote programs that reduce peak-hour trips, such as flexible work hours, telecommuting, home-based businesses, and off-site business centers, and encourage businesses to provide alternate off-peak hours for operations.	***No conflict.*** The Project would include TDM strategies, including high-speed internet infrastructure to enable telecommuting. Participation by major employers in programs to reduce the amount of driving would be encouraged, potentially including efforts that promote private commuter bus service, carpooling, vanpooling, ride-sharing, parking management, subsidized transit passes for employees, secure bicycle facilities, telecommuting, and flexible work schedules.
Policy 5.8.5-P9: Promote transportation demand management programs that provide education, information, and coordination to connect residents and employees with alternative transportation opportunities.	***No conflict.*** The Project would include real-time transit information displays throughout the site. In addition, the Project would implement a TDM program, with measures such as an onsite transportation coordinator to distribute transportation news and commuter alerts; a website with links to appropriate websites, apps, and other resources, such as "511;" a marketing program to disseminate information on commute options; TDM information packets for new employees and residents; and a rideshare matching program for all site workers and residents.
Goal 5.8.6-G2: A parking supply that encourages the use of alternative transportation modes.	***No conflict.*** A new parking standard would be adopted as part of the Project's Planned Development zoning. Because of the opportunity for shared parking at the Project site, parking ratios would be lower than the City Code requirements that would otherwise have been applied. By not providing excess parking, and by implementing a TDM plan, the Project would encourage the use of alternative travel modes to reduce the number of single-occupant vehicles. In addition, the Project would implement a shared parking model that would reduce the Project area devoted to vehicle parking, thereby promoting a compact, walkable environment that would reduce VMT.
Policy 5.8.6-P1: Allow alternative parking standards for mixed-use development, development that meets specified transportation demand management criteria, and senior/group and affordable housing developments as well as areas in downtown and areas within 0.25 mile of transit centers and stops.	***No conflict.*** As a mixed-use development, the Project would include alternative (i.e., shared) parking standards. The parking ratios for office/lab space, residential uses, and retail space are less than the code requirements in effect in other areas. The reduced parking ratios reflect the efficiency of shared parking in a mixed-use development, the site's proximity to transit services, as well as reductions in vehicle ownership due to TDM strategies, such as unbundled parking, that would be implemented by the Project.

Goal/Policy	Project's Consistency
Policy 5.8.6-P4: Encourage shared, consolidated, and/or reduced parking in mixed-use centers and within 0.25 mile of transit centers and stops.	***No conflict.*** The Project would include a mixed-use center within 0.25 mile of transit stops. A new parking standard would be provided as part of the Project's adopted Planned Development zoning. Because of the opportunity for shared parking at the Project site, the overall parking ratios at the Project site would be lower than the City Code requirements that would otherwise have been applied. In addition, the Project would implement a shared parking model that would support reduced parking ratios for office/lab space, residential uses, and retail space. Because the Project site is located within 0.5 mile of a transit stop, pursuant to SB 2097, there is no minimum parking requirement for the Project. Furthermore, the site's proximity to transit services, implementation of unbundled parking for market-rate residential units, and other TDM strategies that would be implemented by the Project would reduce the demand for vehicle parking onsite.
Policy 5.8.6-P5: Allow alternative parking techniques, such as parking lifts, automated parking, and tandem parking, in order to reduce the land area devoted to parking.	***No conflict.*** The generally applicable parking ratios set forth in the City Code would ordinarily prescribe approximately 11,900 parking spaces for a development with the Project's scale and land uses. However, because the Project site is within 0.5 mile of a transit stop, pursuant to SB 2097, there is no minimum parking requirement for the Project. The Project would implement a shared parking model with a maximum of 9,400 parking spaces, thereby reducing the land area devoted to parking. To ensure the efficiency of shared parking, available parking technology, including an internal wayfinding system to guide drivers to available spaces, would be implemented. Other parking management techniques that may be implemented include the elimination of outside gates, license plate recognition, mobile apps, various car lifts/stackers, and/or valets. Alternative parking techniques, such as parking lifts, automated parking, and tandem parking, could be considered (but may not ultimately be implemented) for the Project.
Policy 5.9.1-P3: Provide trails along creeks and other rights-of-way to link parks, open spaces, bicycle facilities, and transit services with residential neighborhoods and employment centers.	***No conflict.*** The Project would construct a multi-use trail along the southern edge of the site adjacent to the SFPUC ROW. Furthermore, the Project would include a central green spine that would connect the Project's Neighborhood Park and the neighboring Patrick Henry Drive Specific Plan area. The Project's pedestrian and bicycle circulation would facilitate connections to nearby parks, open spaces, bicycle facilities, transit services, neighborhoods, and employment centers.
Policy 5.9.1-P4: Provide connections between private and public open space through publicly accessible trails and pathways and by orienting open spaces to public streets.	***No conflict.*** The Project's proposed bicycle and pedestrian circulation would facilitate connections to open spaces within the Project site as well as public parks and open spaces beyond the Project boundaries. The Project would include a multi-use trail, the Santa Clara Trail, along the southern boundary of the site, that would facilitate linkages to Calabazas Creek Trail, the John W. Christian Greenbelt, San Tomas Aquino Creek Trail, and the Guadalupe River Trail. Within the Project site, a Neighborhood Park would extend in a north–south direction from the Gateway Park area, nearby to the Old Ironsides light rail stop on Tasman Drive, to the South Park and Santa Clara Trail areas.
Policy 5.9.3-P5: Maintain emergency traffic preemption controls for traffic signals.	***No conflict.*** The Project would facilitate the provision of emergency services and would not conflict with City emergency traffic preemption controls for traffic signals.

Goal/Policy	Project's Consistency
Policy 5.10.2-P1: Support alternative transportation modes and efficient parking mechanisms to improve air quality.	***No conflict.*** The Project site would support the alternative transportation modes and efficient parking mechanisms to improve air quality. New bicycle and pedestrian facilities proposed for the Project site would connect to regional bus and rail systems, including VTA, Amtrak's Capitol Corridor, and Altamont Corridor Express. With the proposed pedestrian connections, the Project site would be within walking distance of several VTA light rail stations and Great America Station on the UPRR ROW. Easy connections and accessibility to public transportation stations would help reduce the number of vehicle trips and air quality emissions. In addition, the Project could include electric-vehicle charging capabilities and would implement reduced parking ratios through the use of strategies such as unbundled parking for market-rate residential units and shared parking to reduce the Project area devoted to parking. Furthermore, the Project would implement TDM strategies, such as last-mile and long-haul shuttle services, transit subsidies for office workers, and rideshare matching programs to reduce VMT, consistent with the City's CAP goals for greenhouse gas reductions.
Policy 5.10.2-P2: Encourage development patterns that reduce vehicle miles traveled and air pollution.	***No conflict.*** The goal of encouraging development patterns that reduce VMT and air pollution is a citywide goal. The City supports development patterns that reduce VMT and related air pollution by encouraging higher density development in transit rich locations, and applying all feasible mitigation and best management practices to new development projects. The Project qualifies as a transit-supportive project because it meets the criteria established by the City related to proximity to transit, density, multimodal transportation networks, transit-oriented design elements, parking, and affordable housing. The Project site would be located adjacent to transit stations, which could be used by onsite residents and employees for commuting to the Project site. In addition, regional trail networks are adjacent to the Project site. Bicycle and pedestrian connections would link the Project site to these alternative modes of transportation and trails. As discussed in Section 3.3, *Air Quality*, BAAQMD recognizes that air quality is a cumulative problem, which BAAQMD's 2017 Clean Air Plan aims to address. The Project would support the goals of the 2017 Clean Air Plan, would include all applicable control measures and would not conflict with implementation of the 2017 Clean Air Plan.

Source: City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan*. Adopted: November 16, 2010. Last amended: December 9, 2014. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan. Accessed: October 14, 2022.

Impact TRA-2: Consistency with Adopted Plans, Ordinances, and Policies Regarding Transit. With implementation of mitigation, the Project would not conflict with an applicable plan, ordinance, or policy addressing public transit. (Less than Significant with Mitigation)

Construction

Project construction activities could temporarily impede light rail transit or bus operations or close the bus stop adjacent to the Project frontage on Tasman Drive. This would conflict with General Plan policies that encourage development of a multimodal transportation system. Therefore, Project construction could conflict with an applicable plan, ordinance, or policy addressing public transit, resulting in a ***significant*** impact.

Any changes to light rail or bus operations during construction would require prior approval and adequate countermeasures approved by VTA. Mitigation Measure TRA-1.1, *Construction Management Plan*, would include provisions to maintain these facilities and services, and impacts would be ***less than significant with mitigation***.

Operation

Existing transit service for the Project site includes an ACE shuttle and five VTA routes along Great America Parkway and Tasman Drive. The Project site is about a 3- to 10-minute walk (less than 0.5 mile) from the Old Ironsides light rail station and the Reamwood light rail station on Tasman Drive. Bus stops serving the ACE shuttle are currently located along the Project site frontage on Patrick Henry Drive and Old Ironsides Drive, with additional bus stops for VTA bus routes on Great America Parkway and Tasman Drive. The Project would not interfere or conflict with these existing transit facilities.

As listed in Table 3.2-2, the Project would comply with City General Plan goals and policies related to public transit by incorporating the following elements:

- Transit subsidies for office workers (Goal 5.1.1-G4)
- A mixed-use, high-density/high-intensity development, including residential, office, retail, and community uses adjacent to the Tasman light rail corridor and a high-quality bus transit corridor on Great America Parkway (Policies 5.3.1-P13, 5.3.2-P2 and Goal 5.3.5-G3)
- Unbundled parking for market-rate residential uses to reduce auto ownership and incentivize transit ridership (Policy 5.3.2-P21)
- A dense network of bicycle and pedestrian pathways within the Project site and new and improved sidewalks along the site frontage leading to nearby transit stops within walking distance of the Project site (Goal 5.3.4-G3 and Policy 5.8.3-P8)
- Onsite bus/shuttle stops and real-time transit information displays throughout the site (Policy 5.8.3-P8)
- Reduced onsite parking compared to the parking ratios set forth in the City's Zoning Code to encourage transit use (Policy 5.8.3-P9)
- Last-mile and long-haul commuter shuttles to promote transit and shuttle ridership (Policy 5.8.5-P4)

The Project is expected to implement a TDM plan that would include transit subsidies and shuttles to and from the Sunnyvale Caltrain station, the Milpitas Bay Area Rapid Transit (BART) station, and the Great America Rail station, along with other measures to increase public transit ridership. The effect of the transit subsidy and last-mile shuttle services would depend on the amount of the subsidy, the shuttle routes and headways, and the specific mix of other TDM measures implemented by the Project Sponsor. The Project's ability to generate increased transit ridership through dense and transit-supportive land uses, a pedestrian-oriented street design, and TDM measures would be consistent with VTA Transit

Service Guidelines, which guide VTA service planning, including route determination, service levels, and capacity (ridership coverage).[9] Therefore, this effect of the Project would be beneficial.

Regarding transit vehicle performance, light rail vehicles benefit from transit signal priority. Thus, the increase in automobile trips generated by the Project is not expected to affect light rail travel speeds or delays.

The growth in traffic volumes associated with the Project could affect the speed of VTA buses because they share travel lanes with commuters. An evaluation of the effects of Project traffic on transit vehicle delay was completed in the *Kylli Mission Point Mixed-Use Development Transportation Analysis Report* for bus routes that serve the Project vicinity.[10] The analysis shows that, for most routes, traffic associated with the Project would increase delay for transit vehicles by roughly 30 seconds to 3 minutes over the entire length of a route. Neither the City nor the VTA has established policies or significance criteria related to transit vehicle delay. Thus, the data are presented for informational purposes only.

Although VTA's Recommended 2023 Transit Service Plan does not call for new transit service adjacent to or within the Project site, the Project proposes to include shuttle stops onsite that would allow for shuttle or other micro-transit services provided by VTA, a Transportation Management Agency, or a private provider. Furthermore, the City will impose conditions of approval that will require the Project to work with VTA to enhance the existing bus stops along the Project frontage. Thus, the Project impact on transit services would be ***less than significant***.

Impact TRA-3: Consistency with Adopted Plans, Ordinances and Policies Regarding Bicycle Facilities. With implementation of mitigation, the Project would not conflict with an applicable plan, ordinance, or policy addressing bicycle facilities. (Less than Significant with Mitigation)

Construction

Project construction activities could result in the temporary closure of bike lanes on Tasman Drive. This would conflict with General Plan policies that encourage development of a multimodal transportation system and 2018 Bicycle Plan Update Policy 2.C.4, which states that bicycle lanes shall be maintained next to construction zones whenever feasible. Therefore, Project construction could conflict with an applicable plan, ordinance, or policy addressing bicycle facilities, resulting in a ***significant*** impact.

Any changes to existing bicycle facilities would require prior approval or adequate countermeasures approved by the Public Works Department. Mitigation Measure TRA-1.1, *Construction Management Plan,* would include provisions to maintain bicycle connections within the Project vicinity. Impacts would be ***less than significant with mitigation***.

[9] According to VTA's Transit Service Guidelines (revised September 2019), route frequency is determined by demand and policy, with higher ridership demand warranting more frequent bus service (p. 10); in addition, the guidelines note that high-density land uses that are transit supportive generate higher ridership (p. 3). VTA's focus on "ridership-oriented service" (p. 2) depends on three elements: attractive transit service, dense and transit-supportive land uses, and pedestrian-oriented street designs (p. 3). The Project is consistent with the second and third elements; although the Project would provide facilities and programs to promote transit and shuttle ridership, such as real-time transit information displays and transit subsidies for office workers, the first element, "attractive transit service," would be dependent on VTA policy.

[10] *Kylli Mission Point Mixed-Use Development Transportation Analysis,* Table 19.

Operation

The Project site is near many existing bicycle facilities, including trails along Calabazas Creek and San Tomas Aquino Creek and bicycle lanes on Tasman Drive, Great America Parkway, and other streets. In addition, the bicycle and pedestrian bridge over Calabazas Creek, southwest of the Project site, connects to the John W. Christian Greenbelt in Sunnyvale.

Future residents of the Project site would be able to ride to work using bicycle lane and bicycle trail connections to surrounding employment areas. Existing employment zones north of the Project site would be accessible via bicycle lanes on Great America Parkway or via the Calabazas Creek Trail. Bicycle lanes on Tasman Drive would provide a route to other opportunities planned as part of the Related Santa Clara (formerly "City Place") development. These bicycle lanes could also be used to reach the North San José employment area, and the Guadalupe River Trail could be used to reach downtown San José. Employment areas south of the Project site would be reached via the San Tomas Aquino Creek Trail or bicycle lanes on Great America Parkway/Bowers Avenue. The same bicycle facilities would allow future employees on the Project site to ride to work from established residential neighborhoods south of US 101 and from new nearby planned residential developments in North Santa Clara.

As listed in Table 3.2-2, the Project would be consistent with General Plan goals and policies related to bicycle transportation by incorporating the following Project elements:

- Long-term and short-term bicycle parking (Policy 5.8.5-P1)

The Project also would upgrade and improve the existing arterial bikeway network to increase bicyclist comfort and lower barriers for more risk-averse users, as set forth in the City's 2018 Bicycle Master Plan Update, Policy 2.B.2. As described earlier, the Project would construct the following bikeway facilities, as recommended in the 2018 Bicycle Master Plan Update:

- Class IV protected bicycle lanes on Patrick Henry Drive adjacent to the Project site,
- Class IV protected bicycle lanes on Old Ironsides Drive adjacent to the Project site,
- Class II buffered bicycle lanes along the site frontage on Tasman Drive, and a
- Multi-use trail, Santa Clara Trail, along the southern perimeter of the Project site adjacent to the SFPUC right of way.

Within the site, the Project would provide Class IV protected bicycle lanes on Kylli Drive West and Kylli Drive East that would connect through the Central Green area.

Because the Project would improve bicycle facilities along the perimeter and within the Project site and provide safer conditions for bicyclists relative to existing conditions, consistent with the City's General Plan and the 2018 Bicycle Master Plan Update, the Project's impact on bicycle facilities would be ***less than significant***.

Impact TRA-4: Consistency with Adopted Plans, Ordinances and Policies Regarding Pedestrian Facilities. With implementation of mitigation, the Project would not conflict with an applicable plan, ordinance, or policy addressing pedestrian facilities. (Less than Significant with Mitigation)

Construction

Project construction activities could result in the temporary closure of sidewalks and crosswalks. This would conflict with General Plan policies that encourage development of a multimodal transportation system and 2019 Pedestrian Master Plan Policy 2.C.4, which states that pedestrian lanes shall be

maintained next to construction zones whenever feasible. Therefore, Project construction could conflict with an applicable plan, ordinance, or policy addressing pedestrian facilities, resulting in a ***significant*** impact.

Any changes to existing pedestrian facilities would require prior approval or adequate countermeasures approved by the Public Works Department. Mitigation Measure TRA-1.1, *Construction Management Plan*, would include provisions to maintain pedestrian connections within the Project vicinity. Impacts would be ***less than significant with mitigation***.

Operation

Portions of Patrick Henry Drive and Old Ironsides Drive currently lack sidewalks. The intersection of Patrick Henry Drive and Tasman Drive lacks ADA-compliant crosswalks. The Project would construct new sidewalks along the Project frontage where missing and improve existing sidewalks along the Project frontages on Patrick Henry Drive, Old Ironsides Drive, and Tasman Drive. Intersections adjacent to the Project would be upgraded to ensure compliance with current ADA standards. The provision of new and upgraded sidewalks along the Project perimeter is consistent with General Plan Policies 5.8.2-P9, 5.8.3-P8, 5.8.3-P9, 5.8.4-P8, and 5.8.5-P3 (see Table 3.2-2 above). Furthermore, as described earlier, the Project proposes vacating Democracy Way, an existing public street easement within the Project site, and constructing a new private street, Kylli Drive, farther south, near the middle of the Project site, that would provide a pedestrian connection between Patrick Henry Drive and Old Ironsides Drive. In addition, a network of new pedestrian paths would be provided within the Project site, including a new multi-use trail, the Santa Clara Trail, along the southern perimeter of the Project site; sidewalks adjacent to buildings; and a series of meandering pathways through the Project site, which would connect Tasman Drive and the Santa Clara Trail. The Project's internal pedestrian connections would be consistent with General Plan Policies 5.8.5-P3 and 5.9.1-P4, while the planned trail along the SFPUC ROW would be consistent with General Plan Policy 5.8.4-P6. The new roadway and pedestrian facilities adjacent to and within the Project site would be required to include lighting, per City standards.

The Project would include a central green spine that would connect with the central linear park in the neighboring Patrick Henry Drive Specific Plan area, in accordance with General Plan Policy 5.8.4-P6. Per General Plan Policy 5.8.4-P8, the Project would incorporate landscaping. Selected species would provide shade and visual interest, with minimal root damage to sidewalks, leaf litter, and fruit drop.

The City's 2019 Pedestrian Master Plan does not list specific recommendations for pedestrian improvements in the vicinity of the Project site because the site is outside existing pedestrian priority zones. However, the Project would be consistent with the placemaking and land use planning recommendations included in the plan by creating a dense mixed-use neighborhood as well as streetscapes that encourage walkable trips, thereby providing connectivity to existing pedestrian facilities. The Project also would incorporate many of the measures listed in the Pedestrian Recommendation Toolbox of the 2019 Pedestrian Master Plan, such as curb extensions, high-visibility crosswalk markings, and ADA-compliant curb ramps. Furthermore, the Project would minimize conflicts between vehicles, bicyclists, and pedestrians within the Project site by consolidating vehicular access points to parking structures along the periphery of the site and reducing the number of driveways compared to existing conditions.

The pedestrian facilities and urban design elements described above are consistent with the following policies listed in the 2019 Pedestrian Master Plan:

- *Policy 1.A.3*: Identify opportunities to reduce exposure for people walking by reducing crossing distances and enhancing pedestrian visibility.
- *Policy 1.B.1:* Inventory sidewalks, curb ramps, and pedestrian actuation buttons within Santa Clara to determine whether ramps are missing and/or failing to meet current standards.
- *Policy 2.A.2:* Where feasible and practical, consolidate driveways.
- *Policy 2.A.4:* Where feasible, shorten crossing distances using "complete streets" strategies. Specific treatments will vary at each location and therefore should be determined with engineering and planning judgment/best practices.
- *Policy 2.A.5:* Reduce conflicts between pedestrians and vehicle turning movements using "complete streets" strategies. Specific treatments will vary at each location and therefore should be determined with engineering and planning judgment/best practices.
- *Policy 2.C.3:* Continue to follow City lighting standards for roadways, sidewalks, and pedestrian crossings.

Because the Project would improve pedestrian facilities within the Project site and along Project frontages, as well as provide safer conditions for pedestrians relative to existing conditions, consistent with the General Plan and the 2019 City Pedestrian Master Plan, the Project's impact on pedestrian facilities would be ***less than significant***.

Impact TRA-5: Vehicle Miles Traveled. Consistent with State CEQA Guidelines Section 15064.3(b), the Project would qualify as transit supportive and therefore be below the applicable threshold of significance for vehicles miles traveled. (Less than Significant)

Construction

Construction activities include those activities associated with site preparation and building construction. Major components of site preparation would involve removing the parking lots and buildings, excavating and grading the site, and constructing necessary infrastructure. Building construction would involve assembly of the buildings and parking structures.

Construction activities are expected to commence in early 2025 and be completed by summer of 2034. The sequence of construction would be determined in response to market demands, but for purposes of this analysis, construction is assumed to occur by area, as shown in Table 2-7 in Chapter 2, *Project Description*. Construction in different areas could overlap for several years. Staging areas for construction equipment would be provided onsite.

The estimate of the total number of trips made by haul trucks during the construction period was based on the quantity of export material (217,000 cubic yards [cy] in Area A, 129,000 cy in Area B, 152,000 cy in Area C, and 186,000 cy in Area D), assuming an average of 10 cy per truck. It is estimated that demolition and construction activities would generate approximately 68,400 haul trips, consisting of 21,700 trips from Area A, 12,900 trips from Area B, 15,200 trips from Area C, and 18,600 trips from Area D. Based on the estimated length of the construction period, and assuming 30 subcontractors with two hauls each per day, the Project would generate an average of 30 to 60 daily haul trips. However, State CEQA Guidelines Section 15064.3(a) notes that, for purposes of evaluating transportation impacts, VMT refers to automobile travel, which, according to State guidance, includes on-road passenger vehicles—specifically,

cars and light-duty trucks.[11] Thus, construction traffic associated with hauling demolition debris would not affect VMT.

The number of construction workers per day would vary, depending on the area and the specific construction activities occurring at any one point in time. The Project Sponsor estimates that, on average, there would be approximately 400 workers onsite each day. Construction workers are expected to park onsite. To reduce traffic impacts associated with construction workers, carpools would be encouraged in the Instructions to Bidders, which may include contractor incentives. Furthermore, the Project's proximity to a variety of transit services, including light rail, commuter rail, and numerous bus routes, along with existing multimodal infrastructure such as Calabazas Creek Trail and the Tasman Avenue bike lanes, would provide construction workers with non-auto options. The number of construction workers onsite would be about 2 percent of the total number of projected residents and employees upon build-out of the Project. Thus, the transportation impact created by construction workers would be substantially less than the impact during operation of the Project. Construction traffic associated with trips to and from the site made by construction workers would have a ***less-than-significant*** impact on VMT.

Operation

The City recently adopted a VMT transportation analysis policy that constitutes City transportation policy for environmental review[12] to align with State law (State CEQA Guidelines Section 15064.3) and define City transportation analysis requirements for CEQA review purposes. The policy sets forth screening criteria for certain types of developments that are presumed to have a less-than-significant impact on VMT because of their characteristics, such as infill developments, small projects, and/or transit-supportive projects near major transit corridors. The Project qualifies as a transit-supportive project because it meets the criteria established by the City related to proximity to transit, density, multimodal transportation networks, transit-oriented design elements, parking, and affordable housing, as discussed below.

Proximity to Transit. Transit-supportive projects must be located within 0.5 mile of an existing "major transit stop"[13] or an existing transit stop along a "high-quality transit corridor,"[14] as defined by Public Resources Code (PRC) Sections 21064.3 and 21155. The Project site is within 0.5 mile of the Old Ironsides light rail transit station and the Reamwood light rail transit station, both of which meet the definition of a major transit stop. In addition, VTA provides frequent bus service via Route 57, which runs along Great America Parkway and Tasman Drive. Route 57 buses operate with 15-minute headways during weekday AM and PM peak commute periods, which meets the definition of a high-quality transit corridor. The Project site is within 0.5 mile of the nearest Route 57 bus stops on Tasman Drive and Old Ironsides Drive as well as Great America Parkway and Old Glory Lane.

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[11] California Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA.* December, page 4.

[12] City of Santa Clara. 2020. *Resolution No. 20-8861, A Resolution of the City of Santa Clara, California, to Amend Resolution 5713 to Adopt a Transportation Analysis Policy to Comply with the California Environmental Quality Act Pursuant to State Senate Bill 743 (2013) and CEQA Guidelines Section 15064.3.* Adopted: June 23, 2020.

[13] "Major transit stop" means a site containing any of the following: (a) an existing rail or bus rapid transit station, (b) 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, or (c) a major transit stop included in Plan Bay Area 2040 (PRC Sections 21064.3 and 21155[b]).

[14] "High-quality transit corridor" means a corridor with fixed-route bus service and service intervals no longer than 15 minutes during peak commute hours (PRC Section21155[b]).

Density. For office/research-and-development projects, transit-supportive projects must have a minimum floor area ratio (FAR) of 0.75. Similarly, residential projects must have a minimum density of 35 dwelling units per acre (du/ac). The proposed residential density within Area D is approximately 132 du/ac.[15] The office/lab development proposed within Areas A, B and C would have an FAR of approximately 1.97.[16] Thus, development densities and intensities proposed within the Project site would meet the minimum requirements needed to be considered transit supportive.

Multimodal Transportation Networks. City policy requires that transit-supportive projects promote multimodal transportation networks. The Project would provide balanced internal multimodal circulation as well as convenient access to nearby destinations and transit stations. In addition, the Project would include the following elements to support safe, active, and sustainable travel options for site residents, employees, and visitors:

- Community green and open spaces with clear, accessible pathways through the site interior to promote walking and human-powered transportation;
- Continuous sidewalks around the perimeter that support access to existing public transit stops on Tasman Drive and Great America Parkway;
- Multi-use trail system along the southern edge of the site;
- Protected or buffered bicycle lanes around the site perimeter;
- An internal low-speed bicycle network within the Project site that connects to a larger regional network;
- Convenient and safe bike parking options for both long-term and short-term users;
- Self-service bicycle repair amenities that encourage healthy mobility options;
- New shuttle connections to Caltrain and Bay Area Rapid Transit with onsite shuttle stops on internal private roadways;
- A deep-profile vehicular drop-off area within the Project frontage on Tasman Drive separated by a pedestrian/green buffer to minimize conflicts with cyclists;
- Dedicated curb space for ridesharing, ride-hail, and taxi service passenger loading;
- TDM strategies to minimize VMT and comply with (or exceed) the City's CAP goal for VMT reduction;
- An efficient shared parking model that reduces the Project area devoted to vehicle parking, thereby promoting a compact, walkable environment that reduces traffic congestion, VMT, and housing and transportation costs.
- Vehicle parking spaces provided within structures above and below grade, with architectural treatments around perimeter edges to lessen the aesthetic impact and maintain pedestrian engagement at ground level; and
- Vehicular access points to parking structures along the periphery of the site to minimize conflicts between vehicles, cyclists, and pedestrians within the Project site.

Transit-Oriented Design Elements. Transit-supportive projects are required to include transit-oriented design elements. The Project proposes design elements that would ensure a pedestrian-oriented, mixed-

[15] Calculated at 1,800 dwelling units over the total land area of Area D (15.7 acres). No residential uses are proposed in Areas A, B, or C.

[16] Calculated at 3 million square feet of office/lab space over the total land area, excluding Area D (34.9 acres). No office/lab space is proposed in Area D.

use urban neighborhood that would be walkable and have convenient connections to transit. The following design elements would ensure that the Project would be a transit-oriented development:

- A complete multi-use neighborhood with a large network of diverse, accessible, and interconnected park, trail, and open spaces to promote interactive activities;
- Pedestrian-oriented neighborhood uses on the ground floor (e.g. neighborhood-supporting retail/restaurant space, community uses, office/residential lobbies, amenities, day-care facility);
- Vibrant programming anchored toward the north of the site, closest to the Tasman light rail corridor, that promotes use of public transportation;
- Human-centric design approach with cycling and pedestrian infrastructure;
- Pedestrian-scaled architectural detailing and façade treatments; and
- A fine-grained, connected network of pedestrian pathways that support clear wayfinding and efficient connections.

Parking. Because the Project is within 0.5 mile of a transit stop, according to SB 2097, a minimum parking requirement is not applicable. In addition, transit-supportive projects may not include more parking for use by residents, customers, or employees than required by City Code. The Project would provide up to 9,400 parking stalls. The proposed parking supply reflects the efficiency created through the use of shared parking, which allows multiple uses that experience peak parking demand at different times of the day to share parking. Furthermore, unbundled parking would be provided for market-rate residential dwelling units to reduce auto ownership and parking demand by residents. As shown in Table 3.2-3, the proposed parking ratios, by use, would be equal to or less than the standard code ratios in effect in other areas. Therefore, the Project would not include excess parking and would qualify as transit supportive under this metric.

Table 3.2-3. Parking Ratio by Use

Use	Project Ratio	Standard Ratio
Office/Lab	0.7 stall/300 sf	1.0 stall/300 sf
Residential	1.0 stall/du	1.55 stalls/du
Retail	0.9 stall/200 sf	1.0 stall/200 sf
Day-Care Facility	1.0 stall/300 sf	1.0 stall/classroom
Community Amenity	1.0 stall/1,500 sf	1.0 stall/223 sf[a]
Parks/Open Space	2.3 stalls/acre	5.08 stalls/acre[a]

Source: City of Santa Clara City Code Section 18.74.020 for office, retail, restaurant, and day-care facility and Section 18.22.140 for multi-family residential, assuming the following unit mix (360 studio units at one stall/unit, 900 one-bedroom units at 1.5 stalls/unit, and 540 two-bedroom units at two stalls/unit).

a. Community and park uses are not specifically listed in the City's parking regulations. The zoning administrator would determine parking requirements for these uses. The standard ratios listed are the 85th percentile rate obtained from ITE's *Parking Generation*, fifth edition, for library (Land Use 590) and city park (Land Use 411).

sf = square feet; du = dwelling unit

Affordable Housing. Affordable housing has been shown to generate less VMT per capita than market-rate housing. City VMT policy states that transit-supportive projects must not replace affordable residential units with fewer affordable units. In addition, replacement units are required to maintain the same level of affordability. Currently, the Project site does not contain any residential dwelling units. Under the Project, 15 percent of the new residential dwelling units would be affordable. The Project Sponsor is preparing an Affordable Housing Plan for the Project site, which will outline inclusionary

requirements for the Project. Therefore, the Project would add new affordable dwelling units and not result in a loss of affordable units.

Because the Project qualifies as a transit-supportive project (per State guidance[17] and City VMT policy), the Project would have a ***less-than-significant*** impact on VMT.

Impact TRA-6: Hazards Due to Design Features or Incompatible Uses. With implementation of mitigation, the Project would not substantially increase hazards due to a geometric design feature or incompatible uses. (Less than Significant with Mitigation)

Construction

Construction activities could temporarily infringe on the existing street ROW adjacent to the Project site, creating substandard design elements such as narrow lane widths or inadequate sight distances that pose a hazard to users. Therefore, Project construction could substantially increase hazards due to a geometric design feature, resulting in a ***significant*** impact.

As part of Mitigation Measure TRA-1.1, *Construction Management Plan*, the City will review temporary traffic control plans to ensure that travel lane closures, on-street parking, shoulders, bike lanes, bus stops, and sidewalks during construction comply with the *California Temporary Traffic Control Handbook*[18] and the latest *California Manual on Uniform Traffic Control Devices.*[19] Adherence to the design standards in these publications would ensure that the Project would not result in hazards due to geometric design features or incompatible uses. The impact would be ***less than significant with mitigation***.

Operation

Conflicts between modes would be reduced through better accommodations for the different transportation modes, including elements such as new and/or improved sidewalks, bicycle lanes, and bus stops. The Project proposes an improved internal circulation network that would be designed to accommodate vehicular traffic and be balanced with other modes (e.g., bicycling, walking, micro-mobility, transit). In particular, the Project would include a coordinated network of streets, bicycle and pedestrian pathways, and greenways to ensure safe, comfortable mobility options.

The following Project elements would promote safety by reducing potential conflicts between vehicles, bicyclists, pedestrians, and buses through designs that would accommodate all modes:

- On-street parking on Kylli Drive East and West that would serve as a buffer between vehicle travel lanes and Class IV protected bicycle lanes.
- Class II buffered bicycle lanes on Tasman Drive and Class IV protected bicycle lanes on Patrick Henry Drive and Old Ironsides Drive, with bollards and/or buffer space for bicycles and colored pavement in intersections, transition zones, and other areas with possible conflicts.
- A deep-profile drop-off area within the Project frontage on Tasman Drive, separated by a pedestrian/green buffer to minimize conflicts with cyclists.

[17] California Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA.* December, pages 13 and 14.

[18] California Inter-Utility Coordinating Committee. 2018. *California Temporary Traffic Control Handbook.* Seventh edition. May.

[19] California Department of Transportation. 2023. *2014 California Manual on Uniform Traffic Control Devices, Revision 7*. March 10.

- Dedicated curb space for ridesharing, ride-hail, and taxi service passenger loading;
- Consolidated vehicular access points to parking structures along the periphery of the site to reduce the number of driveways compared with existing conditions and minimize conflicts between vehicles, cyclists, and pedestrians within the Project site.
- Widened sidewalks along the Project perimeter, with planters to provide shade and separation between vehicles and pedestrians.
- Sidewalks along Kylli Drive East and West, with enough space for street life and a green buffer to provide shade and separation from the protected bicycle lane.
- Onsite shuttle stops on internal private roadways to improve pedestrian safety and travel efficiency.
- Urban street trees, selected to thrive in tree pit locations with minimum root damage to sidewalks and minimal leaf litter or fruit drop to minimize tripping hazards for pedestrians.

Final designs for intersections, driveways, and multimodal facilities would be subject to City review to ensure compliance with PD zoning and all required City standards, thereby ensuring the adequacy of circulation patterns and safety standards. This would reduce potential conflicts between vehicles, bicyclists, pedestrians, and buses and remove potential hazards due to design features (e.g., inadequate sightlines or distances) or incompatible uses during each phase of construction or upon completion of the Project. Therefore, the Project would not result in hazards due to design features or incompatible uses, and the impact would be ***less than significant***.

Impact TRA-7: Emergency Access. With implementation of mitigation, the Project would not result in inadequate emergency access. (Less than Significant with Mitigation)

Construction

Construction activities could result in temporary closures along travel lanes, bike lanes, or roadway shoulders. Such closures may interfere with emergency access to the Project site or adjacent properties. Therefore, Project construction could result in inadequate emergency access, resulting in a ***significant*** impact.

As part of Mitigation Measure TRA-1.1, *Construction Management Plan*, a construction management plan would include provisions to maintain adequate emergency access during each phase of construction. Therefore, the Project would not result in inadequate emergency access, and the impact would be ***less than significant with mitigation***.

Operation

Existing access to the Project site for emergency vehicles is via connections to Great America Parkway from Old Glory Lane or via connections to Tasman Drive from Patrick Henry Drive and Old Ironsides Drive. These connections would remain. The Project would allow emergency access to dedicated fire service access elevators within all buildings from the exterior (i.e., Patrick Henry Drive, Old Ironsides Drive, Tasman Drive), from the new Kylli Drive West and East, and from emergency vehicle access (EVA) aisles within the ground level of the parking podiums. EVA roadways would be 26 feet wide to facilitate circulation; entries would be 20 feet wide. Furthermore, EVA roadways would accommodate a minimum truck turning radius of 30 feet and be limited to a maximum slope of 10 percent. EVA paths along open spaces (if any) would have a 20-foot-wide (minimum) clear path of travel. The illustrative EVA and circulation strategy, Figure 05-9_04, in the Mission Point PD Rezoning Application dated April 21, 2023,

shows no dead-end aisles on EVA roadways; therefore, emergency vehicles would be able to enter the site and circulate within the podium at ground level, then exit the site without turning around. Santa Clara Trail, a 30-foot-wide multi-use trail along the southern edge of the Project site, may be used for a 20-foot-wide shared vehicular EVA access route. The basement-level parking, which would allow automobile traffic to circulate between areas, would not provide the minimum circulation height clearance for emergency vehicles. Although emergency vehicles could travel between Areas B and C without leaving the Project site by using the ground-level access points on Kylli Drive East, travel between other areas within the Project site would require emergency vehicles to use the public streets along the Project exterior or the EVA access point along the Santa Clara Trail. Final Project designs for EVA roadways would be subject to City Fire Department review to ensure the adequacy of the circulation patterns and compliance with City EVA standards, such as minimum heights, as well as clearance along circulation routes. City review of future driveway and drive aisle designs would ensure compliance with City EVA requirements upon completion of the Project. Therefore, the Project would not result in inadequate emergency access, and the impact would be ***less than significant***.

Cumulative Impacts

This section evaluates potential cumulative impacts related to the transportation and circulation network in the study area. This cumulative analysis examines the effects of the Project in combination with other current projects and probable future projects.

Impact C-TRA-1: Cumulative Adopted Plans, Ordinances, and Policies Addressing the Circulation System. With implementation of mitigation, the Project, in combination with other foreseeable development in the vicinity, would not conflict with an applicable plan, ordinance, or policy addressing the circulation system, including roadway, transit, bicycle, and pedestrian facilities. (Less than Significant with Mitigation)

Construction and Operation

The Project and other future developments that may be constructed within the Patrick Henry Specific Plan Area and the Freedom Circle Focus Area, as well as other approved and proposed developments in the vicinity of the Project site, such as the approved office development at 3001 Tasman Drive, the approved retail/restaurant/entertainment development at 1 Great America Parkway, the proposed office development at 2901 Tasman Drive, and the proposed hotel at 4949 Great America Parkway, would be required to comply with existing regulations, including the General Plan policies and zoning regulations that have been enacted to minimize impacts related to transportation and circulation. The City, throughout the 2035 build-out horizon, would implement General Plan programs and update the Capital Improvement Program biennially to reflect City and community priorities for physical projects related to transportation for all travel modes. Furthermore, implementation of zoning regulations would ensure adequate facilities and access to transportation. Future development also would be required to comply with the City's Bicycle and Pedestrian Master Plans. Construction management plans, similar to the construction management plan required under Mitigation Measure TRA-1.1 for the Project, would be required for all new developments, subject to review and approval by the Public Works Department, to ensure that all elements of the transportation network meet City goals and standards during construction. For these reasons, the cumulative impact of the Project in combination with cumulative projects would be ***less than significant with mitigation*** with respect to conflicting with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities.

Impact C-TRA-2 Cumulative Vehicle Miles Traveled. Consistent with State CEQA Guidelines Section 15064.3(b), the Project, in combination with other foreseeable development in the vicinity, would not exceed an applicable VMT threshold of significance. (Less than Significant)

Construction

As stated above, VMT refers to automobile travel, which includes light-duty trucks. Thus, construction traffic associated with hauling demolition debris from the Project site or the sites of the cumulative developments in the vicinity would not affect VMT.

The presence of alternative transportation options, including light rail transit, high-quality bus service, and multi-use trails for pedestrians and bicyclists in the vicinity of the Project site, would allow construction workers at the Project site and at nearby developments to use sustainable transportation modes that would reduce VMT. Furthermore, the number of construction workers on each job site would be substantially less than the total projected number of residents and employees upon completion of each development; therefore, the transportation impact created by construction workers would be substantially less than the impact during operation of the Project. Trips made by construction workers would have a ***less-than-significant*** cumulative impact on VMT.

Operation

As described above, because the Project qualifies as a transit-supportive project (per State guidance[20] and City VMT policy), the Project would have a less-than-significant impact on VMT. Likewise, the Patrick Henry Specific Plan Area and the Freedom Circle Focus Area were also deemed transit-supportive projects that would have a less-than-significant impact on VMT. The CEQA documents prepared for the approved developments at 3001 Tasman Drive and 1 Great America Parkway were certified prior to the SB 743 legislation and, thus, were subject to different transportation thresholds and not based on VMT. Currently pending development proposals in Santa Clara, including the proposed office development at 2901 Tasman Drive and the proposed hotel at 4949 Great America Parkway, are required to comply with City transportation analysis policy, which requires development projects to use VMT as the measure for transportation impact evaluation under CEQA. A project that falls below an efficiency-based threshold that is aligned with long-term environmental goals and relevant plans would have no cumulative impact distinct from an overall project impact. Prior to SB 743, CEQA transportation metrics were based on vehicle delay; the trips generated by individual developments could combine to cause a cumulative impact that would exceed significance thresholds, even though the effect of individual projects may be less than significant. However, efficiency metrics such as VMT per resident and VMT per employee ensure that, as long as each cumulative development is below the appropriate VMT threshold, the combined VMT per resident and VMT per employee would also be below the significance threshold. Thus, a less-than-significant impact finding for Project-level VMT implies a ***less-than-significant*** cumulative impact with respect to VMT.[21]

Impact C-TRA-3: Cumulative Hazards Due to Design Features or Incompatible Uses. With implementation of mitigation, the Project, in combination with other foreseeable development in

[20] California Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA.* December, pages 13-14.

[21] California Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December. page 6.

the vicinity, would not substantially increase hazards due to a geometric design feature or incompatible uses. (Less than Significant with Mitigation)

Construction and Operation

Neither the approved office development at 3001 Tasman Drive nor the proposed office development at 2901 Tasman Drive would alter existing site driveways on Tasman Drive or introduce new uses adjacent to the Project site. Thus, the Project combined with these future developments would not substantially increase hazards due to a geometric design feature or incompatible uses. Overall, cumulative land use development, including future developments within the Patrick Henry Specific Plan Area and the Project site, would promote accessibility for people traveling to and through northern Santa Clara by conforming to General Plan and Specific Plan policies, zoning regulations, and City standards and adhering to planning principles that emphasize providing convenient connections and safe routes for people bicycling, walking, driving, or taking transit. In addition, plans would be reviewed by the City's Public Works Department to ensure that projects are constructed according to City specifications. Construction management plans, similar to the construction management plan required under Mitigation Measure TRA-1.1 for the Project, would be required for all new developments, subject to review and approval by the Public Works Department, to ensure that temporary design features used during construction would not increase hazards, both individually and collectively. Therefore, the Project in combination with cumulative projects would have a ***less-than-significant with mitigation*** cumulative impact with respect to hazards or incompatible uses.

Impact C-TRA-4: Cumulative Emergency Access. With implementation of mitigation, the Project, in combination with other foreseeable development in the vicinity, would not result in inadequate emergency access. (Less than Significant with Mitigation)

Construction and Operation

Neither the approved office development at 3001 Tasman Drive nor the proposed office development at 2901 Tasman Drive would modify vehicle travel lanes on Tasman Drive used by emergency vehicles. Future development within the Patrick Henry Specific Plan Area, as part of the City's project approval process, would be required to comply with existing regulations, including the General Plan and Specific Plan policies, zoning regulations, and City standards that have been implemented to minimize impacts related to emergency access. The City, throughout the 2035 build-out horizon, would implement General Plan programs that require City coordination with emergency service providers to ensure continued emergency service operations and services. Designs for EVA roadways would be subject to City review. This would ensure the adequacy of circulation patterns and compliance with City EVA standards related to minimum heights, clearance along circulation routes, drive aisle width, vertical clearance, turning radius, and slope. Construction management plans, similar to the construction management plan required under Mitigation Measure TRA-1.1 for the Project, would be required for all new developments, subject to review and approval by the Public Works Department, to ensure that temporary closures of travel lanes, bike lanes, or roadway shoulders that may be planned during concurrent construction projects would not result in inadequate emergency access. For these reasons, the Project in combination with cumulative projects would have a ***less-than-significant with mitigation*** cumulative impact with respect to emergency access.

3.3 Air Quality

This section describes the environmental and regulatory setting for air quality within and around the Mission Point Project (Project) site and evaluates the potential for impacts on air quality that would result from development of the Project. This section has been prepared using methods and assumptions recommended in the air quality impact assessment guidelines of the Bay Area Air Quality Management District (BAAQMD).[1,2] The section describes existing air quality in the region, the Project's contribution to localized concentrations of carbon monoxide (CO), impacts from vehicular emissions that have regional effects, and the exposure of sensitive receptors to Project-generated toxic air contaminants (TACs). This section is based on modeling completed for the Project (Appendix 3.3-1).

No comments regarding air quality were received in response to the Notice of Preparation (NOP) (Appendix 1).

Existing Conditions

Regulatory Setting

The federal Clean Air Act (CAA) and its subsequent amendments form the basis for the nation's air pollution control effort. The U.S. Environmental Protection Agency (EPA) is responsible for implementing most aspects of the CAA. The National Ambient Air Quality Standards (NAAQS) for criteria pollutants are a key element of the CAA, which delegates enforcement of the NAAQS to the states. The CAA requires that a State Implementation Plan (SIP) or an air quality control plan be prepared for areas with air quality that violate the NAAQS. The SIP sets forth the strategies and pollution control measures that states will use to attain the NAAQS. The CAA requires attainment plans to demonstrate a 5 percent reduction per year in nonattainment air pollutants or their precursors, averaged every consecutive 3-year period, unless an approved alternative measure of progress is developed. Air quality attainment plans outline emissions limits and control measures for achieving and maintaining the standards by the earliest practical date.

In California, the California Air Resources Board (CARB) is responsible for enforcing air pollution regulations and ensuring that the NAAQS and California Ambient Air Quality Standards (CAAQS) are met. CARB, in turn, delegates regulatory authority for stationary sources and other air quality management responsibilities to local air agencies. BAAQMD is the local air agency for the Project area.

The sections that follow provide more detailed information on federal, State of California (State), and local air quality regulations that apply to the Project.

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1 Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act, Air Quality Guidelines*. May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: February 2, 2023.

2 BAAQMD published the most recent version of its CEQA Guidelines in April 2023 (2022 BAAQMD CEQA Guidelines). However, at the time of the NOP for the Project, the 2017 BAAQMD CEQA Guidelines were in effect. Preparation of the environmental document for the Project was already under way when the 2022 BAAQMD CEQA Guidelines were published. As a result, this analysis was prepared consistent with the 2017 BAAQMD CEQA Guidelines. Though there are differences between the 2017 and 2022 BAAQMD CEQA Guidelines, the two versions recommend similar methodological and threshold approaches, and the analysis included herein nonetheless adequately evaluates and discloses the Project's air quality impacts.

Federal

Clean Air Act and National Ambient Air Quality Standards

The federal CAA was enacted in 1963 and amended numerous times in subsequent years (1965, 1967, 1970, 1977, and 1990). The federal CAA establishes federal air quality standards, known as the NAAQS, and specifies future dates for achieving compliance. The federal CAA also requires each state to submit and implement its SIP for local areas that fail to meet the standards. The plan must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the federal CAA identify specific emission reduction goals for areas that fail to meet the NAAQS. These amendments require both a demonstration of reasonable progress toward attainment and incorporation of additional sanctions for failure to attain or meet interim milestones. Table 3.3-1 shows the NAAQS that are currently in effect for each criteria pollutant. The CAAQS (discussed below) are also provided for reference.

Non-Road Diesel Rule

The EPA has established a series of increasingly strict emissions standards for new off-road diesel equipment, on-road diesel trucks, and locomotives. New construction equipment used for the Project, including heavy-duty trucks and off-road construction equipment, would be required to comply with the emissions standards.

Corporate Average Fuel Economy Standards

The National Highway Traffic Safety Administration's (NHTSA's) Corporate Average Fuel Economy standards require substantial improvements in fuel economy and reductions in GHG emissions generated by passenger cars and light-duty trucks sold in the United States. On August 2, 2018, EPA and NHTSA proposed amendments to the current fuel efficiency standards for passenger cars and light-duty trucks and new standards for model years 2021 through 2026. Under the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, current 2020 standards would be maintained through 2026.

On September 19, 2019, EPA and NHTSA issued a final action on the One National Program Rule, which is considered Part One of the SAFE Vehicles Rule and a precursor to the proposed fuel efficiency standards, withdrawing California's CAA preemption waiver to set State-specific standards.[3] The EPA reinstated California's authority under the CAA to implement its own GHG emission standards and zero-emission vehicles (ZEV) sales mandate on March 9, 2022.[4] On December 19, 2021, NHTSA finalized its vehicle efficiency standards rule to reach a projected industry-wide target of 40 miles per gallon by 2026, an approximately 25 percent increase over the prior SAFE rule.[5]

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[3] The One National Program Rule enables EPA and NHTSA to provide nationwide uniform fuel economy and GHG vehicle standards by 1) clarifying that federal law preempts State and local tailpipe GHG standards, 2) affirming NHTSA's statutory authority to set nationally applicable fuel economy standards, and 3) withdrawing California's CAA preemption waiver to set State-specific standards.

[4] California, 22 other states, the District of Columbia, and two cities filed suit against Part One of the SAFE Vehicles Rule on September 20, 2019 (*California et al. v. United States Department of Transportation et al.,* 1:19-cv-02826, U.S. District Court for the District of Columbia). On December 12, 2021, NHTSA repealed the SAFE Vehicles Rule, Part One.

[5] EPA and NTHSA published final rules to amend and establish national carbon dioxide (CO_2) and fuel economy standards on April 30, 2020 (Part Two of the SAFE Vehicles Rule) (85 *Federal Register* 24174). The revised rule changes the national fuel economy standards for light-duty vehicles from 46.7 to 40.4 miles per gallon in future

Table 3.3-1. Federal and State Ambient Air Quality Standards

Criteria Pollutant	Average Time	California Standards	National Standards[a]	
			Primary	Secondary
Ozone	1 hour	0.09 ppm	None[b]	None[b]
	8 hours	0.070 ppm	0.070 ppm	0.070 ppm
Particulate Matter (PM_{10})	24 hours	50 μg/m³	150 μg/m³	150 μg/m³
	Annual mean	20 μg/m³	None	None
Fine Particulate Matter ($PM_{2.5}$)	24 hours	None	35 μg/m³	35 μg/m³
	Annual mean	12 μg/m³	12.0 μg/m³	15.0 μg/m³
Carbon Monoxide	8 hours	9.0 ppm	9 ppm	None
	1 hour	20 ppm	35 ppm	None
Nitrogen Dioxide	Annual mean	0.030 ppm	0.053 ppm	0.053 ppm
	1 hour	0.18 ppm	0.100 ppm	None
Sulfur Dioxide[c]	Annual mean	None	0.030 ppm	None
	24 hours	0.04 ppm	0.14 ppm	None
	3 hours	None	None	0.5 ppm
	1 hour	0.25 ppm	0.075 ppm	None
Lead	30-day average	1.5 μg/m³	None	None
	Calendar quarter	None	1.5 μg/m³	1.5 μg/m³
	3-month average	None	0.15 μg/m³	0.15 μg/m³
Sulfates	24 hours	25 μg/m³	None	None
Visibility-Reducing Particles	8 hours	—[d]	None	None
Hydrogen Sulfide	1 hour	0.03 ppm	None	None
Vinyl Chloride	24 hours	0.01 ppm	None	None

Source: California Air Resources Board. 2016. *Ambient Air Quality Standards*. Available: https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf. Accessed: February 2, 2023.

Notes:

PM_{10} = particulate matter with an aerodynamic diameter of 10 microns or less

$PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 microns or less

μg/m³ = micrograms per cubic meter

ppm = parts per million

a. National standards are divided into primary and secondary standards. Primary standards are intended to protect public health, whereas secondary standards are intended to protect public welfare and the environment.

b. The federal 1-hour standard of 12 parts per hundred million was in effect from 1979 through June 15, 2005. The revoked standard is referenced because it was employed for such a long period and a benchmark for SIPs.

c. The annual and 24-hour NAAQS for sulfur dioxide apply for only 1 year after designation of the new 1-hour standard in areas that were previously nonattainment areas for the 24-hour and annual NAAQS.

d. The CAAQS for visibility-reducing particles is defined by an extinction coefficient of 0.23 per kilometer (visibility of 10 miles or more due to particles when relative humidity is less than 70 percent).

years. California, 22 other states, the District of Columbia filed a petition for review of the final rule on May 27, 2020.

State

California Clean Air Act and California Ambient Air Quality Standards

In 1988, the State Legislature adopted the California CAA, which established a statewide air pollution control program. The California CAA requires all air districts in the state to endeavor to meet the CAAQS by the earliest practical date. Unlike the federal CAA, the California CAA does not set precise attainment deadlines. Instead, the California CAA establishes increasingly stringent requirements for areas that require more time to achieve the standards. The CAAQS are generally more stringent than the NAAQS and incorporate additional standards for sulfates, hydrogen sulfide, visibility-reducing particles, and vinyl chloride. The NAAQS and CAAQS are listed together in Table 3.3-1.

CARB and local air districts bear responsibility for achieving California's air quality standards. The standards are to be achieved through district-level air quality management plans, which are incorporated into the SIP. In California, EPA has delegated authority to prepare SIPs to CARB, which, in turn, has delegated that authority to individual air districts. CARB has traditionally established state air quality standards, maintained oversight authority for air quality planning, developed programs for reducing emissions from motor vehicles, developed air emissions inventories, collected air quality and meteorological data, and approved SIPs.

The California CAA substantially increases the authority and responsibilities of air districts. The California CAA designates air districts as lead air quality planning agencies, requires air districts to prepare air quality plans, and grants air districts authority to implement transportation control measures. The California CAA also emphasizes control of "indirect and area-wide sources" of air pollutant emissions. The California CAA gives local air pollution control districts explicit authority to regulate indirect sources and establish traffic control measures. BAAQMD is the primary agency responsible for ensuring that the NAAQS and CAAQS are attained and maintained in the Bay Area. BAAQMD's thresholds of significance are generally designed to support attainment and maintenance of the NAAQS and CAAQS.

Statewide Truck and Bus Regulation

CARB adopted the Truck and Bus Regulation in 2008 to focus its efforts on reducing emissions of diesel particulate matter (DPM), nitrogen oxide (NO_X), and other criteria pollutants from diesel-fueled vehicles. This regulation applies to any diesel-fueled vehicle as well as any dual-fuel or alternative-fuel diesel vehicle that travels on public highways, yard trucks with on-road engines, yard trucks with off-road engines used for agricultural operations, school buses, and vehicles with a gross vehicle weight rating (GVWR) of more than 14,000 pounds. The purpose of the regulation is to require trucks and buses registered in the state to have 2010 or newer engines by 2023. Compliance schedules have been established for lighter vehicles (GVWR of 14,000–26,000 pounds) and heavier vehicles (GVWR of more than 26,001 pounds).[6] As of January 1, 2020, only vehicles that met the requirements of the Trucks and Bus Regulation were allowed to register with the California Department of Motor Vehicles.

Carl Moyer Program

The Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) is a voluntary program that offers grants to owners of heavy-duty vehicles and equipment. The program is a partnership

[6] California Air Resources Board. 2020. *CARB Truck Rule Compliance Required for DMV Registration*. July. Available: https://ww3.arb.ca.gov/msprog/truckstop/pdfs/sb1_faqeng.pdf. Accessed: February 2, 2023.

between CARB and the local air districts throughout the state to reduce air pollution emissions from heavy-duty engines. Locally, the air districts administer the Carl Moyer Program.

Toxic Air Contaminant Regulation

California regulates TACs primarily through the Toxic Air Contaminant Identification and Control Act (Tanner Act) and the Air Toxics "Hot Spots" Information and Assessment Act of 1987 ("Hot Spots" Act). In the early 1980s, CARB established a statewide comprehensive air toxics program to reduce exposure to air toxics. The Tanner Act created California's program to reduce exposure to air toxics. The "Hot Spots" Act supplements the Tanner Act by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks.

CARB identified DPM as a TAC and, in September 2000, approved a comprehensive Diesel Risk Reduction Plan to reduce emissions from both new and existing diesel-fueled engines and vehicles.[7] CARB plans to continue its efforts to reduce DPM emissions and estimates that by 2035 DPM emissions will be less than half of what they were in 2010.[8]

Local

Bay Area Air Quality Management District

At the local level, the responsibilities of air quality districts include overseeing stationary-source emissions, approving permits, maintaining emissions inventories, maintaining air quality stations, overseeing agricultural burning permits, and reviewing air quality–related sections of environmental documents required by the California Environmental Quality Act (CEQA). The air quality districts are also responsible for establishing and enforcing local air quality rules and regulations that address the requirements of federal and State air quality laws and for ensuring that NAAQS and CAAQS are met.

The Project falls under the jurisdiction of BAAQMD, which has local air quality jurisdiction over projects in the San Francisco Bay Area Air Basin (SFBAAB), including Santa Clara County. BAAQMD developed advisory emissions thresholds to assist CEQA lead agencies in determining the level of significance of a project's emissions, which are outlined in its CEQA Air Quality Guidelines (BAAQMD CEQA Guidelines).[9,10]

BAAQMD has also adopted air quality plans to improve air quality, protect public health, and protect the climate, including the 2017 Clean Air Plan: Spare the Air, Cool the Climate (2017 Clean Air Plan). As described in the above discussion regarding federal air pollution regulations, the CAA requires a SIP or an air quality control plan to be prepared for areas with air quality that violates the NAAQS. BAAQMD's 2017

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7 California Air Resources Board. 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engine and Vehicles.* October. Available: https://ww3.arb.ca.gov/diesel/documents/rrpfinal.pdf. Accessed: February 2, 2023.

8 California Air Resources Board. *Overview: Diesel Exhaust and Health*. Available: https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. Accessed: February 6, 2023.

9 Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act Air Quality Guidelines.* May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: February 2, 2023.

10 BAAQMD published the most recent version of its CEQA Guidelines in April 2023. However, at the time of the NOP for the Project, the 2017 BAAQMD CEQA Guidelines were in effect. Preparation of the environmental document for the Project was already under way when the 2022 BAAQMD CEQA Guidelines were published. As a result, this analysis was prepared consistent with the 2017 BAAQMD CEQA Guidelines.

Clean Air Plan, adopted on April 19, 2017, is the current air quality attainment plan for the SFBAAB.[11] It defines control strategies to reduce emissions and ambient concentrations of air pollutants; safeguards public health by reducing exposure to air pollutants that pose the greatest health risk, with an emphasis on protecting the communities most heavily affected by air pollution; and reduces greenhouse gas (GHG) emissions to protect the climate. In addition, the 2017 Clean Air Plan updates the prior 2010 Bay Area ozone (O_3) plan and outlines feasible measures to reduce O_3; provides a control strategy for reducing particulate matter (PM), air toxics, and GHGs in a single integrated plan; and establishes emissions control measures that can be adopted or implemented. Specifically, the Clean Air Plan:

- Describes the BAAQMD plan for attaining all federal and State air quality standards and eliminating health risk disparities among Bay Area communities from exposure to air pollution;
- Defines a vision for transitioning the region to the post-carbon economy needed to achieve the ambitious GHG reduction targets for 2030 and 2050;
- Provides a regional climate protection strategy that will put the Bay Area on a pathway to achieving GHG reduction targets; and
- Includes a wide range of control measures to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as PM, O_3, and TACs; reduce emissions of methane and other GHGs with a high global warming potential that are potent climate pollutants in the near term; and decrease emissions of CO by reducing fossil fuel combustion.

In addition to air quality plans, BAAQMD also adopts rules and regulations to improve existing and future air quality. The Project may be subject to the following district rules:

- Regulation 2, Rule 2 (New Source Review)—This regulation contains requirements for Best Available Control Technology and emission offsets.
- Regulation 2, Rule 5 (New Source Review of Toxic Air Contaminates)—This regulation outlines guidance for evaluating TAC emissions and their potential health risks.
- Regulation 6, Rule 1 (PM)—This regulation restricts emissions of PM darker than a 1 on the Ringlemann Chart to less than 3 minutes in any 1 hour.
- Regulation 7 (Odorous Substances). This regulation establishes general odor limitations on odorous substances and specific emission limitations on certain odorous compounds.
- Regulation 8, Rule 3 (Architectural Coatings). This regulation limits the quantity of reactive organic gas (ROG) in architectural coatings.
- Regulation 9, Rule 6 (NO_X Emissions from Natural Gas–Fired Boilers and Water Heaters). This regulation limits emissions of NO_X generated by natural gas–fired boilers.
- Regulation 9, Rule 8 (Stationary Internal-Combustion Engines). This regulation limits emissions of NO_X and CO from stationary internal-combustion engines of more than 50 horsepower.
- Regulation 11, Rule 2 (Hazardous Pollutants – Asbestos Demolition, Renovation, and Manufacturing). This regulation, which incorporates EPA's asbestos National Emissions Standards for Hazardous Air Pollutants regulations, controls emissions of asbestos to the atmosphere during demolition, renovation, and transport activities.

[11] Bay Area Air Quality Management District. 2017a. *Final 2017 Clean Air Plan.* Adopted April 19. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed: February 2, 2023.

BAAQMD California Environmental Quality Act Air Quality Guidelines

The BAAQMD CEQA Guidelines were prepared to assist in the evaluation of the air quality impacts of projects and plans proposed within the Bay Area. The BAAQMD CEQA Guidelines provide recommended procedures for evaluating potential air quality impacts during the environmental review process, consistent with CEQA requirements, and include recommended thresholds of significance, mitigation measures, and background air quality information. They also include recommended assessment methodologies for air toxics and odors.

In May 2017, BAAQMD published an updated version of its CEQA Guidelines.[12] The 2017 BAAQMD CEQA Guidelines included thresholds for evaluating a project's impact on air quality. These protective thresholds are appropriate to the size, scale, and location of the Project because the Project is a land use development project within BAAQMD jurisdiction.

City of Santa Clara 2010–2035 General Plan

The City of Santa Clara 2010–2035 General Plan (General Plan)[13] includes the following goals and policies related to air quality:

- *Policy 5.8.1-P6*: Implement level-of-service standards that support increased transit ridership, biking, and walking in order to decrease vehicle miles traveled and reduce air pollution, energy consumption, and greenhouse gas emissions.

- **Goal 5.10.2-G1:** Improved air quality in Santa Clara and the region.
- **Goal 5.10.2-G2:** Reduced greenhouse gas emissions that meet State and regional goals and requirements to combat climate change.
  - *Policy 5.10.2-P1*: Support alternative transportation modes and efficient parking mechanisms to improve air quality.
  - *Policy 5.10.2-P2*: Encourage development patterns that reduce vehicle miles traveled and air pollution.
  - *Policy 5.10.2-P3*: Encourage implementation of technological advances that minimize public health hazards and reduce the generation of air pollutants.
  - *Policy 5.10.2-P5*: Promote regional air pollution prevention plans for local industry and businesses.
  - *Policy 5.10.2-P6*: Require "best management practices" for construction dust abatement.
  - *Policy 5.10.5-P35*: Establish minimum buffers between odor sources and new residential or other uses with sensitive receptors, consistent with BAAQMD guidelines, unless a project-specific study demonstrates that these risks can be reduced to acceptable levels.

[12] BAAQMD published the most recent version of its CEQA Guidelines in April 2023. However, at the time of the NOP for the Project, the 2017 BAAQMD CEQA Guidelines were in effect. Preparation of the environmental document for the Project was already under way when the 2022 BAAQMD CEQA Guidelines were published. As a result, this analysis was prepared consistent with the 2017 BAAQMD CEQA Guidelines.

[13] City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan*. Adopted November 16, 2010. Last amended December 9, 2014. Available: https://www.santaclaraca.gov/home/showpublisheddocument/56139/636619791319700000. Accessed: February 2, 2023.

Environmental Setting

This section provides a discussion of existing conditions related to air quality in the Project area. The Project site is within the SFBAAB. Ambient air quality is affected by climatological conditions, topography, and the types and amounts of pollutants emitted. The following discussion summarizes relevant characteristics of the SFBAAB, key pollutants of concern, and existing ambient pollutant concentrations. This section also describes regional and local climate conditions, existing air quality conditions, and sensitive receptors that may be affected by Project-generated emissions.

The information below is drawn from the relevant oversight agencies (i.e., BAAQMD, CARB, EPA).

Regional Climate and Meteorology

Although the primary factors that determine air quality are the locations of air pollutant sources and the amount of pollutants emitted from those sources, meteorological conditions and topography are also important factors. 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. Unique geographic features throughout the state define 15 air basins with distinctive regional climates. The air quality study area is located in the Santa Clara Valley portion of the SFBAAB.[14]

The Santa Clara Valley is bounded by San Francisco Bay to the north and mountains to the east, south and west. Temperatures are warm on summer days and cool on summer nights; winter temperatures are fairly mild. At the northern end of the valley, mean maximum temperatures are in the low 80s during the summer and the high 50s during the winter. Mean minimum temperatures range from the high 50s in the summer to the low 40s in the winter. Farther inland, where the moderating effect of San Francisco Bay is not as strong, temperature extremes are greater. For example, in San Martin, located 27 miles south of San José International Airport, temperatures can be more than 10 degrees warmer on summer afternoons and more than 10 degrees cooler on winter nights.

Winds in the valley are greatly influenced by the terrain, resulting in a prevailing flow that roughly parallels the valley's northwest-southeast axis. A north-northwesterly sea breeze flows through the valley during the afternoon and early evening, and a light south-southeasterly drainage flow occurs during the late evening and early morning. In the summer, the southern end of the valley sometimes becomes a "convergence zone" when air flowing from Monterey Bay gets channeled northward into the southern end of the valley and meets with the prevailing north-northwesterly winds.

Wind speeds are greatest in the spring and summer and weakest in the fall and winter. Nighttime and early morning hours frequently have calm winds in all seasons, while summer afternoons and evenings are quite breezy. Strong winds are rare, associated mostly with the occasional winter storm.

The air pollution potential of the Santa Clara Valley is high. High summer temperatures, stable air, and the mountains surrounding the valley combine to promote the formation O_3. In addition to the many local sources of pollution, O_3 precursors from San Francisco, San Mateo, and Alameda Counties are carried by prevailing winds to the Santa Clara Valley. The valley tends to channel pollutants to the southeast. In addition, on summer days with low level inversions, O_3 can be recirculated by southerly drainage flows in the late evening and early morning as well as the prevailing northwesterlies in the afternoon. A similar

[14] Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act Air Quality Guidelines.* May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: February 2, 2023.

recirculation pattern occurs in the winter, affecting levels of CO and PM. This movement of the air up and down the valley increases the impact of the pollutants significantly.

Pollution sources are plentiful and complex in this subregion. The Santa Clara Valley has a high concentration of industry at the northern end, in the Silicon Valley. Some of these industries are sources of air toxics as well as criteria air pollutants. In addition, Santa Clara Valley's large population and many work-site destinations generate the highest mobile-source emissions of any subregion in the SFBAAB.

Pollutants of Concern

Criteria Pollutants

Federal and state governments have established ambient air quality standards for six criteria pollutants. O_3 is considered a regional pollutant because its precursors affect air quality on a regional scale. Pollutants such as CO, nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead are considered local pollutants that tend to accumulate in the air locally. PM is both a regional and local pollutant.

All criteria pollutants can have human health effects at certain concentrations. The ambient air quality standards for these pollutants are set to protect public health and the environment with an adequate margin of safety (CAA Section 109). Epidemiological, controlled-human-exposure, and toxicology studies evaluate the potential health and environmental effects of criteria pollutants and form the scientific basis for new and revised ambient air quality standards.

The primary criteria pollutants of concern that could be generated by the Project are O_3 precursors (i.e., ROG, NO_X, CO, PM).[15,16,17] The principal characteristics of the primary criteria pollutants and the possible health and environmental effects from exposure are summarized in Table 3.3-2 and described in more detail below.

Ozone

O_3, a secondary air pollutant, is produced in the atmosphere through a complex series of photochemical reactions involving ROG and NO_X. The main sources of ROG and NO_X, often referred to as O_3 precursors, are combustion processes, including combustion in motor vehicle engines, and the evaporation of solvents, paints, and fuels. In the Bay Area, automobiles are the largest source of O_3 precursors. O_3 is referred to as a *regional* air pollutant because its precursors are transported and diffused by wind concurrently with O_3 production through the photochemical reaction process. O_3 causes eye irritation, airway constriction, and shortness of breath and can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.

[15] As discussed above, there are also ambient air quality standards for SO2, lead, sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particulates. However, these pollutants are typically associated with industrial sources, which are not included as part of the Project. Accordingly, they are not evaluated further.

[16] Most emissions of NOx are in the form of nitric oxide (NO). Conversion to NO2 occurs in the atmosphere as pollutants disperse downwind. Accordingly, NO2 is not considered a local pollutant of concern for the Project and is not evaluated further.

[17] Reşitoğlu, Ibrahim A. 2018. *NO_x Pollutants from Diesel Vehicles and Trends in Control Technologies.* Published November 5. DOI: 10.5772/intechopen.81112. Available: https://www.intechopen.com/books/diesel-and-gasoline-engines/no-sub-x-sub-pollutants-from-diesel-vehicles-and-trends-in-the-control-technologies. Accessed: February 2, 2023.

Carbon Monoxide

CO, an odorless, colorless gas, is usually formed as the result of incomplete combustion in fuels. The largest source of CO is the motor vehicle. CO transport is limited; it disperses with distance from a source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations near congested roadways or intersections may reach unhealthy levels and adversely affect local sensitive receptors (e.g., residents, schoolchildren, the elderly, hospital patients). Typically, high CO concentrations are associated with roadways or intersections that operate at unacceptable levels of service (LOS) or with extremely high traffic volumes. Exposure to high concentrations of CO reduces the oxygen-carrying capacity of the blood and can cause headaches, nausea, dizziness, and fatigue; impair central nervous system function; and induce angina (chest pain) in persons with serious heart disease. Extremely high levels of CO, such as those generated when a vehicle is running in an unventilated garage, can be fatal.

Table 3.3-2. Sources and Health Effects of Air Pollutants

Pollutant	Sources	Primary Effects
Ozone (O_3)	• Precursor sources: motor vehicles, industrial emissions, and consumer products.[a]	• Respiratory symptoms. • Worsening of lung disease, leading to premature death. • Damage to lung tissue. • Crop, forest, and ecosystem damage. • Damage to a variety of materials, including rubber, plastics, fabrics, paints, and metals.
Particulate Matter Less than 2.5 Microns in Aerodynamic Diameter ($PM_{2.5}$)	• Cars and trucks (especially diesel vehicles). • Fireplaces and wood stoves. • Windblown dust from roadways, agriculture, and construction.	• Premature death. • Hospitalization for worsening of cardiovascular disease. • Hospitalization for respiratory disease. • Asthma-related emergency room visits. • Increased asthma symptoms and increased inhaler usage.
Particulate Matter Less than 10 Microns in Aerodynamic Diameter (PM_{10})	• Cars and trucks (especially diesel vehicles). • Fireplaces and wood stoves. • Windblown dust from roadways, agriculture, and construction.	• Premature death and hospitalization, primarily from worsening of respiratory disease. • Reduced visibility and material soiling.
Nitrogen Oxide (NO_X)	• Any source that burns fuel, such as cars, trucks, construction and farming equipment, and residential heaters and stoves.	• Lung irritation. • Enhanced allergic responses.
Carbon Monoxide (CO)	• Any source that burns fuel, such as cars, trucks, construction and farming equipment, and residential heaters and stoves.	• Chest pain in patients with heart disease. • Headaches. • Light-headedness. • Reduced mental alertness.
Sulfur Oxide (SO_X)	• Combustion of sulfur-containing fossil fuels. • Smelting of sulfur-bearing ores. • Industrial processes.	• Worsening of asthma (e.g., increased symptoms, increased medication usage, emergency room visits).
Lead (Pb)	• Contaminated soil. • Lead-based paints.	• Impaired mental functioning in children. • Learning disabilities in children. • Brain and kidney damage.

Pollutant	Sources	Primary Effects
Toxic Air Contaminants (TACs)	• Cars and trucks (especially diesel vehicles). • Industrial sources, such as chrome platers. • Neighborhood businesses, such as dry cleaners and service stations. • Building materials and products.	• Cancer. • Reproductive and developmental effects. • Neurological effects.

Source: California Air Resources Board. 2022. *Common Air Pollutants*. Available: https://ww2.arb.ca.gov/resources/common-air-pollutants. Accessed: February 2, 2023.

Notes:

[a] O_3 is not generated directly by these sources. Rather, precursor pollutants from these sources (ROG and NO_X) react with sunlight to form O_3 in the atmosphere.

Particulate Matter

PM is a class of air pollutant that consists of heterogeneous solid and liquid airborne particles from man-made and natural sources. PM is categorized according to two size ranges: PM10 for particles less than 10 microns in diameter and PM2.5 for particles less than 2.5 microns in diameter. In the Bay Area, motor vehicles generate about half of the air basin's PM through tailpipe emissions as well as brake wear and tire wear; travel over paved and unpaved roads also results in PM in the form of suspended dust particles. Fireplaces and stoves that burn wood, industrial facilities, and construction involving ground-disturbing activities are other sources of such fine particulates, which are small enough to be inhaled into the deepest parts of the human lung and cause adverse health effects. According to CARB, studies in the United States and elsewhere have demonstrated a strong link between elevated particulate levels and premature deaths, hospital admissions, emergency room visits, and asthma attacks. Studies of children's health in California have demonstrated that particle pollution may significantly reduce lung function in children.[18] Statewide attainment of PM standards could reduce the number of premature deaths, hospital admissions for cardiovascular and respiratory disease, asthma-related emergency room visits, and episodes of respiratory illness in California.

Nitrogen Dioxide

NO_2, a reddish-brown gas, is a byproduct of combustion processes. Automobiles and industrial operations are the main sources of NO_2. Aside from its contribution to O_3 formation, NO_2 also contributes to other pollution problems, including high concentrations of fine PM, poor visibility, and acid deposition. NO_2 may be visible as a coloring component on days with high levels of pollution, especially in conjunction with high O_3 levels. NO_2 decreases lung function and may reduce resistance to infection.

Sulfur Dioxide

SO_2 is a colorless acidic gas with a strong odor. It is produced from the combustion of sulfur-containing fuels such as oil, coal, and diesel. SO_2 has the potential to damage materials and can cause health effects at high concentrations. It can irritate lung tissue and increase the risk of acute and chronic respiratory disease. SO_2 also reduces visibility and the level of sunlight at the ground surface.

[18] California Air Resources Board. 2022. *Inhalable Particulate Matter and Health ($PM_{2.5}$ and PM_{10}).* Available: https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health. Accessed: February 2, 2023.

Lead

Lead, a metal, is found naturally in the environment as well as manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phase-out of leaded gasoline, metal processing is currently the primary source of lead emissions. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery factories. Twenty years ago, mobile sources were the main contributor to ambient lead concentrations in the air. In the early 1970s, the EPA established national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. The EPA banned the use of leaded gasoline in highway vehicles in December 1995. As a result of EPA regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector and levels of lead in the air have decreased dramatically.

Toxic Air Contaminants

Although ambient air quality standards have been established for criteria pollutants, no ambient standards exist for TACs. Many pollutants are identified as TACs because of their potential to increase the risk of developing cancer or because of their acute or chronic health risks. For TACs that are known or suspected carcinogens, CARB has consistently found that there are no levels or thresholds below which exposure is risk-free. Individual TACs vary greatly in the risks they present. At a given level of exposure, one TAC may pose a hazard that is many times greater than another. TACs are identified and their toxicity studied by the California Office of Environmental Health Hazard Assessment (OEHHA). The primary TACs of concern associated with the Project are asbestos and DPM.

Asbestos is the name given to several naturally occurring fibrous silicate minerals. Before the adverse health effects of asbestos were identified, asbestos was widely used as insulation and fireproofing in buildings, and it can still be found in some older buildings. It is also found in its natural state in rock or soil. The inhalation of asbestos fibers into the lungs can result in a variety of adverse health effects, including inflammation of the lungs, respiratory ailments (e.g., asbestosis, which is scarring of lung tissue that results in constricted breathing), and cancer (e.g., lung cancer and mesothelioma, which is cancer of the linings of the lungs and abdomen).

DPM is generated by diesel-fueled equipment and vehicles. Within the Bay Area, BAAQMD has found that, of all controlled TACs, emissions of DPM are responsible for about 82 percent of the total ambient cancer risk.[19] Unlike TACs emitted from industrial and other stationary sources, most DPM is emitted from mobile sources, primarily diesel-powered construction and mining equipment, agricultural equipment, truck-mounted refrigeration units, and trucks and buses traveling on freeways and local roadways. Agricultural and mining equipment is not commonly used in the urban parts of the Bay Area, and construction equipment typically operates at various locations for only a limited time. As a result, the readily identifiable locations where DPM is emitted in the Bay Area include high-traffic roadways and other areas with substantial truck traffic.

Short-term exposure to DPM can cause acute irritation (e.g., eye, throat, bronchial), neurophysiological symptoms (e.g., lightheadedness and nausea), and respiratory symptoms (e.g., cough and phlegm). EPA

[19] Bay Area Air Quality Management District. 2017a. *Final 2017 Clean Air Plan.* Adopted: April 19. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed: February 2, 2023.

has determined that diesel exhaust is "likely to be carcinogenic to humans by inhalation."[20] BAAQMD regulates TACs with a risk-based approach that uses a health risk assessment (HRA) to determine which sources and which pollutants to control as well as the degree of control. An HRA is an analysis in which human exposure to toxic substances is estimated and considered together with information regarding the toxic potency of the substances in order to provide a quantitative estimate of health risks.[21] As part of ongoing efforts to identify and assess potential health risks to the public, BAAQMD has collected and compiled air toxics emissions data from industrial and commercial sources of air pollution throughout the Bay Area.

CARB completed a risk management process that identified potential cancer risks for a range of activities and land uses that are affected by the use of diesel-fueled engines.[22] High-volume freeways, stationary diesel engines, and facilities that attract constant and heavy volumes of diesel vehicle traffic (e.g., distribution centers, truck stops) were identified as areas that pose the highest risk for adjacent receptors. Other facilities associated with increased risks include warehouse distribution centers, large retail or industrial facilities, high-volume transit centers, and schools with a high volume of bus traffic. Health risks from TACs are a function of both the concentration and the duration of exposure.

CARB's Diesel Risk Reduction Plan is intended to reduce DPM emissions and associated health risks substantially through the introduction of ultra-low-sulfur diesel fuel, a step that has already been implemented, and cleaner diesel engines.[23] The technology for reducing DPM emissions from heavy-duty trucks is well established, and both state and federal agencies are moving aggressively to regulate engines and emission control systems to reduce and remediate diesel emissions. CARB's plan also established airborne toxic control measures (ATCMs) for mobile sources, including on-road and off-road vehicles, and stationary sources. With implementation of ATCMs, statewide DPM concentrations decreased from approximately 1.8 micrograms per cubic meter ($\mu g/m^3$) to approximately 0.61 $\mu g/m^3$ between 1990 and 2012, resulting in a 66 percent reduction over that period.[24] CARB continues to explore strategies to reduce DPM emissions through engine retrofits, cleaner diesel fuel, advanced engine technologies, and alternative fuels. By 2035, CARB estimates that DPM emissions will be less than half of what they were in 2010.[25]

Air pollutant exposures and their associated health burdens vary considerably at particular locations in relation to the sources of the air pollutants. Motor vehicle traffic is perhaps the most important source of air pollution in urban areas. Air quality research consistently demonstrates that pollutant levels are substantially higher near freeways and busy roadways, and human health studies have consistently demonstrated that children living within 100 to 200 meters (328 to 656 feet) of freeways or busy

[20] U.S. Environmental Protection Agency. 2003. *Diesel Engine Exhaust; CASRN N.A.* February 28. Available: https://cfpub.epa.gov/ncea/iris/iris_documents/documents/subst/0642_summary.pdf#nameddest=woe. Accessed: February 2, 2023.

[21] In general, a health risk assessment is required if BAAQMD concludes that projected emissions of a specific air toxic compound from a new or modified source suggests a potential public health risk. Such an assessment generally evaluates chronic long-term effects, including the increased risk of cancer as a result of exposure to one or more TACs.

[22] California Air Resources Board. 2000b. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.* Available: https://ww2.arb.ca.gov/sites/default/files/classic/diesel/documents/rrpfinal.pdf. Accessed: February 7, 2023.

[23] Ibid.

[24] California Air Resources Board. 2021d. *Overview: Diesel Exhaust and Health*. Available: https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. Accessed: September 29, 2023.

[25] Ibid.

roadways have reduced lung function and higher rates of respiratory disease.[26] Engine exhaust from diesel, gasoline, and other combustion engines is a complex mixture of particles and gases with collective and individual toxicological characteristics. At present, it is not possible to attribute the effects of roadway proximity on non-cancer health effects to one or more specific vehicle type or vehicle pollutant.

Odors

Although offensive odors rarely cause physical harm, they can be unpleasant and lead to considerable distress among the public. This distress often generates citizen complaints to local governments and air districts. According to the BAAQMD CEQA Guidelines and CARB's *Air Quality and Land Use Handbook: A Community Health Perspective*, land uses associated with odor complaints typically include wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, chemical plants, petroleum refineries, auto body shops, coating operations, fiberglass manufacturing plants, foundries, rendering plants, and livestock operations. BAAQMD provides recommended screening distances for citing new receptors near existing odor sources.

Existing Air Quality Conditions

CARB and the EPA maintain ambient air quality monitoring stations within California. The air quality monitoring station closest to the Project site is the 158 Jackson Street monitoring station in San José, approximately 6 miles from the Project site, which monitors criteria air pollutants. The air quality trends from this station are used to represent ambient air quality in the Project area. Ambient air quality in the Project area from 2019 to 2021 (the most recent available period) is shown in Table 3.3-3. The pollutants monitored at the San José-Jackson Street station are O_3, CO, NO_2, PM_{10}, and $PM_{2.5}$.

Table 3.3-3. Ambient Air Quality Data for the Project Area (2019–2021)

Pollutant Standards	2019	2020	2021
Ozone (O_3) at San José-Jackson Street Station			
Maximum 1-hour concentration (ppm)	0.095	0.106	0.098
Maximum 8-hour concentration (ppm)	0.081	0.085	0.084
Fourth highest 8-hour concentration (ppm)	0.060	0.068	0.072
Number of days standard exceeded			
CAAQS 1-hour standard (> 0.09 ppm)	1	1	3
CAAQS 8-hour standard (> 0.070 ppm)	2	2	4
NAAQS 8-hour standard (> 0.070 ppm)	2	2	4
Carbon Monoxide (CO) at San José-Jackson Street Station			
Maximum 8-hour concentration (ppm)	1.3	1.5	1.5
Maximum 1-hour concentration (ppm)	1.7	1.8	1.7
Number of days standard exceeded			
NAAQS 8-hour standard (≥ 9 ppm)	0	0	0
CAAQS 8-hour standard (≥ 9.0 ppm)	0	0	0
NAAQS 1-hour standard (> 35 ppm)	0	0	0
CAAQS 1-hour standard (≥ 20 ppm)	0	0	0

[26] California Air Resources Board. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. April. Available: https://sfmohcd.org/sites/default/files/20%20-%20CARB%2C%20Air%20Quality%20and%20Land%20Use%20Handbook%202005.pdf. Accessed: February 7, 2023.

Pollutant Standards	2019	2020	2021
Nitrogen Dioxide (NO_2) from San José-Jackson Street Station			
Maximum state 1-hour concentration (ppm)	0.0598	0.0519	0.0478
Annual average concentration (ppm)	0.010	0.009	0.008
Number of days standard exceeded			
CAAQS 1-hour standard (0.18 ppm)	0	0	0
NAAQS 1-hour standard (0.100 ppm)	0	0	0
Particulate Matter (PM_{10}) at San José-Jackson Street Station			
Maximum state 24-hour concentration (μg/m³)	77.1	137.1	45.1
Maximum national 24-hour concentration (μg/m³)	75.4	134.9	42.8
National annual average concentration	18.4	24.6	19.6
Measured number of days standard exceeded			
CAAQS 24-hour standard (50 μg/m³)	4	10	0
NAAQS 24-hour standard (150 μg/m³)	0	0	0
Particulate Matter ($PM_{2.5}$) at San José-Jackson Street Station			
Maximum state 24-hour concentration (mg/m³)	34.4	120.5	38.1
Maximum national 24-hour concentration (mg/m³)	27.6	120.5	38.1
National annual average concentration	9.0	11.5	8.8
Measured number of days standard exceeded			
NAAQS 24-hour standard (> 35 μg/m³)	0	12	1

Sources:

California Air Resources Board. 2021. *iADAM: Air Quality Data Statistics.* Top 4 Summary. Available: https://www.arb.ca.gov/adam/topfour/topfour1.php. Accessed: February 2, 2023.

U.S. Environmental Protection Agency. 2021. *Monitor Values Report.* Available: https://www.epa.gov/outdoor-air-quality-data/monitor-values-report. Accessed: February 2, 2023.

Notes:

NAAQS = National Ambient Air Quality Standard; CAAQS = California Ambient Air Quality Standard; ppm = parts per million; μg/m³ = micrograms per cubic meter

An exceedance is not necessarily a violation.

State statistics are based on local conditions data. State statistics are based on California-approved samplers.

National statistics are based on standard conditions data. In addition, national statistics are based on samplers, using federal reference or equivalent methods.

State criteria for ensuring data are adequate for calculating valid annual averages are more stringent than national criteria.

Existing TAC Sources and Health Risks

BAAQMD maintains an online inventory of health risks associated with all permitted stationary sources within the SFBAAB.[27] Sixteen permitted facilities within 1,000 feet of the Project site have a background health risk associated with them. Detailed information on these facilities is included in Appendix 3.3-1. Aside from stationary sources, emissions of TACs around the Project site are also generated from mobile sources and railways. BAAQMD considers roadways with an average daily traffic (ADT) level of more than 10,000 to be "high-volume roadways" and recommends they be included in the analysis of health risks.

[27] Bay Area Air Quality Management District. 2020. *Stationary-Source Screening Map*. Available: https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=845658c19eae4594b9f4b805fb9d89a3. Accessed: February 2, 2023.

Regional Attainment Status

Local monitoring data are used to designate areas as nonattainment, maintenance, attainment, or unclassified areas for ambient air quality standards. The four designations are defined below. Table 3.3-4 summarizes the attainment status of Santa Clara County.

- Nonattainment—Assigned to areas where monitored pollutant concentrations consistently violate the standard in question.
- Maintenance—Assigned to areas where monitored pollutant concentrations exceeded the standard in question in the past but are no longer in violation of that standard.
- Attainment—Assigned to areas where pollutant concentrations meet the standard in question over a designated period of time.
- Unclassified—Assigned to areas where data are insufficient for determining whether a pollutant is violating the standard in question.

Table 3.3-4. Federal and State Attainment Status for Santa Clara County Portion of the SFBAAB

Criteria Pollutant	Federal Designation	State Designation
Ozone (8-hour)	Marginal Nonattainment	Nonattainment
Carbon Monoxide (CO)	Attainment	Attainment
Particulate Matter (PM_{10})	Unclassified	Nonattainment
Fine Particulate Matter ($PM_{2.5}$)	Moderate Nonattainment (2006)	Nonattainment
Nitrogen Dioxide (NO_2)	Attainment	Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	(No Federal Standard)	Attainment
Hydrogen Sulfide	(No Federal Standard)	Unclassified
Visibility-Reducing Particles	(No Federal Standard)	Unclassified

Source:
California Air Resources Board. 2020. *State Area Designations Regulations.* Appendix C: Maps and Tables of Area Designations for State and National Ambient Air Quality Standards. October. Available: https://ww3.arb.ca.gov/regact/2021/sad20/appc.pdf. Accessed: February 2, 2023.
U.S. Environmental Protection Agency. 2023. *California Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants.* January 31. Available: https://www3.epa.gov/airquality/greenbook/anayo_ca.html. Accessed: February 6, 2023.

Sensitive Receptors

Sensitive land uses are generally considered to include those where exposure to pollutants could result in health-related risks to sensitive individuals, including children and the elderly. Per BAAQMD, typical sensitive land uses include residences, hospitals, and schools. Parks and playgrounds where sensitive receptors (e.g., children and seniors) are present are also considered sensitive land uses.[28] Places of employment (e.g., commercial/industrial uses) are not considered sensitive land uses because health-sensitive individuals (e.g., children and seniors) are not present.

[28] Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act, Air Quality Guidelines*. May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: February 2, 2023.

Sensitive receptors located near the Project site include the residences west of Calabazas Creek, which are approximately 600 feet west of the Project site. There are no schools within 1,000 feet of the Project site.

Environmental Impacts

This section describes the impact analysis related to air quality for the Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

Thresholds of Significance

The Project would have a significant effect if it would result in any of the conditions listed below.

- Conflict with or obstruct implementation of the applicable air quality plan (AQ-1 and C-AQ-1).
- Result in a cumulatively considerable net increase in any criteria pollutant for which the Project region is in nonattainment status under an applicable federal or State ambient air quality standard (AQ-2 and C-AQ-2).
- Expose sensitive receptors to substantial pollutant concentrations (AQ-3 and C-AQ-3).
- Result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people (AQ-4 and C-AQ-4).

Local Air District Thresholds

Regional Thresholds for Air Basin Attainment of State and Federal Ambient Air Quality Standards

This analysis evaluates the impacts of regional emissions generated by the Project using a two-tiered approach that considers guidance recommended by BAAQMD in the agency's CEQA Guidelines.[29] First, this analysis considers whether the Project would conflict with the most recent air quality plan.[30] Specifically, the impact analysis evaluates whether the Project would support the primary goals of the 2017 Clean Air Plan, including applicable control measures, and whether it would disrupt or hinder implementation of any control measures. Second, calculated regional criteria pollutant emissions[31] are compared with BAAQMD's project-level thresholds. BAAQMD's thresholds, as summarized in Table 3.3-5, are recommended by the agency to evaluate the significance of a project's regional criteria pollutant emissions. According to BAAQMD, projects with emissions in excess of the project-level thresholds, shown in Table 3.3-5, would be expected to have a significant cumulative impact on regional air quality because an exceedance of the thresholds is anticipated to contribute to NAAQS and CAAQS violations.

[29] Ibid.

[30] Bay Area Air Quality Management District. 2017a. *Final 2017 Clean Air Plan.* Adopted April 19. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed: February 2, 2023.

[31] Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act Air Quality Guidelines.* May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: February 2, 2023.

Table 3.3-5. BAAQMD Project-Level Regional Criteria Pollutant Emissions Thresholds

Analysis	Thresholds
Regional Criteria Pollutants (Construction)	• Reactive Organic Gases: 54 pounds/day • Nitrogen Oxides: 54 pounds/day • Particulate Matter (PM_{10}): 82 pounds/day (exhaust only); compliance with best management practices (fugitive dust) • Fine Particulate Matter ($PM_{2.5}$): 54 pounds/day (exhaust only); compliance with best management practices (fugitive dust)
Regional Criteria Pollutants (Operations)	• Reactive Organic Gases: Same as construction • Nitrogen Oxides: Same as construction • Particulate Matter (PM_{10}): 82 pounds/day • Fine Particulate Matter ($PM_{2.5}$): 54 pounds/day

Source: Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act Air Quality Guidelines*. May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: February 2, 2023.

Significance thresholds established by an air district are used to manage total regional and local emissions within an air basin, based on the air basin's attainment status for criteria air pollutants. The project-level emission thresholds, shown in Table 3.3-5, were established for individual development projects that could contribute to regional and local emissions and adversely affect or delay an air basin's projected attainment target goals for nonattainment criteria air pollutants.

Because of the conservative nature of the significance thresholds, as well as the basin-wide context of individual development project emissions, there is no direct correlation between a single project and localized air quality–related health effects. One individual project that generates emissions that exceed a threshold does not necessarily result in adverse health effects for residents in the vicinity. This condition is especially true when the criteria air pollutants that exceed thresholds are those with regional effects, such as O_3 precursors (e.g., NO_X and ROGs). Furthermore, by its very nature, air pollution is largely a cumulative impact. No single project is large enough by itself to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality is considered significant. In developing thresholds of significance for air pollutants, the air districts have considered the emission levels at which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts on the region's existing air quality conditions.

Health-Based Thresholds for Project-Generated Pollutants of Human Health Concern

The California Supreme Court's 2018 decision in *Sierra Club v. County of Fresno* (2018), 6 Cal.5th 502, hereafter referred to as the Friant Ranch Decision, included review of the long-term regional air quality analysis contained in the environmental impact report (EIR) for the proposed Community Plan Update and Friant Ranch Specific Plan (Friant Ranch Project). The Friant Ranch Project proposed a 942-acre master-plan development in unincorporated Fresno County, within the San Joaquin Valley Air Basin, which is currently designated as a nonattainment area with respect to the NAAQS and CAAQS for O_3 and $PM_{2.5}$. The court found that the EIR's air quality analysis was inadequate because it failed to provide enough detail "for the public to translate the bare [criteria pollutant emissions] numbers provided into adverse health impacts or to understand why such a translation is not possible at this time" (6. Cal. 5th

502, 525). Pursuant to the Friant Ranch Decision, environmental documents must attempt to connect a project's air quality impacts to specific health effects or explain why it is not technically feasible to perform such an analysis.

All criteria pollutants generated by the Project are associated with some form of health risk (e.g., asthma, lower respiratory problems). Criteria pollutants can be classified as either regional pollutants or localized pollutants. Regional pollutants can be transported over long distances and affect ambient air quality far from the emissions source. Localized pollutants affect ambient air quality near the emissions source. O_3 is considered a regional criteria pollutant, whereas CO, NO_2, SO_2, and lead are localized pollutants. PM can be both a local and a regional pollutant, depending on its composition. The primary criteria pollutants of concern generated by the Project would be O_3 precursors (i.e., ROG and NO_X), CO, and PM, including DPM.

The sections that follow discuss thresholds and analysis considerations for regional and local Project-generated criteria pollutants with respect to their human health implications.

Regional Project-Generated Criteria Pollutants (Ozone Precursors and Regional Particulate Matter)

Adverse health effects from regional criteria pollutant emissions, such as O_3 precursors and PM, generated by the Project are highly dependent on a multitude of interconnected variables, including cumulative concentrations, local meteorology and atmospheric conditions, and the number and characteristics of exposed individuals (e.g., age, gender). Therefore, O_3 precursors (ROG and NO_X) contribute to the formation of ground-borne O_3 on a regional scale. However, emissions of ROG and NO_X generated in an area may not correlate to a specific O_3 concentration in that same area. Similarly, some types of particulate pollutant may be transported over long distances or formed through atmospheric reactions. As such, the magnitude and locations of specific health effects from exposure to increased O_3 or regional PM concentrations are the product of emissions generated by numerous sources throughout a region as opposed to a single individual project. Moreover, exposure to regional air pollution does not guarantee that an individual will experience an adverse health effect. As discussed above, there are large individual differences in the intensity of symptomatic responses to air pollutants. These differences are influenced, in part, by the underlying health condition of an individual, which cannot be known.

Models and tools have been developed to correlate regional criteria pollutant emissions to potential community health impacts. Although models are capable of quantifying O_3 and any secondary PM formation and associated health effects, these tools were developed to support large regional planning and policy analysis and have limited sensitivity to small changes in criteria pollutant concentrations induced by individual projects. As of the preparation of this analysis, BAAQMD has not approved a quantitative method for accurately correlating criteria pollutant emissions generated by an individual Project to specific health outcomes or changes in nonattainment days.

As discussed above, air districts develop region-specific CEQA thresholds of significance in consideration of existing air quality concentrations as well as attainment or nonattainment designations under the NAAQS and CAAQS, which are informed by a wide range of scientific evidence that demonstrates that there are known safe concentrations of criteria pollutants. Although recognizing that air quality is a cumulative problem, air districts typically consider projects that generate criteria pollutant and O_3 precursor emissions that are below the thresholds to be minor in nature. Such projects would not adversely affect air quality or exceed the NAAQS or CAAQS. Emissions generated by the Project could increase photochemical reactions and the formation of tropospheric O_3 as well as secondary PM, which, at certain concentrations, could lead to increased incidences of specific health consequences. Although these health effects are associated with O_3 and particulate pollution, the effects are a result of cumulative and regional emissions. Despite the challenges described above, a quantitative correlation of Project-

generated regional criteria pollutant emissions to specific human health impacts has been conducted to evaluate comprehensively the potential health impacts that could result from implementation of the Project. The analysis of health impacts from criteria pollutant emissions is presented in Appendix 3.3-2.

Localized Project-Generated Criteria Pollutant Emissions (Carbon Monoxide and Particulate Matter) and Air Toxics (Diesel Particulate Matter and Asbestos)

Localized pollutants generated by a project can be deposited near the emissions source, potentially affecting the nearby population. Although these pollutants dissipate with distance, emissions from individual projects can result in direct and material health impacts on adjacent sensitive receptors. The localized pollutants of concern that would be generated by the Project are CO, PM, DPM, and asbestos. The applicable thresholds for each pollutant are described below.

Carbon Monoxide

Heavy traffic congestion can contribute to high levels of CO. Individuals exposed to such "hot spots" may have a greater likelihood of developing adverse health effects. BAAQMD has adopted screening criteria that provide a conservative indication of whether project-generated traffic would cause a potential CO hot spot. If the screening criteria are met, a quantitative analysis, through site-specific dispersion modeling of project-related CO concentrations, is not necessary for a project. Put another way, a project would not cause localized violations of the CAAQS for CO if the BAAQMD's CO screening criteria, summarized below, are met.[32]

- Project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- Project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., a tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).
- A project would be consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, the regional transportation plan, and local congestion management agency plans.

BAAQMD does not consider construction-generated CO to be a significant pollutant of concern because construction activities typically do not generate substantial quantities of this particular pollutant.[33]

Particulate Matter

BAAQMD adopted an incremental $PM_{2.5}$ concentration-based significance threshold in which a "substantial" contribution at the project level for an individual source is defined as total (i.e., exhaust and fugitive) $PM_{2.5}$ concentrations exceeding 0.3 $\mu g/m^3$. In addition, BAAQMD considers projects to have a cumulatively considerable $PM_{2.5}$ impact if sensitive receptors are exposed to $PM_{2.5}$ concentrations from local sources within 1,000 feet, including existing sources, project-related sources, and reasonably foreseeable future sources, that exceed 0.8 $\mu g/m^3$.[34]

BAAQMD has not established concentration-based PM_{10} thresholds of significance. BAAQMD's $PM_{2.5}$ thresholds apply to both new receptors and new sources. However, BAAQMD considers impacts related

[32] Ibid.
[33] Ibid.
[34] Ibid.

to fugitive PM_{10} from earthmoving activities to be less than significant with application of BAAQMD's basic construction measures.

Diesel Particle Matter

DPM has been identified as a TAC. It is particularly concerning because long-term exposure can lead to cancer, birth defects, and damage to the brain and nervous systems. BAAQMD has adopted incremental cancer and hazard thresholds to evaluate receptor exposure to single sources of DPM emissions. The "substantial" DPM threshold defined by BAAQMD is exposure of a sensitive receptor to an individual emissions source, resulting in an excess cancer risk level of more than 10 in 1 million or a non-cancer (i.e., chronic or acute) hazard index greater than 1.0.[35] BAAQMD also considers projects to have a cumulatively considerable DPM impact if they contribute to DPM emissions that, when combined with cumulative sources within 1,000 feet of sensitive receptors, result in excess cancer risk levels of more than 100 in 1 million or an hazard index greater than 10.0. BAAQMD considers projects to have a significant cumulative impact if they worsen an existing health risk impact and introduce new receptors at a location where the combined exposure to all cumulative sources within 1,000 feet is in excess of cumulative thresholds.[36]

Asbestos

BAAQMD considers a project to have a significant impact if it does not comply with the applicable regulatory requirements outlined in Regulation 11, Rule 2, Asbestos Demolition, Renovation, and Manufacturing. As described above in the *Regulatory Setting,* BAAQMD Regulation 11, Rule 2, controls emissions of asbestos to the atmosphere during demolition, renovation, and transportation. The rule requires lead agencies and their contractors to notify BAAQMD of any regulated renovation or demolition activity and provide a description of structures and methods utilized to determine whether asbestos-containing materials are potentially present. In addition, Regulation 11, Rule 2, requires any asbestos-containing material found on a site to be removed prior to demolition or renovation, thereby minimizing the release of airborne asbestos emissions. As a result, the BAAQMD CEQA Guidelines note that projects that are in compliance with Regulation 11, Rule 2, would not have a significant air quality impact with respect to asbestos emissions.[37]

Odors

BAAQMD[38] and CARB[39] have identified several types of land uses as being commonly associated with odors (e.g., landfills, wastewater treatment facilities, animal processing operations). BAAQMD's CEQA Guidelines recommend that project analyses identify the location of existing and planned odor sources and include policies to reduce potential odor impacts on a project site.

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35 Ibid.

36 Ibid.

37 Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act, Air Quality Guidelines*. May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: February 2, 2023.

38 Ibid.

39 California Air Resources Board. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective.* April. Available: https://sfmohcd.org/sites/default/files/20%20-%20CARB%2C%20Air%20Quality%20and%20Land%20Use%20Handbook%202005.pdf. Accessed: February 2, 2023.

Methods for Analysis

Air quality impacts associated with construction and operation of the Project were assessed and quantified using standard and accepted software tools, calculations, and emission factors. A summary of the methodologies used to quantify the Project's air pollutant emissions, resulting health risks, and CO hot-spot concentrations is provided below. Impacts associated with odors and asbestos were evaluated qualitatively and are not discussed further in this section.

Construction

Construction of the Project would generate ROG, NO_X, PM_{10}, and $PM_{2.5}$ emissions that could result in short-term air quality effects during the construction period. Emissions would be released in the form of exhaust from off-road equipment, exhaust from employees' vehicles and haul trucks, fugitive dust from site grading and earthmoving, suspended road dust from vehicle travel, and off-gassing from architectural coatings and paving.

Emissions were estimated using a combination of emissions factors and methodologies from the California Emissions Estimator Model (CalEEMod), version 2022.1;[40] the CARB EMission FACtor 2021 (EMFAC2021) model;[41] and EPA AP-42: Compilation of Air Pollutant Emission Factors.[42] The emissions estimates used both CalEEMod default data as well as Project-specific information provided by the Project Sponsor prior to preparation of this analysis and review by the EIR consultant team.

A detailed description of model input and output parameters as well as assumptions for the Project are provided in Appendix 3.3-1.

Operation

For purposes of this analysis, the Project was assumed to be fully operational by 2034. Operation of the Project would generate emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ that could result in long-term air quality effects. Existing uses at the Project site generate emissions of the same pollutants. The methodologies used to estimate criteria pollutant emissions resulting from operation of the Project as well as existing uses are described below. A detailed description of the model input parameters, output files, and assumptions is provided in Appendix 3.3-1.

Criteria pollutant emissions from motor vehicles associated with development of the Project were evaluated using CalEEMod, which uses emission factors from EMFAC2021, along with trip generation rates and estimates of vehicle miles traveled (VMT) provided by the transportation consultants for the Project. For existing uses, it was assumed that mobile-source emissions are zero because of the uncertainty regarding the vacancy of the uses and the unavailability of data for trip generation rates and VMT associated with the existing uses. This assumption is conservative because excluding existing mobile-source emissions results in a greater net effect from the Project.

[40] California Air Pollution Control Officers Association. 2022. *California Emissions Estimator Model User Guide and Appendices A through G.* April. Available: https://caleemod.com/user-guide. Accessed: December 2022.

[41] California Air Resources Board. 2022a. *EMission FACtor (EMFAC) 2021.* April. Available: https://arb.ca.gov/emfac/. Accessed: December 2022.

[42] U.S. Environmental Protection Agency. 2022b. *AP-42: Compilation of Air Emissions Factor*. Available: https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emissions-factors. Accessed: December 2022.

For operational energy use, CalEEMod estimates criteria pollutant emissions from the onsite combustion of natural gas but not from electricity consumption. As described in Chapter 2, *Project Description*, although the City prohibits new connections to natural gas in most new construction under its recently adopted all-electric reach code, the code contains limited exceptions for certain uses such as research-and-development (R&D)/lab uses. As such, this analysis evaluates potential criteria pollutant emissions resulting from the use of natural gas onsite. The Project Sponsor provided electricity and natural gas consumption estimates for the proposed uses, and CalEEMod default values were used for the existing uses.

Area-source emissions would result from the reapplication of architectural coatings as part of ongoing building maintenance, the use of consumer products, and the use of landscaping equipment. CalEEMod default values were used for both the proposed uses and existing uses.

For purposes of this analysis, it was assumed that stationary-source emissions would result from the testing of 21 diesel-powered emergency generators with a 536-horsepower rating. Each generator was assumed to operate 50 hours per year during scheduled testing. The analysis assumes that one maintenance crew would conduct the testing. It was also assumed that four emergency generators would undergo testing and maintenance in a single day. This is a conservative assumption and thus very likely overstates Project emissions. Therefore, CalEEMod was used to estimate air pollutant emissions from four emergency generators operating each day. CalEEMod lets users enter separate values for daily generator testing and annual generator testing but only for one generator. To estimate daily emissions, four generators were modeled in CalEEMod, with each operating 4 hours per day; however, the hours-per-year value for the generators was adjusted upward to account for the fact that there would actually be 21 generators operating on an annual basis.[43] In other words, although the CalEEMod annual analysis includes only four generators, the hours of operation for the four generators has been scaled upward to equal the total number of hours of operation for all 21 generators.

Based on information provided by the Project Sponsor, there may be minor changes in the distribution of the Project's nonresidential uses (i.e., office/R&D, retail, childcare, and community amenity spaces) between Areas A, B, C, and D. To account for potential changes in the distribution of the Project's nonresidential land use types between Areas A, B, C, and D, this analysis conservatively applies a 5 percent buffer to each of the proposed nonresidential land uses. Increases in land use sizes corresponding to the 5 percent buffer result in increased emissions from area sources, water consumption, and waste generation. This is a conservative approach because the total amount of new building space would not change; rather, there would be only minor changes in the distribution of nonresidential uses between Areas A, B, C, and D. The 5 percent buffer was not applied to the Project's mobile- and stationary-source emissions calculations because the total number of vehicle trips, total VMT, and emergency generator activities would not be affected by minor changes in the distribution of nonresidential land uses between Areas A, B, C, and D.

Carbon Monoxide Hot-Spots Modeling

The analysis of CO impacts was conducted using CARB's EMFAC2021 model, the CALINE4 dispersion model, and evening peak-hour turning movement data provided by the transportation consultants for the

[43] Twenty-one emergency generators operating for 50 hours per year would result in 1,050 total hours of operation. Because the CalEEMod analysis includes four emergency generators for a worst-case daily scenario, the total number of operational hours for 21 generators (1,050) was divided by 4 to estimate operational emissions of 21 emergency generators: 21 emergency generators × 50 hours per generator year = 1,050 hours per year/four emergency generators = 262.5 hours per generator per year.

Project. Dispersion modeling, using the CALINE4 model, was based on the California Department of Transportation's *Transportation Project-Level Carbon Monoxide Protocol*.[44] To evaluate a worst-case scenario, the intersection with the highest peak-hour traffic volumes (Mission College Boulevard and Montague Expressway) was modeled. This intersection did not meet BAAQMD's CO screening criteria, described above, because it would not be consistent with the applicable congestion management plan. Therefore, a quantitative analysis, through site-specific dispersion modeling of project-related CO concentrations, was performed.

Traffic conditions for the Project were modeled to evaluate CO hot-spot concentrations at the Mission College Boulevard and Montague Expressway intersection. Receptors were placed at each corner of the intersection and at a standard receptor elevation of 1.8 meters.[45] Worst-case wind angles and meteorological conditions were modeled to estimate conservative CO concentrations at each receptor. CO concentrations at the nearest monitoring station to the Project site (i.e., 158 Jackson Street in San José) from 2019 through 2021 were gathered and converted into a 3-year average to represent background CO levels. The output files are provided in Appendix 3.3-1.

Health Risk Analysis

An HRA was prepared to quantify the levels of exposure from emissions of TACs and $PM_{2.5}$ at sensitive receptors and future onsite receptors from both Project construction and operation. The HRA methods are described below. All HRA modeling assumptions and results can be found in Appendix 3.3-1.

DPM and $PM_{2.5}$

The Project would generate DPM and $PM_{2.5}$ emissions during construction and operations. Because the Project would introduce DPM and $PM_{2.5}$ emissions in an area near existing sensitive receptors, an HRA was conducted in accordance with BAAQMD guidelines. The HRA uses EPA's most recent air dispersion model, AERMOD (version 22112); cancer and chronic risk assessment values for DPM provided by OEHHA; and other assumptions for model inputs recommended in BAAQMD's Health Risk Assessment Modeling Protocol.[46] The HRA applies the most recent guidance and calculation methods from OEHHA's *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments*.[47] The HRA consists of three parts: an emissions inventory, air dispersion modeling, and risk calculations. A description of each part is provided below.

Emissions Inventory

The emissions inventory includes DPM and $PM_{2.5}$ emissions from construction and operations. During construction, off-road equipment and on-road trucks would generate DPM emissions. The construction $PM_{2.5}$ inventory consists of $PM_{2.5}$ emissions from equipment, fugitive dust generated from the onsite movement of soil, and exhaust from trucks and construction workers' vehicles on roadways.

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[44] California Department of Transportation. 1997. *Transportation Project-Level Carbon Monoxide Protocol.* Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/co-protocol-searchable-a11y.pdf. Accessed: February 8, 2023.

[45] Ibid.

[46] Bay Area Air Quality Management District. 2020b. *Health Risk Assessment Modeling Protocol*. December. Available: https://www.baaqmd.gov/~/media/files/ab617-community-health/facility-risk-reduction/documents/baaqmd_hra_modeling_protocol-pdf.pdf?la=vi-vn. Accessed: March 1, 2023.

[47] Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments*, February 2015. Available: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf. Accessed: December 2022.

The operational DPM inventory includes $PM_{2.5}$ emissions from testing the emergency generators and the operation of diesel-fueled delivery trucks. The operational $PM_{2.5}$ inventory consists of $PM_{2.5}$ emissions from diesel sources, fugitive dust from vehicles traveling to and from the site on roadways, and exhaust from vehicles, both gasoline and diesel powered, traveling to and from the site.

Air Dispersion Modeling

The HRA used EPA's AERMOD model to model annual average DPM and $PM_{2.5}$ concentrations at existing and future onsite receptors. Modeling inputs, including emission rates and source characteristics (e.g., release height, stack diameter, plume width) were based on guidance provided by OEHHA, BAAQMD, and the South Coast Air Quality Management District (SCAQMD).[48]

The Project site is located between two monitoring stations that collect meteorological data: Moffett Field (KNUQ) and San José International Airport (KSJC). To conservatively model the worst-case scenario for sensitive receptors, meteorological data from KNUQ air monitoring was used to model onsite receptors, and meteorological data from KSJC was used to model offsite receptors.[49] The AERMET data, provided by BAAQMD, represents 2013 through 2017 monitoring.[50]

Construction

Onsite construction emissions from off-road equipment were characterized as a polygon area source that outlines the footprint of the four different development areas (Areas A, B, C, and D). A release height of 5.0 meters represented exhaust emissions, and a release height of zero meters above the ground represented onsite fugitive dust emissions.[51] The release height represents the height above the ground at which pollutants are emitted. On-road travel emissions from haul and vendor trucks (for DPM and $PM_{2.5}$) and construction workers' vehicles (for $PM_{2.5}$) were characterized as line volume sources with release heights of 0.9 meter for fugitive dust emissions and 3.4 meters for exhaust emissions. Line volume sources represent a series of individual volumes sources.

To account for the plume rise associated with mechanically generated air turbulence from construction emissions for the AERMOD run, the initial vertical dimension of the area source was modeled at 1.4 meters for exhaust and 1.0 meter for fugitive dust; for the line volume sources, the initial vertical dimensions were 3.2 meters for exhaust and 0.8 meter for fugitive dust. Plume rise is the height that pollutants rise above a release height. For exhaust, plume rise occurs because of the temperature of the exhaust gas because exhaust gas temperatures can be high, which causes the plume to rise. For dust, plume rise accounts for the mechanical entrainment of dust in the wheels of equipment and trucks. Emissions from off-road equipment were assumed to be generated throughout the construction footprint. Emissions from offsite trucks were modeled along the road segments adjacent to the construction footprint. Table 3.3-6

[48] Certain information necessary for modeling, such as source parameters (e.g., source heights), is not available from BAAQMD but is provided by SCAQMD. These parameters do not depend on a project's geographic location and are appropriate to use in areas outside of SCAQMD's jurisdiction.

[49] KSJC AERMET data resulted in higher offsite concentrations for sensitive receptors; the KNUQ AERMET data resulted in higher onsite concentrations for sensitive receptors.

[50] Bay Area Air Quality Management District. 2022. *AERMOD-Ready Meteorological Data*. November. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools/ceqa-modeling-data. Accessed: December 2022.

[51] South Coast Air Quality Management District. 2008. *Final Localized Significance Threshold Methodology*. Revised July. Available: https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2. Accessed: March 2022.

summarizes the source parameters used in the construction HRA. The construction DPM emissions and figures highlighting the construction footprint modeled in the HRA can be seen in Appendix 3.3-1.

Modeling Domain and Receptor Network

The modeling of emissions from construction activities was based on typical construction hours and days (8 hours per day, 5 days per week). The urban dispersion option was used in the analysis because the Project site is located in an urban area. In addition, the surrounding areas are developed with buildings and paved surfaces that can influence how pollutants are dispersed in the area.

Offsite sensitive receptors were modeled in AERMOD at individual residential properties, workers' sites, recreational uses, or school sites in all directions within at least 1,000 feet of the Project site using a 10-by 10-meter receptor grid. Onsite sensitive receptors were modeled at the locations of the future buildings in the four different development areas. Residential receptors were modeled at the buildings in Area D; worker receptors were modeled at the buildings in Areas A, B, and C; and recreational receptors were modeled at the outdoor green spaces in all four areas. Receptors were given a height of 1.5 meters to represent the average human breathing zone, consistent with BAAQMD guidance.[52]

Table 3.3-6. Construction Source Parameters

AERMOD Source Name	AERMOD Source Type[a,b,c]	Release Height[d] (m)	Initial Vertical Dimension[d] (m)	Emissions Rate (g/s)	Plume Width (m)
1C_EX	Polygon Area – Exhaust Emissions	5.0	1.4	1.0	n/a
2D_EX	Polygon Area – Exhaust Emissions	5.0	1.4	1.0	n/a
3B_EX	Polygon Area – Exhaust Emissions	5.0	1.4	1.0	n/a
4A_EX	Polygon Area – Exhaust Emissions	5.0	1.4	1.0	n/a
1C_DST	Polygon Area – Dust Emissions	0	1.0	1.0	n/a
2D_DST	Polygon Area – Dust Emissions	0	1.0	1.0	n/a
3D_DST	Polygon Area – Dust Emissions	0	1.0	1.0	n/a
4D_DST	Polygon Area – Dust Emissions	0	1.0	1.0	n/a
ONRD_EX	Line Volume – Mobile Exhaust Emissions	3.4	3.2	1.0	24.3
ONRD_DST	Line Volume – Mobile Dust Emissions	0.85	0.79	1.0	24.3

Notes: n/a = not applicable; m = meters; g/s = grams per second.

a. Emissions sources are defined as follows:
   - Volume sources are three-dimensional sources of diffuse air pollutant emissions, comprising an area of emissions released at a specific height above the ground.
   - Area sources are used to model releases that occur over an area.

b. Emissions sources encompassed the footprint where construction activities would occur.

c. Source types are consistent with recommendations from BAAQMD.

d. Release height and initial lateral dimension values were consistent with industry practice and recommendations from SCAQMD and the Sacramento Metropolitan Air Quality Management District.

[52] Bay Area Air Quality Management District. 2020b. *Health Risk Assessment Modeling Protocol*. December. Available: https://www.baaqmd.gov/~/media/files/ab617-community-health/facility-risk-reduction/documents/ baaqmd_hra_modeling_protocol_august_2020-pdf.pdf?la=en. Accessed: April 15, 2021.

Operations

Operations would generate DPM and $PM_{2.5}$ from vehicle travel and the testing of the twenty-one 536-horsepower EPA Tier 3 emergency generators. For the $PM_{2.5}$ analysis, on-road travel emissions from delivery trucks, buses, and other vehicles accessing the site were characterized as line-volume sources, with release heights of 0.9 meter for fugitive dust emissions and 3.4 meters for exhaust emissions. To account for plume rise associated with mechanically generated air turbulence from operational emissions for the AERMOD run, the initial vertical dimension for the line-volume sources was set as 3.2 meters for exhaust and 0.8 meter for fugitive dust. Table 3.3-7 highlights the source parameters used in the operational HRA.

Similar to construction, the urban dispersion option considered the Project site's characteristics. Offsite sensitive receptors were modeled in AERMOD at individual residential properties, workers' sites, recreational uses, or school sites in all directions within 1,000 feet of the Project site using a 10- by 10-meter receptor grid. Onsite sensitive receptors were modeled at the locations of the future buildings in the four different areas. Residential receptors were modeled for the buildings in Area D; worker receptors were modeled for the buildings in Areas A, B, and C; and recreational receptors were modeled at the outdoor green spaces in all four areas. Receptors were given a height of 1.5 meters to represent the average human breathing zone, consistent with BAAQMD guidance.[53]

Table 3.3-7. Operational HRA Source Parameters

AERMOD Source Name	AERMOD Source Type[a,b]	Release Height[d,e] (m)	Plume Width (m)	Initial Vertical Dimension[c] (m)	Stack Diameter (m)[f]	Stack Exit Temperature (Kelvin)[f]	Stack Exit Flow Rate (m/s)[f]
EMGEN[e]	Point Source	2.64	n/a	n/a	0.31	840.6	1.37
ONRD_EX	Line Volume – Mobile Exhaust Emissions	3.4	24.3	1.0	n/a	n/a	n/a
ONRD_DST	Line Volume – Mobile Dust Emissions	0.85	0.79	1.0	n/a	n/a	n/a

Refer to Appendix B.

Notes: n/a = not applicable; m = meters; m/s = meters per second.

a. The emissions sources are defined as follows:
   - Volume sources are three-dimensional sources of diffuse air pollutant emissions, comprising an area of emissions released at a specific height above the ground.
   - Point sources are used to model stack or exhaust releases at a fixed coordinate.

b. Emissions sources encompassed the footprint where construction activities would occur.

c. Source types are consistent with recommendations from BAAQMD.

d. Release height and initial lateral dimension values were consistent with industry practice and recommendations from SCAQMD and the Sacramento Metropolitan Air Quality Management District.

e. In total, 21 EPA Tier 3 emergency generators would be spread across the 48.5-acre Project site.

f. Tier 3 emergency generator source parameters were taken directly from the Caterpillar D400 GC specification sheet.

[53] Ibid.

Health Risk Exposure Estimation

The risk calculations incorporate OEHHA's age sensitivity factors, which account for increased sensitivity to carcinogens during early-in-life exposure. The approach for estimating cancer risk from long-term inhalation, including exposure to carcinogens, requires calculating a range of potential doses and multiplying by cancer potency factors in units corresponding to the inverse dose to obtain a range of cancer risks. For cancer risk, the risk for each age group is calculated using the appropriate daily breathing rates, age sensitivity factors, and exposure durations. The cancer risks calculated for individual age groups are summed to estimate the cancer risk for each receptor. Chronic cancer and hazard risks were calculated using values from OEHHA's 2015 HRA guidance.[54]

Nine cancer risk scenarios were evaluated for the Project:

1. The first scenario evaluates offsite receptors beginning in the third trimester of pregnancy (in-utero), exposed to the full construction duration of 9.55 years.
2. The second scenario evaluates offsite receptors beginning in the third trimester of pregnancy, with receptors exposed to 30 years of operations.
3. The third scenario evaluates an offsite receptor beginning in the third trimester of pregnancy, with the receptor exposed to the full construction duration of 9.55 years and then 20.45 years of operations, for a total exposure duration of 30 years.
4. The fourth scenario evaluates future onsite receptors (residential and recreational) at Area D beginning in the third trimester of pregnancy, with receptors exposed to a construction duration of 1.69 years.
5. The fifth scenario evaluates onsite receptors (residential and recreational) beginning in the third trimester of pregnancy, at Area D, with receptors exposed to the full 30 years of operations.
6. The sixth scenario evaluates onsite receptors (residential and recreational) beginning in the third trimester of pregnancy at Area D, with receptors exposed to 1.69 years of construction and 28.31 years of operations.
7. The seventh scenario evaluates onsite worker and recreational receptors at Area C, with receptors exposed to 5.87 years of construction.
8. The eighth scenario evaluates onsite worker and recreational receptors at Area C, with receptors exposed to 30 years of operations.
9. Lastly, the ninth scenario evaluates onsite worker and recreational receptors at Area C, with receptors exposed to 5.87 years of construction and 24.13 years of operations.

Refer to Appendix 3.3-1 for the risk calculations and additional assumptions.

[54] Office of Environmental Health Hazard Assessment. 2015. *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments.* February. Available: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf. Accessed: April 15, 2021.

Impacts and Mitigation Measures

Impact AQ-1: Consistency with the Applicable Air Quality Plan. The Project would not conflict with or obstruct implementation of the applicable air quality plan. (Less than Significant)

Construction and Operation

As described above under the *Regulatory Setting*, the current air quality attainment plan for the SFBAAB is BAAQMD's 2017 Clean Air Plan,[55] which defines control strategies to reduce emissions and ambient concentrations of air pollutants; safeguards public health by reducing exposure to air pollutants that pose the greatest health risk, with an emphasis on protecting the communities most heavily affected by air pollution; and reduces GHG emissions to protect the climate. According to the BAAQMD CEQA Guidelines, the determination of 2017 Clean Air Plan consistency should consider the following for project-level analyses.[56]

- Does a project support the primary goals of the 2017 Clean Air Plan?
- Does a project include applicable control measures from the 2017 Clean Air Plan?
- Does a project disrupt or hinder implementation of any 2017 Clean Air Plan control measure?

Each of these questions is addressed below for the Project.

Support of Clean Air Plan Goals

The primary goals of the 2017 Clean Air Plan are to (1) reduce emissions and decrease concentrations of harmful pollutants, (2) safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, and (3) reduce GHG emissions and protect the climate.

The Project includes numerous design features that would support regional attainment of the CAAQS and NAAQS. The Project would comply with the California Green Building Standards Code (CALGreen) (Title 24, Part 11), achieve Leadership in Energy and Environmental Design (LEED) Neighborhood Development (ND) Silver certification, and develop LEED ND Gold-certified offices and LEED Silver-certified residences. The Project would also employ other sustainability measures that would achieve a 30 percent reduction in energy use from the LEED v4 baseline, reduce potable water use by 30 percent compared with the LEED v4 baseline, and divert 65 percent of construction waste from landfills. The Project would convert much of the current hardscape into open spaces, urban nature areas, recreational fields, gardens, plazas, and streetscapes that would promote stormwater management. All of these design features would help to reduce emissions, including GHG emissions; safeguard public health; and protect the climate. Therefore, based on the above analysis, the Project would support the primary goals of the 2017 Clean Air Plan.[57]

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[55] Bay Area Air Quality Management District. 2017a. *Final 2017 Clean Air Plan.* Adopted April 19. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed: February 2, 2023.

[56] Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act Air Quality Guidelines.* May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: February 2, 2023.

[57] Note that, as described in Section 3.1, *Land Use*, the Project would not be consistent with City General Plan goals and policies related to the jobs/housing balance, potentially resulting in secondary air quality impacts. Increases in air pollutant emissions related to Project-generated VMT are quantified and evaluated below under Impact AQ-2. This analysis evaluates the Project's consistency with the 2017 Clean Air Plan, based on BAAQMD guidance.

Include Applicable Clean Air Plan Control Measures

Control strategies in the Clean Air Plan include measures in the following categories: Stationary-Source Control Measures, Transportation Control Measures, Energy Control Measures, Building Control Measures, Agriculture Control Measures, Natural and Working Lands Control Measures, Waste Management Control Measures, and Water Control Measures. The Project's consistency with each of these strategies is discussed below.

Stationary-Source Control Measures

The stationary-source control measures, which are designed to reduce emissions from stationary sources such as metal processing facilities, cement kilns, refineries, and glass furnaces, are incorporated into rules adopted by BAAQMD and then enforced by BAAQMD permit and inspection programs. The Project would include 21 diesel-powered emergency generators, which would require a permit from BAAQMD to operate. As part of the permit review process, operation of the emergency generators would be required to comply with BAAQMD permitting requirements, which incorporate stationary-source control measures from the Clean Air Plan; therefore, the Project would be consistent with the stationary-source control measures of the Clean Air Plan through compliance with the current regulatory process.

Transportation Control Measures

As part of the Clean Air Plan, BAAQMD identifies transportation control measures to decrease emissions of criteria pollutants, TACs, and GHGs by reducing demand for motor vehicle travel, promoting efficient vehicles and transit service, decarbonizing transportation fuels, and electrifying motor vehicles and equipment. As described in Section 3.2, *Transportation*, the Project qualifies as a "transit-supportive project" and, thus, is exempt from a detailed VMT analysis. In addition to reducing demand for motor vehicle travel and promoting transportation efficiency, the Project would develop and implement a Transportation Demand Management (TDM) plan that would provide trip reduction measures to reduce emissions from vehicular traffic in and around the Project site. Finally, the Project would explore alternative transit methods, such as bicycle- and pedestrian-friendly streets, connections to existing bicycle networks and public transit, bicycle parking, showers and lockers, low-emission car-share systems, preferential carpool/vanpool parking, electric-vehicle charging stations, and TDM information.

The 2017 Clean Air Plan recognizes that community design dictates individual travel mode and that a key long-term control strategy for reducing emissions of criteria pollutants, TACs, and GHGs from motor vehicles is to channel future Bay Area growth into vibrant urban communities where goods and services are close at hand and people have a range of viable transportation options. To that end, the density of the Project would serve to reduce the physical footprint required to live, socialize, and work. By mixing residential, commercial, retail, and childcare uses, the Project would provide a community with amenities that would be in one place, thereby reducing emissions of criteria pollutants, TACs, and GHGs from vehicle trips to offsite locations. In addition, the Project site is adjacent to current and future transit lines as well as bicycle corridors that connect to the surrounding community, ensuring that future occupants on the Project site would have a range of viable transportation options.

Given the characteristics of the Project, it is clear that it would promote BAAQMD initiatives to reduce vehicle trips and VMT and increase the use of alternative means of transportation. Therefore, the Project would be consistent with the applicable transportation control measures of the Clean Air Plan.

Energy Control Measures

The Clean Air Plan also includes energy control measures, which are designed to reduce emissions of criteria air pollutants, TACs, and GHGs by decreasing the amount of electricity consumed in the Bay Area as well as the carbon intensity of electricity used by switching to less GHG-intensive fuel sources for electricity generation. Because these measures apply to electrical utility providers and local government agencies, not individual projects, the energy control measures of the Clean Air Plan are not applicable to the Project.

Although the energy control measures of the Clean Air Plan are not applicable to the Project, the Project would nonetheless support efforts to decrease electricity consumption by achieving a 30 percent reduction in energy use from the LEED v4 baseline through implementation of some or all of the following strategies:

- Using a low-energy building design;
- Optimizing building orientation and shading to block out unwanted direct sun in the summer, let in desirable solar gains in the winter, maximize daylighting, control glare, promote natural ventilation, and create comfortable outdoor spaces;
- Using light-colored or planted "cool roofs" to reduce heat gain;
- Using well-sealed, well-insulated façades;
- Providing natural light with glazing;
- Providing natural ventilation with operable windows;
- Using landscaping in the horizontal and vertical planes to mitigate the urban heat island effect and reduce building cooling loads;
- Using LED light fixtures;
- Using daylight and occupancy sensors;
- Employing smart building controls;
- Providing premium efficiency fans and pumps; and
- Supporting onsite renewable energy generation through installation of rooftop solar panels.

The Project aligns with applicable energy control measures in the Clean Air Plan, which are designed to reduce emissions of criteria air pollutants, TACs, and GHGs by decreasing electricity consumption and switching to less GHG-intensive fuel sources for electricity generation.

Building Control Measures

BAAQMD has the authority to regulate emissions from certain sources in buildings, such as boilers and water heaters, but has limited authority to regulate buildings themselves. Therefore, the strategies in the control measures for this sector focus on working with local governments that do have authority over local building codes to facilitate adoption of best management practices (BMPs) and policies related to GHGs. Therefore, the building control measures of the Clean Air Plan are not applicable to the Project.

Although the building control measures of the Clean Air Plan are not applicable to the Project, the Project would nonetheless support efforts to reduce emissions from buildings by complying with the CALGreen standards, achieving LEED ND Silver certification, and developing LEED ND Gold-certified offices and

LEED Silver-certified residences. The Project would thus be consistent with the applicable building control measures of the Clean Air Plan.

Agriculture Control Measures

The agriculture control measures are designed to reduce primarily emissions of methane. Because the Project would not include any agricultural activities, the agriculture control measures of the Clean Air Plan are not applicable to the Project.

Natural and Working Lands Control Measures

The natural and working lands control measures focus on increasing carbon sequestration on rangelands and wetlands. They also encourage local governments to adopt ordinances that promote the planting of urban trees. Because the Project would not directly disturb rangelands or wetlands, the natural and working lands control measures of the Clean Air Plan are not applicable to the Project.

Although the control measures of the Clean Air Plan regarding natural and working lands are not applicable to the Project, the Project would nonetheless support efforts to increase carbon sequestration through the planting of urban trees. There are currently 17 protected trees on the Project site. It is conservatively assumed that all existing trees at the Project site and along adjacent public rights of way would be removed. However, per City General Plan Policy 5.3.1-P10 and City Code Chapter 12.35, the Project Sponsor would be required to plant at least four 15-gallon trees to replace the protected dead trees and thirteen 24-inch box trees or twenty-six 15-gallon trees, or a combination of the two, to replace the protected living trees, thereby replacing the removed protected trees at a ratio of 2:1 for 24-inch box trees or 4:1 for 15-gallon trees, or a combination of 24-inch box and 15-gallon trees, and 1:1 for dead or dying trees. In addition to this, many other trees would be planted within the Project site. As a result, the Project would result in a net increase in the number of protected trees and support implementation of the control measures of the Clean Air Plan regarding natural and working lands.

Waste Management Control Measures

The waste management control measures focus on reducing or capturing methane emissions from landfills and composting facilities, diverting organic materials away from landfills, and increasing waste diversion rates through efforts to reduce, reuse, and recycle. The Project would divert 65 percent of construction waste from landfills through implementation of the following strategies:

- Using salvaged, recycled, and low-impact materials where appropriate;
- Sending materials for treatment and reuse rather than sending them to the landfill;
- Separating construction debris onsite to maximize recycling; and
- Encouraging verified debris diversion through audit or third-party certification.

Once operational, the Project would implement site-wide strategies to reduce waste generation, such as using reusable materials where possible, employing waste-pickup pricing schemes, implementing educational campaigns, and ensuring access to suitable segregated waste facilities. Moreover, a consolidated collection strategy would be implemented that would rely on sensors and smaller vehicles to move waste between buildings before pickup to reduce vehicle traffic for operational waste collection. Finally, the Project would reduce the amount of waste sent to the landfill by sorting it (e.g., for composting, recycling, or landfill), then recovering and treating the separated waste streams. Therefore, the Project would be consistent with the waste management control measures of the Clean Air Plan.

Water Control Measures

The water control measures focus on reducing emissions of criteria pollutants, TACs, and GHGs by encouraging water conservation, limiting GHG emissions from publicly owned treatment works, and promoting the use of biogas recovery systems. Because these measures apply to publicly owned treatment works and local government agencies, not individual projects, the water control measures are not applicable to the Project.

Although the water control measures of the Clean Air Plan are not applicable to the Project, the Project would nonetheless support water conservation efforts by achieving a 30 percent reduction, from the LEED baseline, in potable water usage through implementation of the following strategies:

- Using low-flow, low-flush plumbing fixtures;
- Using water-efficient landscaping (e.g., native and drought-resistant plants, tree canopies) and flow-through planters that use recycled water; and
- Using dual-plumbing systems in the commercial portion of the Project.

Moreover, the Project would reuse water onsite through implementation of the following strategies:

- Reducing stormwater runoff by using planted open spaces and in-street BMPs, such as flow-through planters; and
- Using recycled water provided by the South Bay Water Recycling (SBWR) program.

Based on the above analysis, the Project would support the applicable control measures identified in the 2017 Clean Air Plan to meet the plan's primary goals.

Disrupt or Hinder Implementation of 2017 Clean Air Plan Control Measures

As discussed above, the Project would incorporate a variety of sustainability design features to reduce air pollutant emissions associated with transportation, energy, buildings, waste generation, and water usage. As a result, the Project would not disrupt, delay, or otherwise hinder implementation of any applicable control measure from the 2017 Clean Air Plan. Rather, the Project would support and facilitate implementation.

Accordingly, the Project would not fundamentally conflict with the 2017 Clean Air Plan and would have a ***less-than-significant*** impact.

Impact AQ-2: Cumulatively Considerable Net Increase in Criteria Pollutants. The Project would result in a cumulatively considerable net increase in a criteria pollutant for which the Project region is classified as a nonattainment area under an applicable federal or State ambient air quality standard. (Significant and Unavoidable with Mitigation)

According to the BAAQMD CEQA Guidelines, to meet air quality standards for criteria air pollutant and air precursor impacts, the Project must not generate construction or operational emissions in excess of the thresholds shown in Table 3.3-5, above. The Project's construction and operational emissions are evaluated in this section.

Construction

Construction activities would generate emissions of criteria pollutants from the exhaust of off-road equipment, the exhaust of construction workers' vehicles and heavy-duty trucks traveling to and from the

Project site, the application of architectural coatings, and paving. Fugitive PM_{10} and $PM_{2.5}$ dust would also be generated during soil movement and disturbance (e.g., grading and excavation) as well as demolition. The amount generated on a daily basis would vary, depending on the intensity and types of construction activities occurring simultaneously. To evaluate the most conservative scenario, maximum daily emissions have been calculated to assess construction impacts. Maximum daily emissions typically occur during phases with the greatest intensity of construction and at times when multiple construction phases take place on the same day. With respect to criteria air pollutants, maximum daily emissions generated during Project construction are shown in Table 3.3-8 for the unmitigated scenario. Appendix 3.3-1 contains air quality modeling input and output parameters as well as modeling assumptions.

As shown in Table 3.3-8, below, maximum daily unmitigated emissions would exceed the BAAQMD NO_X thresholds during the 6 years of construction but would not exceed the thresholds for any other pollutants. The exceedances would not necessarily occur on every day of construction for 6 years; rather, emissions in these 6 calendar years would exceed the thresholds on days when the worst-case scenario would occur. Regardless, the construction impact of the Project would be ***significant***. In addition, BAAQMD's CEQA Guidelines consider fugitive dust impacts to be significant prior to the application of BMPs to control dust. If BMPs are not implemented, then dust impacts would also be ***significant***.

Table 3.3-8. Estimated Maximum Daily Construction Emissions of Criteria Air Pollutants and Precursors

	Maximum Daily Emissions (lb/day)[a,b]					
Construction Year	**ROG**	**NO_X**	**PM_{10} Fugitive Dust**	**PM_{10} Exhaust**	**$PM_{2.5}$ Fugitive Dust**	**$PM_{2.5}$ Exhaust**
Unmitigated Scenario[a]						
2025	3.7	47.9	11.9	1.5	3.7	1.4
2026	5.9	55.6	9.4	1.6	2.0	1.4
2027	26.1	54.8	11.1	1.5	2.9	1.4
2028	28.3	80.3	15.7	2.4	3.9	2.2
2029	13.7	98.4	29.4	2.6	7.0	2.4
2030	13.7	98.4	29.4	2.8	7.0	2.6
2031	36.4	109.2	29.5	3.1	6.5	2.8
2032	32.2	55.4	9.6	1.8	2.1	1.7
2033	24.7	45.7	7.6	1.6	1.6	1.5
2034	24.7	16.8	0.8	0.6	0.2	0.5
Maximum Daily Emissions for All Years	36.4	109.2	29.5	3.1	7.0	2.8
BAAQMD Significance Thresholds	54	54	**n/a**	82	**n/a**	54
Exceeds Threshold?	**No**	**Yes**	**n/a**	**No**	**n/a**	**No**

Construction Year	Maximum Daily Emissions (lb/day)[a,b] ROG	NO_X	PM_{10} Fugitive Dust	PM_{10} Exhaust	$PM_{2.5}$ Fugitive Dust	$PM_{2.5}$ Exhaust
Mitigated Scenario[b]						
2025	0.9	18.5	9.6	0.3	2.8	0.3
2026	3.2	28.8	9.3	0.5	2.0	0.5
2027	22.5	20.0	9.1	0.4	2.3	0.4
2028	23.3	39.4	13.7	0.6	3.3	0.6
2029	7.6	43.0	27.5	0.9	6.4	0.9
2030	7.7	43.0	27.5	0.9	6.4	0.9
2031	31.1	52.5	29.5	1.1	6.5	1.1
2032	28.1	27.3	9.6	0.6	2.1	0.6
2033	23.7	22.7	7.6	0.4	1.6	0.4
2034	23.7	9.4	0.8	0.2	0.2	0.2
Maximum Daily Emissions for All Years	**31.1**	**52.5**	**29.5**	**1.1**	**6.5**	**1.1**
BAAQMD Significance Thresholds	54	54	**n/a**	82	**n/a**	54
Exceeds Threshold?	**No**	**No**	**N/A**	**No**	**N/A**	**No**

Source: Appendix 3.3-1.

Notes:

Exceedances are underlined.

lb/day = pounds per day; ROG = reactive organic gases; NO_X = nitrogen oxide; PM_{10} = particulate matter with an aerodynamic diameter of 10 microns or less; $PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 or less; n/a = BAAQMD has not developed a mass emission threshold for this pollutant

[a] BAAQMD construction thresholds for PM_{10} and $PM_{2.5}$ evaluate only exhaust emissions.

[b] The mitigated scenario includes BAAQMD's BMPs to reduce dust and require the use of off-road equipment fitted with Tier 4 Final engines.

MITIGATION MEASURES. Mitigation Measure AQ-2.1 would be implemented to reduce the Project's NO_X emissions by requiring EPA Tier 4 Final diesel engines. As shown in Table 3.3-8, for the mitigated scenario, implementation of Mitigation Measure AQ-2.1 (i.e., the requirement for EPA Tier 4 Final diesel engines) would reduce construction emissions of NO_x to a level below the BAAQMD threshold. In addition, Mitigation Measure AQ-2.2 would be incorporated to ensure that BAAQMD BMPs, as well as additional recommended construction-related mitigation measures, would be implemented during Project construction. BMPs would be required and implemented to reduce impacts from construction-related fugitive dust emissions, including any cumulative impacts. Therefore, construction of the Project would result in an impact that would be ***less than significant with mitigation*** (i.e., with implementation of Mitigation Measures AQ-2.1 and AQ-2.2).

AQ-2.1: Use Clean Diesel-Powered or Electric Equipment during Construction to Control Construction-Related Emissions. The Project Sponsor shall ensure that all off-road diesel-powered equipment greater than 50 horsepower used during construction shall be equipped with EPA-approved Tier 4 Final engines or cleaner[58] to reduce exhaust $PM_{2.5}$ emissions. The construction contractor

[58] Cleaner engine technology includes electric equipment and CARB Tier 5 engine standards, which are expected to begin in 2028 (CARB n.d.).

shall submit evidence of the use of EPA-approved Tier 4 Final engines or cleaner to the City of Santa Clara prior to the commencement of Project construction activities.

AQ-2.2: Implement BAAQMD Basic Construction Mitigation Measures to Reduce Dust Emissions. The Project Sponsor shall require all construction contractors to implement the BAAQMD Basic Construction Mitigation Measures as well as additional construction-related mitigation measures recommended by BAAQMD.[59] The emissions reduction measures shall include, at a minimum, all of the items listed below. The Project Sponsor shall provide documentation to the City of Santa Clara that the Basic Construction Mitigation Measures, as well as any additional measures recommended by BAAQMD, have been reflected in all construction contracts prior to the commencement of Project construction activities.

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, unpaved access roads) shall be watered at least three times per day to maintain a minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or a moisture probe.
- All haul trucks transporting soil, sand, or other loose material offsite shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- Paving of all roadways, driveways, and sidewalks shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading, unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure, Title 13, Section 2485, of the California Code of Regulations). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturers' specifications. All equipment shall be checked by a certified mechanic and determined to be in proper running condition prior to operation.
- A publicly visible sign shall be posted with the name and telephone number of the person to contact at the Lead Agency regarding dust complaints. That person shall respond and take corrective action within 48 hours. The air district's phone number shall also be visible to ensure compliance with applicable regulations.

Operation

Long-term operational emissions would be caused by vehicle trips and area sources (e.g., cleaning supplies, architectural coatings, landscape maintenance equipment). In addition, stationary-source emissions would result from intermittent use of 21 diesel-powered emergency generators, which were conservatively assumed to be tested 50 hours per year. As noted above, it was assumed that four generators would operate for 2 hours on the same day. As previously described, the Project may use natural gas onsite for R&D/lab space if demonstrated to be consistent with the City's reach code; therefore, criteria pollutant emissions associated with the Project's potential onsite consumption of

[59] Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act, Air Quality Guidelines*. May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: February 2, 2023.

natural gas are included in the emissions estimates provided below. In addition, the existing uses on the Project site that generate emissions would be removed with implementation of the Project. As such, the net effect of the Project would be the difference between existing uses and Project uses. Net Project emissions are calculated by subtracting existing-year 2018 operational criteria pollutant emissions from full-build-out-year 2034 conditions.[60]

Estimated unmitigated daily operational emissions for existing-year 2018 and full-build-out-year 2034, as well as net emissions, are presented in Table 3.3-9 and compared to BAAQMD's recommended mass emission thresholds. Appendix 3.3-1 contains the assumptions used in the modeling as well as air quality emissions calculations.

As shown in Table 3.3-9, below, operation of the Project would generate levels of ROG, NO_X, PM_{10}, and $PM_{2.5}$ that would exceed the applicable BAAQMD mass emissions thresholds. Therefore, unmitigated operation of the Project would result in a cumulatively considerable net increase in criteria air pollutants for which the SFBAAB is designated as a nonattainment area with respect to the federal or State ambient air quality standards, resulting in a ***significant*** impact.

Table 3.3-9. Estimated Maximum Daily Operational Emissions (Existing Conditions, Project Uses, and Net Emissions)

Condition and Emissions Source	Maximum Daily Emissions (lb/day)			
	ROG	**NO_X**	**PM_{10}[a]**	**$PM_{2.5}$[a]**
Existing Uses				
Area Sources	1.4	< 0.1	—	—
Energy Sources	< 0.1	0.5	< 0.1	< 0.1
Total – Existing Uses	**1.4**	**0.5**	**< 0.1**	**<0.1**
Project Build-out				
Mobile Sources	90.2	71.5	247.0	63.2
Area Sources	187.0	3.6	0.6	0.5
Energy Sources	< 0.1	< 0.1	< 0.1	< 0.1
Stationary Sources	15.4	43.1	2.3	2.3
Total – Project	**292.6**	**118.2**	**249.9**	**65.9**
Net Emissions	**291.2**	**117.7**	**249.8**	**65.9**
BAAQMD Significance Threshold	54	54	82	54
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**Yes**

Notes:
Modeling files provided in Appendix 3.3-1. Exceedances are underlined.
Individual rows may not add up to the totals shown because of rounding.
lb/day = pounds per day; ROG= reactive organic gases; NO_X = nitrogen oxide; PM_{10} = particulate matter no more than 10 microns in diameter; $PM_{2.5}$ = particulate matter no more than 2.5 microns in diameter
a. BAAQMD operational thresholds for PM_{10} and $PM_{2.5}$ include both fugitive dust and exhaust emissions.

[60] As noted above under *Methods for Analysis*, it was assumed that mobile-source emissions from existing uses would be zero because of the uncertainty regarding the vacancy of the uses and the unavailability of data for trip generation rates and VMT associated. This is a conservative assumption because it is known that mobile-source emissions exist for current operations on the Project site. Other existing sources of operational emissions, including area and energy sources, were subtracted from full-build-out-year 2034 emissions.

MITIGATION MEASURES. Implementation of Mitigation Measures AQ-2.3 through AQ-2.6 would reduce operational ROG, NO_X, PM_{10}, and $PM_{2.5}$ emissions but not to a less-than-significant level. Mitigation Measures AQ-2.3 and AQ-2.4 would require the Project Sponsor to use architectural coatings and cleaning supplies with a low volatile-organic-compound (VOC) content for all Project buildings, thereby reducing fugitive emissions of ROG throughout operations. Mitigation Measure AQ-2.5 would require the Project Sponsor to replace gas-powered landscape equipment with zero-emission landscape equipment, thereby reducing emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ by eliminating the use of internal-combustion engines for landscaping activities. Mitigation Measure AQ-2.6 would require the Project Sponsor to install EPA Tier 4 Final stationary emergency generators, if commercially available in a timely manner. EPA Tier 4 Final stationary emergency generators would reduce ROG, NO_X, PM_{10}, and $PM_{2.5}$ emissions; however, the emissions modeling assumes the use of Tier 3 generators because of uncertainties in the availability of Tier 4 generators.

Mitigated emissions are estimated in Table 3.3-10, which shows that net mitigated ROG, NO_X, PM_{10}, and $PM_{2.5}$ emissions would exceed the applicable BAAQMD thresholds. Most of the emissions that contribute to the exceedance in ROG emissions result from the volume of consumer products used, which is dependent on the size of a project. Larger projects have more people who use more consumer products, such as hair spray, deodorant, cleaning products, etc., than smaller projects but are subject to the same mass emissions threshold. In addition, coatings, such as paints, also contribute to the ROG exceedance. The City of Santa Clara and Project Sponsor have minimal control over what consumer products users purchase, and there are no additional mitigation measures to reduce ROG emissions from consumer products.

The other main contributor to ROG emissions, as well as NO_X, PM_{10}, and $PM_{2.5}$, is travel to and from the Project site by vehicles. The ROG and NO_x exceedances are from vehicle exhaust; the PM_{10} and $PM_{2.5}$ exceedances are primarily from road dust that gets resuspended by vehicle movement. As described under Impact AQ-1, the Project would reduce motor vehicle travel by locating a high-density, mixed-use development in an infill and transit-rich location, thereby promoting transportation efficiency, implementing a TDM plan, and exploring alternative transit methods. Nonetheless, the high-density aspect of the Project would lead to emissions from vehicles traveling to and from the site, emissions that would represent a large portion of the Project's ROG, NO_X, PM_{10}, and $PM_{2.5}$ emissions. There are no additional onsite mitigation measures to reduce emissions from vehicle trips. Therefore, even with implementation of mitigation measures, operation of the Project would result in a cumulatively considerable net increase in criteria air pollutants for which the SFBAAB is designated as a nonattainment area with respect to the federal or State ambient air quality standards. This impact would be ***significant and unavoidable with mitigation.***

Table 3.3-10. Estimated Net Mitigated Maximum Daily Operational Emissions (2034)

Condition and Emissions Source	Maximum Daily Emissions (lb/day)			
	ROG	NO_X	PM_{10}[a]	$PM_{2.5}$[a]
Existing Uses				
Area Sources	1.4	< 0.1	—	—
Energy Sources	0.0	0.5	< 0.1	< 0.1
Total – Existing Uses	1.4	0.5	< 0.1	< 0.1
Project Build-out				
Mobile Sources	90.2	71.5	247.0	63.2
Area Sources	108.7	—	—	—
Energy Sources	< 0.1	< 0.1	< 0.1	< 0.1
Stationary Sources	1.4	35.1	1.4	1.2
Total – Project	200.2	106.6	248.4	64.4
Net Emissions	**198.8**	**106.1**	**248.3**	**64.4**
BAAQMD Significance Threshold	54	54	82	54
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**Yes**

Notes:
Modeling files provided in Appendix 3.3-1. Exceedances are underlined.
Individual rows may not add up to the totals shown because of rounding.
lb/day = pounds per day; ROG= reactive organic gases; NO_X = nitrogen oxide; PM_{10} = particulate matter no more than 10 microns in diameter; $PM_{2.5}$ = particulate matter no more than 2.5 microns in diameter
[a] BAAQMD operational thresholds for PM_{10} and $PM_{2.5}$ include both fugitive dust and exhaust emissions.

AQ-2.3: *Require Low-VOC Coatings during Project Construction and Operation.* The Project Sponsor shall require contractors, as a condition of contract, to reduce construction-related fugitive ROG emissions by ensuring that low-VOC coatings with a VOC content of 50 grams per liter or less are used during construction and operation. For construction coatings, prior to permit issuance, the Project Sponsor shall submit evidence to the City of Santa Clara regarding the use of low-VOC coatings.

AQ-2.4: *Use Low-VOC Cleaning Supplies.* The Project Sponsor shall provide educational resources for residential and commercial tenants concerning zero- or low-VOC cleaning products. Prior to receipt of any certificate of final occupancy, the Project Sponsor shall work with the City of Santa Clara to develop the electronic correspondence to be distributed by email to new residential and commercial tenants regarding a requirement to purchase cleaning products that generate less than the typical VOC emissions.

AQ-2.5: *Replace Gas-Powered Landscape Equipment with Zero-Emission Landscape Equipment.* The Project Sponsor shall provide educational resources for tenants concerning zero-emission landscape equipment. The Project Sponsor, as a condition of contract, shall require all tenants to use only electric landscaping equipment throughout Project operation to reduce ROG, NO_X, PM_{10}, and $PM_{2.5}$ emissions. By the time the Project is operational, new internal-combustion engine landscaping equipment will not be available for purchase in California; thus, electric landscaping equipment will be the only commercially available landscaping equipment for purchase.

AQ-2.6: EPA Tier 4 Final Stationary Emergency Generators. The Project Sponsor shall require contractors or lessees, as a condition of contract, to install EPA Tier 4 Final stationary emergency generators, if commercially available at any point before occupancy. If Tier 4 Final emergency generators are not commercially available before occupancy, the Project Sponsor and contractor shall install Tier 3 emergency generators. Prior to occupancy permit issuance, the Project Sponsor shall submit evidence to the City regarding the use of Tier 4 Final emergency generator, if commercially available, or Tier 3 emergency generators.

Construction plus Operations

For purposes of this analysis, it is assumed that construction would overlap with Project operations because the Project would be constructed over a period of nearly 10 years. Specifically, Project construction would still be occurring in 2029 through 2031, when Area C would be operational; in 2032, when Areas C and B would be operational; and in 2033, when Areas, C, B, and D would be operational. In years when construction would generate the highest emissions and coincide with Project operations (2031, 2032, and 2033), construction emissions were combined with operational emissions to quantify a comprehensive estimate of the Project's total emissions. This analysis conservatively assumes that the buildings constructed in each year of the construction program would be occupied and fully operational upon completion. This assumption is conservative because occupancy and operation of each phase would most likely not occur immediately after the buildings are constructed. Combined maximum daily construction and operational emissions were compared with maximum daily emissions thresholds, as shown in Table 3.3-11 and Table 3.3-12. Appendix 3.3-1 contains detailed assumptions as well as pollutant emissions calculations.

Table 3.3-11. Estimated Unmitigated Maximum Daily Construction plus Operational Emissions of Criteria Air Pollutants and Precursors

	Maximum Daily Emissions (lb/day)[a]			
Construction Year	**ROG**	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
2031				
Construction	36.4	109.2	32.5	9.3
Operation	67.8	59.7	52.8	15.3
Combined Total	104.2	168.9	85.3	24.6
2032				
Construction	7.4	45.7	10.1	3.1
Operation	139.0	82.8	129.0	34.9
Combined total	146.4	128.5	139.1	38.0
2033				
Construction	24.7	28.0	7.9	2.3
Operation	208.0	94.0	171.0	45.9
Combined Total	232.7	122.0	178.9	48.2
Maximum Daily Emissions for All Years	232.7	168.9	178.9	48.2
BAAQMD Significance Thresholds	54	54	82	54
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**No**

Source: Modeling files provided in Appendix 3.3-1. Exceedances are underlined.
Totals may not add up because of rounding.
lb/day = pounds per day; ROG= reactive organic gases; NO_X = nitrogen oxide; PM_{10} = particulate matter no more than 10 microns in diameter; $PM_{2.5}$ = particulate matter no more than 2.5 microns in diameter
[a.] BAAQMD operational thresholds for PM_{10} and $PM_{2.5}$ include both fugitive dust and exhaust emissions.

Table 3.3-12. Estimated Mitigated Maximum Daily Construction plus Operational Emissions of Criteria Air Pollutants and Precursors

	Maximum Daily Emissions (lb/day)[a]			
Construction Year	**ROG**	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
2031				
Construction	31.1	52.5	30.6	7.6
Operation	39.5	51.6	51.8	14.1
Combined Total	70.6	104.1	82.4	21.7
2032				
Construction	4.4	22.7	9.4	2.4
Operation	92.2	74.7	127.4	33.6
Combined total	96.6	97.4	136.8	36.0
2033				
Construction	23.7	13.3	7.3	1.8
Operation	146.3	85.9	170.4	44.5
Combined Total	170.0	99.2	177.7	46.3
Maximum Daily Emissions for All Years	170.0	104.1	177.7	46.3
BAAQMD Significance Thresholds	54	54	82	54
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**No**

Source: Modeling files provided in Appendix 3.3-1. Exceedances are underlined.
Totals may not add up because of rounding.
lb/day = pounds per day; ROG= reactive organic gases; NO_X = nitrogen oxide; PM_{10} = particulate matter no more than 10 microns in diameter; $PM_{2.5}$ = particulate matter no more than 2.5 microns in diameter
[a] BAAQMD operational thresholds for PM_{10} and $PM_{2.5}$ include both fugitive dust and exhaust emissions.

As shown in Table 3.3-11, concurrent construction and operation of the Project would result in unmitigated ROG, NO_X, and PM_{10} emissions that would exceed BAAQMD's recommended thresholds. Thus, the Project would result in a *significant* impact during concurrent construction and operation.

As shown in Table 3.3-12, after implementation of Mitigation Measures AQ-2.1 through AQ-2.6, construction plus net operational emissions would remain in excess of BAAQMD's recommended threshold for ROG, NO_X, and PM_{10}. As described in the above discussion of the Project's mitigated operational emissions, most of the emissions that would contribute to the exceedance from ROG emissions would result from the volume of consumer products used. However, the City of Santa Clara and Project Sponsor have minimal control over what consumer products users purchase, and there are no additional mitigation measures to reduce ROG emissions from consumer products. Furthermore, vehicles traveling to and from the Project site represent a large portion of the Project's ROG, NO_x, and PM_{10} emissions. Aside from the Project's transportation-efficient design features, TDM plan, and strategies to encourage alternative methods of transportation, there are no onsite mitigation measures to reduce the number of vehicle trips to and from the site. Therefore, mitigated construction plus operation of the Project would result in a cumulatively considerable net increase in criteria air pollutants for which the SFBAAB is designated as a nonattainment area with respect to the federal or State ambient air quality standards. This impact would be ***significant and unavoidable with mitigation***.

Impact AQ-3: Substantial Pollutant Concentrations. The Project would expose sensitive receptors to substantial pollutant concentrations. (Significant and Unavoidable with Mitigation)

Construction and Operation

Sensitive land uses are generally considered to include those uses where an exposure to pollutants could result in health-related risks for sensitive individuals. The nearest offsite sensitive land uses are the residences located west of the Project site. Onsite residential receptors would occupy Project buildings as the buildings are completed and, therefore, would also be considered sensitive receptors.

With respect to health risks, the primary pollutants of concern for sensitive receptors are criteria pollutants—specifically, CO at intersection hot spots, asbestos, DPM, and localized $PM_{2.5}$. Each of these topics is analyzed in the paragraphs that follow.

Localized Carbon Monoxide Hot Spots

Continuous engine exhaust may elevate localized CO concentrations, resulting in hot spots. Receptors who are exposed to CO hot spots may have a greater likelihood of developing adverse health effects. CO hot spots are typically observed at heavily congested intersections where a substantial number of gasoline-powered vehicles idle for prolonged durations throughout the day. As discussed above, BAAQMD developed screening criteria to assist lead agencies in evaluating potential impacts from localized CO. The Project would not increase traffic volumes at any intersection to more than 44,000 vehicles per hour or 24,000 vehicles per hour in areas where vertical or horizontal mixing is limited, as specified by BAAQMD. However, several intersections would not be consistent with the applicable Congestion Management Program[61] (CMP) because the Project would cause an increase in vehicle delay times and LOS. As such, the Project would not meet the BAAQMD's CO hot-spot screening criteria. Therefore, the BAAQMD's screening criteria cannot be used.

A site-specific analysis has been conducted to determine if the Project could contribute to a localized CO hot spot and expose receptors to substantial CO concentrations or risks. Dispersion modeling was conducted to evaluate impacts using the CO protocol prepared by the California Department of Transportation.[62] CO impacts were analyzed at the intersection of Mission College Boulevard and Montague Expressway using peak-hour traffic volumes under cumulative-plus-Project conditions. This intersection, under cumulative conditions, has the highest peak-hour volumes out of all intersections under all conditions. Thus, if CO concentrations would not exceed the NAAQS and CAAQS at this worst-case intersection, then CO conditions at all other intersections would be below the standards. Table 3.3-13 presents Project CO concentrations summed with background CO levels and compared to the NAAQS and CAAQS.

As shown in Table 3.3-13, below, CO concentrations are not expected to contribute to any new localized violations of the 1-hour or 8-hour ambient federal or State air quality standards. Both 1-hour and 8-hour CO concentrations would be well below the NAAQS and CAAQS. Accordingly, sensitive receptors would not be exposed to substantial concentrations of CO. Therefore, this impact would be ***less than significant***.

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61 Valley Transportation Authority. 2021 *Congestion Management Program Document*. December. Available: https://www.vta.org/sites/default/files/2022-01/2021CMPDocumentV2_Reduced.pdf. Accessed: January 27, 2023.

62 California Department of Transportation. 1997. Transportation Project-Level Carbon Monoxide Protocol. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/co-protocol-searchable-a11y.pdf. Accessed: February 8, 2023.

Table 3.3-13. CO Concentrations at Worst-Case Intersection that Conflicts with the Congestion Management Program (parts per million)

Source	Receptor[a]	1-Hour[b] With-Project Conditions	8-hour[c] With-Project Conditions
Mission College Boulevard and Montague Expressway	1	2.73	2.23
	2	2.63	2.15
	3	2.63	2.15
	4	2.73	2.23
CAAQS		20	9.0
Exceed CAAQS?		No	No
NAAQS		35	9
Exceed NAAQS?		No	No

Source: See Appendix 3.3-1 for CO modeling outputs.

Notes:

CAAQS = California Ambient Air Quality Standards; NAAQS = National Ambient Air Quality Standards

a. Receptors are located at each of the four corners of the intersection. All intersections modeled have two intersecting roadways.

b. The average 1-hour background concentration between 2019 and 2021 was 1.7 parts per million

c. The average 8-hour background concentration between 2019 and 2021 was 1.4 parts per million.

Criteria Air Pollutants

Adverse health effects induced by regional criteria pollutants, such as O_3 precursors and PM, generated by the Project are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, the number and character of exposed individuals [e.g., age, gender]). O_3 precursors (ROG and NO_X) contribute to the formation of ground-borne O_3 on a regional scale. Emissions of ROG and NO_X generated in one area may not equate to a specific O_3 concentration in that same area. Similarly, some types of particulate pollution may be transported over long distances or formed through atmospheric reactions. As such, the magnitude and locations of specific health effects from exposure to increased O_3 or regional PM concentrations are the product of emissions generated by numerous sources throughout a region as opposed to a single individual project. Moreover, exposure to regional air pollution does not guarantee that an individual will experience an adverse health effect. As discussed above, there are large individual differences in the intensity of symptomatic responses to air pollutants. These differences are influenced, in part, by the underlying health condition of an individual, which cannot be known.

Models and tools have been developed to correlate regional criteria pollutant emissions to potential community health impacts. Although models are capable of quantifying O_3 and secondary PM formation and associated health effects, these tools were developed to support regional planning and policy analysis and have limited sensitivity to small changes in criteria pollutant concentrations induced by individual projects. However, given the Project's size in terms of the development footprint and level of pollutant emissions, a modeling analysis has been conducted to correlate Project emissions to health consequences and disclose the potential effects of Project implementation.

As discussed above, BAAQMD's regional thresholds consider existing air quality concentrations and attainment or nonattainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence that demonstrates there are known safe concentrations

of criteria pollutants. Although BAAQMD recognizes that air quality is a cumulative problem, it considers projects that generate criteria pollutant and O_3 precursor emissions that fall below the thresholds to be minor in nature; therefore, such projects would not adversely affect air quality to the extent that the health-protective NAAQS or CAAQS would be exceeded.

Regional emissions generated by a project could increase photochemical reactions and the formation of tropospheric O_3 and secondary PM, which, at certain concentrations, could lead to increased incidences of specific health consequences. The Project would result in ROG and NO_X emissions that would exceed the thresholds of significance; thus, the criteria pollutant applicable to potential health effects would be O_3 because ROG and NO_X are considered O_3 precursors that result in O_3 formation after being emitted. O_3 is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving ROG and NO_X in the presence of sunlight. In addition, the Project would also result in emissions of PM_{10} and $PM_{2.5}$ that would exceed the threshold of significance. Table 3.3-2, above, presents the typical sources and health effects from ROG, NO_X, PM_{10}, and $PM_{2.5}$.

Increases in various health consequences have been evaluated. These include incremental incidences of emergency room visits, hospital admissions, mortality, and acute myocardial infarction. The full health outcomes from the Project's emissions, as well as the methodology used and other details relevant to the analysis, are summarized in Appendix 3.3-2.

As shown in Appendix 3.3-2, annual mean $PM_{2.5}$-related health effects attributed to Project-related increases in ambient air concentrations include asthma-related emergency room visits (0.97 incidence per year), cardiovascular-related emergency room visits (0.49 incidence per year), all-cause mortality (1.62 incidences per year), asthma-related hospital admissions (0.084 incidence per year), all cardiovascular-related hospital admissions (0.28 incidence per year), all respiratory-related hospital admissions (0.0317 incidence per year), and nonfatal acute myocardial infarction (up to 0.124 incidence per year for people aged 65 to 99). Annual mean O_3-related health effects attributed to Project-related increases in ambient air concentrations include respiratory-related hospital admissions (0.027 incidence per year), respiratory mortality (0.18 incidence per year), and asthma-related emergency room visits (0.27 incidence per year for ages 0 to 17 and 0.19 incidence per year for ages 18 to 99). For context, these incremental incidences are equal to or lower than 0.0014 percent of the background health incidences for the corresponding health endpoints. As a result, the analysis provided in Appendix 3.3-2 concludes that the estimated change in health effects from O_3 and $PM_{2.5}$ associated with the Project's additional emissions would be minimal relative to background incidences.

There are no BAAQMD-adopted thresholds for health endpoints resulting from a project's contribution to air pollution within the SFBAAB. However, given that the analysis of health outcomes resulting from the Project's additional emissions incorporates conservative assumptions, as described in Appendix 3.3-2, and concludes that evaluated health effects would be minimal relative to background incidences, health effects resulting from the Project's regional criteria pollutant emissions are thus considered ***less than significant***.[63]

Fugitive Dust

During grading and excavation associated with construction, localized fugitive dust would be generated. The amount of dust generated by a project is highly variable and dependent on the size of the disturbed

[63] Although the health effects resulting from the Project's regional criteria pollutant emissions would be less than significant, the Project's regional criteria pollutant mass emissions would be significant and unavoidable, even with mitigation, as described under Impact AQ-2.

area at any given time, the amount of activity, soil conditions, and meteorological conditions. BAAQMD's CEQA Guidelines consider dust impacts to be less than significant if BAAQMD's construction BMPs are employed to reduce such emissions. Because BAAQMD's Basic Construction Mitigation Measures would be implemented, per Mitigation Measure AQ-2.2, construction-related fugitive dust emissions would not expose receptors to substantial pollutant concentrations or risks. The impact would be ***less than significant.***

Toxic Air Contaminants

Diesel Particulate Matter and Localized $PM_{2.5}$

DPM is a carcinogen contained in the exhaust of diesel internal-combustion engines. Project-related construction activities would generate DPM (i.e. $PM_{2.5}$ exhaust from diesel vehicles)[64] from the use of off-road equipment and heavy-duty trucks. $PM_{2.5}$ exhaust and fugitive dust emissions would be generated from the use of off-road equipment, onsite soil movement, and on-road travel involving heavy-duty trucks and workers' vehicles.

Operational activities would generate DPM from the use of delivery trucks and other heavy vehicles traveling to and from the site as well as the testing of emergency generators. $PM_{2.5}$ exhaust and fugitive dust emissions would be generated by all vehicles (gasoline and diesel) and the testing of emergency generators. These activities could expose offsite receptors to incremental increases in health risks.

Health impacts from exposure to DPM include cancer risks and chronic non-cancer risks. The HRA for the Project includes an evaluation of annual concentrations of $PM_{2.5}$ from exhaust and fugitive dust sources.

As discussed in Impact AQ-2, unmitigated Project emissions would exceed BAAQMD regional thresholds for construction and operations, and mitigation would be required. Therefore, because mitigation would be required to reduce regional criteria pollutant emissions, only mitigated health risks for offsite and onsite receptors were analyzed. Table 3.3-14 presents the maximum mitigated health risks for offsite and onsite receptors under the nine scenarios discussed above in *Methods for Analysis*.

As shown in Table 3.3-14, below, there would be exceedances of the cancer risk threshold (Scenario 6) and $PM_{2.5}$ threshold (Scenarios 2, 3, 5, 6, and 9) for offsite sensitive receptors and future onsite receptors. For offsite receptors, cancer and non-cancer risks would not exceed the thresholds; however, $PM_{2.5}$ concentrations would exceed the threshold at offsite worker and recreational locations.

For future onsite receptors, only residential uses at Area D would experience a cancer risk above the threshold during the overlap of construction and operations. In addition, operation, as well as construction and operational overlap, would cause the $PM_{2.5}$ threshold to be exceeded for all onsite receptors. During the construction-only scenarios, $PM_{2.5}$ concentrations would not exceed the thresholds at any receptors.

The cancer risk threshold exceedance for onsite receptors is due to future residential receptors being exposed to DPM during construction and then to DPM during operations from generator testing and vehicle traffic for nearly 30 years. The primary cause of the $PM_{2.5}$ exceedance is the operation of vehicles as they travel to and from the site and generate fugitive $PM_{2.5}$ from re-suspended road dust.

[64] Per BAAQMD guidance, $PM_{2.5}$ exhaust is used as a surrogate for DPM.

Table 3.3-14. Estimated Mitigated Project-Level Health Risk Results from Modeled Scenarios

Offsite Receptor Type	Cancer Risk (cases per million)	Non-Cancer Chronic Risk	Annual $PM_{2.5}$ Concentrations ($\mu g/m^3$)
Scenario 1 – Construction Only (Offsite)			
Residential Receptors	1.70	0.0001	0.013
School Receptors	0.02	< 0.0001	0.0005
Worker Receptors	1.46	0.0023	0.056
Recreational Receptors	0.14	0.0001	0.006
BAAQMD Significance Threshold	10.0	1.0	0.3
Exceeds Threshold?	**No**	**No**	**No**
Scenario 2 – Operations Only (Offsite)			
Residential Receptors	0.93	0.0005	0.224
School Receptors	0.27	0.0002	0.135
Worker Receptors	0.30	0.0022	2.671
Recreational Receptors	0.19	0.0022	1.120
BAAQMD Significance Threshold	10.0	1.0	0.3
Exceeds Threshold?	**No**	**No**	**Yes**
Scenario 3 – Construction plus Operations (Offsite)			
Residential Receptors	1.83	0.0005	0.224
School Receptors	0.09	0.0002	0.135
Worker Receptors	1.71	0.0023	2.671
Recreational Receptors	0.19	0.0022	1.120
BAAQMD Significance Threshold	10.0	1.0	0.3
Exceeds Threshold?	**No**	**No**	**Yes**
Scenario 4 – Construction Only (Onsite Development Area D)			
Residential Receptors	7.76	0.004	0.040
Recreational Receptors	0.88	0.004	0.035
BAAQMD Significance Threshold	10.0	1.0	0.3
Exceeds Threshold?	**No**	**No**	**No**
Scenario 5 – Operations Only (Onsite Development Area D)			
Residential Receptors	5.13	0.0028	3.085
Recreational Receptors	0.95	0.0029	3.606
BAAQMD Significance Threshold	10.0	1.0	0.3
Exceeds Threshold?	**No**	**No**	**No**
Scenario 6 – Construction plus Operations (Onsite Development Area D)			
Residential Receptors	13.02	0.004	3.085
Recreational Receptors	1.47	0.004	3.606
BAAQMD Significance Threshold	10.0	1.0	0.3
Exceeds Threshold?	**Yes (resident receptors only)**	**No**	**Yes**
Scenario 7 – Construction Only (Onsite Development Area C)			
Worker Receptors	2.80	< 0.0001	0.15
Recreational Receptors	4.32	< 0.0001	0.16
BAAQMD Significance Threshold	10.0	1.0	0.3
Exceeds Threshold?	**No**	**No**	**No**

Offsite Receptor Type	Cancer Risk (cases per million)	Non-Cancer Chronic Risk	Annual $PM_{2.5}$ Concentrations ($\mu g/m^3$)
Scenario 8 – Operations Only (Onsite Development Area C)			
Worker Receptors	0.38	0.0029	3.295
Recreational Receptors	1.00	0.0029	3.302
BAAQMD Significance Threshold	10.0	1.0	0.3
Exceeds Threshold?	**No**	**No**	**Yes**
Scenario 9 – Construction plus Operations (Onsite Development Area C)			
Worker Receptors	3.51	0.0029	3.295
Recreational Receptors	4.82	0.0029	3.302
BAAQMD Significance Threshold	10.0	1.0	0.3
Exceeds Threshold?	**No**	**No**	**Yes**

Notes:
Exceedances are underlined.
$\mu g/m^3$ = micrograms per cubic meter; $PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 or less
a. For the construction-only scenario, the evaluation of cancer risk was modeled for an exposure duration with 1.29 years of construction. For the construction-plus-operations scenario, the operational risk was modeled for 28.71 years of operations. For the operations-only scenario, the risk was modeled for 30 years of operations.
b. Non-cancer health index and annual $PM_{2.5}$ concentrations were based solely on annual construction emissions.

Mitigation Measures AQ-2.1 and AQ-2.2 would reduce DPM and $PM_{2.5}$ concentrations by requiring clean diesel-powered or electric construction equipment and implementing BAAQMD basic construction mitigation measures, respectively. Mitigation Measure AQ-2.6 would reduce DPM and $PM_{2.5}$ concentrations through the use of Tier 4 emergency generators; however, because there is uncertainty regarding the availability of the generators, the analysis results reflect the use of Tier 3 emergency generators. In addition, because the Project would generate a relatively large number of daily vehicle trips, fugitive dust and exhaust emissions would result in a correspondingly large increase in $PM_{2.5}$ concentrations. There is no feasible mitigation to reduce $PM_{2.5}$ concentrations because of the nature of the emissions source (i.e., the large number of privately owned vehicles traveling on public roadways). The Project Sponsor has little control over this type of emissions source. Nonetheless, as described under Impact AQ-1, the Project would reduce the demand for motor vehicle travel by promoting transportation efficiency, implementing a TDM plan, and exploring alternative transit methods. Still, the health risks and $PM_{2.5}$ concentrations would exceed BAAQMD thresholds. There are no additional onsite mitigation measures that would reduce vehicle trips to and from the site. Thus, health risks and $PM_{2.5}$ concentrations would exceed BAAQMD thresholds after the incorporation of Mitigation Measures AQ-2.1, AQ-2.2, and AQ-2.6, and no further mitigation is available. Therefore, the Project would result in an impact that would be ***significant and unavoidable with mitigation*** with respect to health risks and $PM_{2.5}$.

Asbestos

Asbestos is a naturally occurring mineral that was previously used in building construction because of its heat resistance and strong insulating properties. Exposure to asbestos, however, has been shown to cause many disabling and fatal diseases, including lung cancer, mesothelioma, and pleural plaques. Demolition of the existing hardscape (asphalt and concrete) and buildings on the Project site may expose workers and nearby receptors to asbestos if the material was used during construction of the original hardscape and buildings. However, the Project would comply with BAAQMD Regulation 11, Rule 2, Asbestos, Demolition, Renovation, and Manufacturing. The purpose of this rule is to control emissions of asbestos

to the atmosphere during demolition and building renovation. Because the Project Sponsor would be required to control asbestos emissions according to BAAQMD regulations, receptors would not be exposed to substantial asbestos risks, and impacts associated with asbestos emissions would be ***less than significant.***

Impact AQ-4: Odor Impacts. The Project would not result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people. (Less than Significant)

Construction and Operation

Offensive odors rarely cause physical harm, but they can be unpleasant and lead to considerable distress among the public. This distress often generates citizen complaints to local governments and air districts. Land uses associated with odor complaints typically include sewage treatment plants, landfills, recycling facilities, manufacturing plants, and agricultural activities.[65] Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, and schools, warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, work sites, and commercial areas. The Project would include new receptors, but none of the above land uses would be located within 1 mile of the Project site.

Many sensitive receptors are within 1,000 feet of the Project site. As discussed above, the California Supreme Court has opined that impacts of the environment on projects are not subject to CEQA analysis, with limited exceptions. This general rule includes the impacts of existing odor-generating uses on future land uses. The Project does not propose any changes that would affect odor-generating facilities. Therefore, odor complaints regarding existing odor-generating facilities are not anticipated upon implementation of the Project.

Potential odor emitters during construction activities include diesel exhaust, asphalt paving, and the use of architectural coatings and solvents. Construction-related operations would be temporary and would not be likely to result in nuisance odors that would violate BAAQMD Regulation 7. Odors during operation could result from vehicle exhaust and the reapplication of architectural coatings. These odors would be limited to areas adjacent to the building. Although such brief exhaust- and paint-related odors may be considered adverse, they would not affect a substantial number of people. Given mandatory compliance with BAAQMD regulations, proposed construction and operational activities would not result in a significant level of objectionable odors. Therefore, odor impacts would be ***less than significant***.

Cumulative Impacts

Impact C-AQ-1: Cumulative Consistency with the Applicable Air Quality Plan. The Project, in combination with other foreseeable development in the vicinity, would not conflict with or obstruct implementation of the applicable air quality plan. (Less than Significant)

Construction and Operation

As described above under *Regulatory Setting*, the CAA requires an SIP or an air quality control plan to be prepared for areas where air quality violates the NAAQS. BAAQMD's 2017 Clean Air Plan is the current air

[65] California Air Resources Board. 2005. *Air Quality and Land Use Handbook*. Available: https://sfmohcd.org/sites/default/files/20%20-%20CARB%2C%20Air%20Quality%20and%20Land%20Use%20Handbook%202005.pdf. Accessed: February 2, 2023.

quality attainment plan for the SFBAAB.[66] The 2017 Clean Air Plan aims to improve air quality, protect public health, and protect the climate, thereby addressing a significant cumulative air quality impact in the air basin.

As discussed under Impact AQ-1, the Project would support the goals of BAAQMD's Clean Air Plan, would include all applicable control measures, and would not conflict with Clean Air Plan implementation. Because the 2017 Clean Air Plan aims to improve regional air quality in the air basin, the analysis and less-than-significant finding under Impact AQ-1 is inherently cumulative. Therefore, the Project's contribution to cumulative impacts would not be considerable. The impact would be ***less than significant***.

Impact C-AQ-2: Cumulatively Considerable Net Increase in Criteria Pollutants. The Project, in combination with other foreseeable development in the vicinity, would result in a cumulatively considerable net increase in a criteria pollutants for which the Project region is classified as a nonattainment area under an applicable federal or State ambient air quality standard. (Significant and Unavoidable with Mitigation)

Construction and Operation

As discussed above, BAAQMD's emissions thresholds (Table 3.3-5) represent the daily emissions that a project may generate before contributing to a cumulative impact on regional air quality. Therefore, exceedances of the BAAQMD project-level thresholds would be cumulatively considerable for project activities in the SFBAAB.

As discussed above in Impact AQ-2, the Project would exceed established BAAQMD regional construction and operational mass thresholds, even with mitigation incorporated. Specifically, the Project's construction-generated NO_X emissions, as well as operational ROG, NO_x, PM_{10}, and $PM_{2.5}$ emissions, would exceed applicable BAAQMD emissions thresholds before mitigation. With implementation of Mitigation Measure AQ-2.1, which requires the use of clean diesel-powered or electric construction equipment, and Mitigation Measure AQ-2.2, which requires implementation of BAAQMD basic construction mitigation measures to reduce dust emissions, the Project's construction-generated emissions would not exceed applicable BAAQMD emissions thresholds. However, even with the implementation of Mitigation Measures AQ-2.3 through 2.6, which require the use of coatings and cleaning supplies with low VOC content, zero-emission landscape equipment, and EPA Tier 4 Final stationary emergency generators, the Project's operational emissions of ROG, NO_X, PM_{10}, and $PM_{2.5,}$ as well as construction and operational overlap emissions of ROG, NO_X, and PM_{10}, would exceed BAAQMD mass emissions thresholds. Moreover, the use of consumer products and generation of vehicle trips to and from the Project site represent a large portion of the Project's operational ROG, NO_X, PM_{10}, and $PM_{2.5}$ emissions. There are no further mitigation strategies to reduce emissions from these activities.

Because the Project would exceed regional thresholds, which are inherently cumulative, the Project's criteria pollutant emissions would be cumulatively considerable, resulting in a cumulative impact that would be ***significant and unavoidable with mitigation***.

[66] Bay Area Air Quality Management District. 2017a. *Final 2017 Clean Air Plan.* Adopted April 19. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed: February 2, 2023.

Impact C-AQ-3: Cumulative Substantial Pollutant Concentrations. The Project, in combination with other foreseeable development in the vicinity, would expose sensitive receptors to substantial pollutant concentrations. (Significant and Unavoidable with Mitigation)

Construction and Operation

According to BAAQMD's CEQA Guidelines, combined risk levels should be determined for all TAC sources within 1,000 feet of a project site and compared to BAAQMD's cumulative health risk thresholds.[67]

Existing TAC sources and the Project's construction and operational emissions could contribute to a cumulative health risk for sensitive receptors near the Project site. BAAQMD's inventory of stationary health risks was used to estimate the combined level of health risk from existing stationary sources in combination with the Project's contributions. Geographic information system (GIS) raster files provided by BAAQMD were used to estimate roadway and railway emissions within 1,000 feet of the Project site.[68] The methods used to estimate Project-related TAC emissions and health risks are described above in *Methods for Analysis*, with further detail in Impact AQ-2, Impact AQ-3, and Appendix 3.3-1. The results of the cumulative impact assessment are summarized in Tables 3.3-15 through Table 3.3-18 for onsite and offsite receptors. In addition, as shown in Table 3-1 of Chapter 3, *Introduction to Analysis*, the Patrick Henry Specific Plan is a future project that would allow up to 12,000 net new residential units as well as open space and public facilities that would result in additional sensitive receptors being located approximately 100 feet from the southern border of the Project site.[69] The area where the Patrick Henry Specific Plan would be constructed currently comprises office uses; health risks at these office uses were modeled for the project-level analysis in Impact AQ-3, above. Although the project-level analysis evaluates sensitive receptors as they exist under existing conditions, this cumulative impact analysis evaluates future residential and recreational sensitive receptors that may be present under cumulative conditions. The residential and recreational receptors located at the Patrick Henry Specific Plan site are discussed under Scenarios 10 and 11. To determine significance, all receptors, including the future Patrick Henry Specific Plan receptors, are evaluated with respect to BAAQMD's cumulative thresholds of significance.

The tables show the health risk values for the Project's maximally affected receptors and the health risk contributions from existing stationary, roadway, and rail sources within 1,000 feet of the Project site. The sum of Project health risk values and existing background health risk values was compared to BAAQMD cumulative thresholds. Additional data on individual background contributions from existing sources are included in Appendix 3.3-1.

As shown in Tables 3.3-15 through 3.3-18, below, health risks associated with existing stationary, roadway, and railway sources in combination with the Project would exceed BAAQMD cumulative thresholds. Specifically, operational $PM_{2.5}$ concentrations, as well as construction and construction and operational overlap, would exceed the BAAQMD $PM_{2.5}$ cumulative threshold for several types of receptors (i.e., residential, worker, recreational). No cumulative thresholds would be exceeded at any school receptors. In addition, no cancer or non-cancer risk cumulative thresholds would be exceeded at any

[67] Ibid.

[68] Winkel, Jackie. Principal environmental planner, Bay Area Air Quality Management District. April 12, 2018—email to Darrin Trageser, ICF, Sacramento, CA, regarding GIS files containing data on background health risks from railroads, major roads, and highway sources within BAAQMD jurisdiction.

[69] The Patrick Henry Specific Plan may include retail uses within the Urban Village/Center Mixed-Use land use designation. The air dispersion modeling, health risk analysis, and cumulative analysis assumed that these receptors were residential to model the worst-case health risk impact.

receptors. However, the cumulative $PM_{2.5}$ concentration threshold would be exceeded. As discussed under Impact AQ-3, there is no further mitigation to reduce the impact.

Table 3.3-15. Maximum Cumulative Health Risks – Residential Receptors

	Maximum Affected Residential Receptor		
Source	**Cancer Risk (per million)**	**Non-Cancer Chronic Hazard Index**	**Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)**
Scenarios 1 and 3 (Construction Only and Construction plus Operations) – Offsite			
Existing Sources			
Stationary Sources	22.2	0.04	0.14
Roadway Sources	13.9	—	0.33
Rail Sources	5.0	—	0.01
Existing Total	41.1	0.04	0.48
Project Sources			
Project Construction (9.55-year exposure duration)	1.70	< 0.01	0.01
Project Operations (20.45-year exposure duration)	1.83	< 0.01	0.22
Existing plus Project			
Existing plus Construction plus Operations	44.6	0.04	0.72
Existing plus Construction	42.8	0.04	0.49
BAAQMD Cumulative Thresholds	100	10	0.8
Exceeds Thresholds?	**No**	**No**	**No**
Scenario 2 (Operations Only) – Offsite			
Existing Sources			
Stationary	22.2	0.04	0.14
Roadway	13.9	—	0.33
Rail	5.0	—	0.01
Existing Total	41.1	0.04	0.48
Project Sources			
Project Operations (30-year exposure duration)	0.93	< 0.01	0.22
Existing plus Project			
Existing plus Operations	42.0	0.04	0.70
BAAQMD Cumulative Thresholds	100	10	0.8
Exceeds Thresholds?	**No**	**No**	**No**
Scenarios 4 and 6 (Construction Only and Construction plus Operations) – Onsite			
Existing Sources			
Stationary Sources	22.2	0.04	0.14
Roadway Sources	14.3	—	0.33
Rail Sources	5.3	—	0.01
Existing Total	41.8	0.04	0.48

Source	Maximum Affected Residential Receptor: Cancer Risk (per million)	Non-Cancer Chronic Hazard Index	Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Project Sources			
Project Construction (1.69-year exposure duration)	7.8	< 0.01	0.04
Project Operations (28.31-year exposure duration)	13.0	< 0.01	3.11
Existing plus Project			
Existing plus Construction plus Operations	62.6	0.05	3.61
Existing plus Construction	49.6	0.04	0.52
BAAQMD Cumulative Thresholds	100	10.0	0.8
Exceeds Thresholds?	**No**	**No**	**Yes**
Scenario 5 (Operations Only) – Onsite			
Existing Sources			
Stationary	22.2	0.04	0.14
Roadway	14.3	—	0.33
Rail	5.3	—	0.01
Existing Total	41.8	0.04	0.48
Project Sources			
Project Operations (30-year exposure duration)	5.13	< 0.01	3.08
Existing plus Project			
Existing plus Operations	46.9	0.04	3.56
BAAQMD Cumulative Thresholds	100	10.00	0.8
Exceeds Thresholds?	**No**	**No**	**Yes**
Scenarios 10 (Construction Only and Construction plus Operations) – Offsite with Patrick Henry Specific Plan Receptors			
Existing Sources			
Stationary Sources[a]	22.2	0.04	0.14
Roadway Sources	17.2	—	0.39
Rail Sources	5.8	—	0.01
Existing Total	45.4	0.04	0.67
Project Sources			
Project Construction (9.55-year exposure duration)	17.5	< 0.01	0.06
Project Operations (20.45-year exposure duration)	2.2	< 0.01	0.43
Existing plus Project			
Existing plus Construction plus Operations	64.9	0.04	1.16
Existing plus Construction	62.7	0.04	0.73
BAAQMD Cumulative Thresholds	100	10	0.8
Exceeds Thresholds?	**No**	**No**	**Yes**

Source	Maximum Affected Residential Receptor: Cancer Risk (per million)	Non-Cancer Chronic Hazard Index	Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Scenario 11 (Operations Only) – Offsite with Patrick Henry Specific Plan Receptors			
Existing Sources			
Stationary[a]	22.2	0.04	0.14
Roadway	17.1	—	0.52
Rail	6.1	—	0.01
Existing Total	45.4	0.04	0.67
Project Sources			
Project Operations (30-year exposure duration)	7.9	< 0.01	1.67
Existing plus Project			
Existing plus Operations	53.3	0.05	<u>2.34</u>
BAAQMD Cumulative Thresholds	100	10	0.8
Exceeds Thresholds?	**No**	**No**	**Yes**

Notes: Exceedances are underlined.

a. Scenario 10 and Scenario 11 conservatively analyzed the stationary-source health risks from Cyxtera Communications, LLC, which is located within the Patrick Henry Specific Plan area but would not be operational during build-out of the Patrick Henry Specific Plan.

Table 3.3-16. Maximum Cumulative Health Risks – Worker Receptors

Source	Maximum Affected Worker Receptor: Cancer Risk (per million)	Non-Cancer Chronic Hazard Index	Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Scenarios 1 and 3 (Construction Only and Construction plus Operations) – Offsite			
Existing Sources			
Stationary Sources	22.2	0.04	0.14
Roadway Sources	13.7	—	0.33
Rail Sources	5.1	—	0.01
Existing Total	41.0	0.04	0.48
Project Sources			
Project Construction (9.55-year exposure duration)	1.46	< 0.01	0.06
Project Operations (28.71-year exposure duration)	1.71	< 0.01	<u>2.77</u>
Existing plus Project			
Existing plus Construction plus Operations	45.9	0.05	<u>3.31</u>
Existing plus Construction	42.5	0.05	0.65
BAAQMD Cumulative Thresholds	100	10	0.8
Exceeds Thresholds?	**No**	**No**	**Yes**

Source	Maximum Affected Worker Receptor: Cancer Risk (per million)	Maximum Affected Worker Receptor: Non-Cancer Chronic Hazard Index	Maximum Affected Worker Receptor: Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Scenario 2 (Operations Only) – Offsite			
Existing Sources			
Stationary	22.2	0.04	0.14
Roadway	13.7	—	0.33
Rail	5.1	—	0.01
Existing Total	41.0	0.04	0.48
Project Sources			
Project Operations (30-year exposure duration)	0.30	<0.01	2.77
Existing plus Project			
Existing plus Operations	41.3	0.04	3.21
BAAQMD Cumulative Thresholds	100	10	0.8
Exceeds Thresholds?	**No**	**No**	**Yes**
Scenarios 7 and 9 (Construction Only and Construction plus Operations) – Onsite			
Existing Sources			
Stationary Sources	22.2	0.04	0.14
Roadway Sources	15.2	—	0.35
Rail Sources	5.5	—	0.01
Existing Total	42.9	0.04	0.5
Project Sources			
Project Construction (5.87-year exposure duration)	2.8	< 0.01	0.15
Project Operations (24.13-year exposure duration)	3.5	< 0.01	3.33
Existing plus Project			
Existing plus Construction plus Operations	49.2	0.04	3.95
Existing plus Construction	45.7	0.04	0.65
BAAQMD Cumulative Thresholds	100	10.0	0.8
Exceeds Thresholds?	**No**	**No**	**Yes**
Scenario 8 (Operations Only) – Onsite			
Existing Sources			
Stationary	22.2	0.04	0.14
Roadway	15.2	—	0.35
Rail	5.5	—	0.01
Existing Total	42.9	0.04	0.5
Project Sources			
Project Operations (30-year exposure duration)	0.38	< 0.01	3.33
Existing plus Project			
Existing plus Operations	43.3	0.04	3.88
BAAQMD Cumulative Thresholds	100	10.00	0.8
Exceeds Thresholds?	**No**	**No**	**Yes**

Table 3.3-17. Maximum Cumulative Health Risks – Recreational Receptors

Source[b]	Maximum Affected Recreational Receptor: Cancer Risk (per million)	Non-Cancer Chronic Hazard Index	Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Scenarios 1 and 3 (Construction Only and Construction plus Operations) – Offsite			
Existing Sources			
Stationary Sources	22.2	0.04	0.14
Roadway Sources	15.4	—	0.36
Rail Sources	4.9	—	0.01
Existing Total	**42.5**	**0.04**	**0.51**
Project Sources			
Project Construction (9.55-year exposure duration)	0.1	< 0.01	0.01
Project Operations (28.71-year exposure duration)	0.2	< 0.01	1.12
Existing plus Project			
Existing plus Construction plus Operations	42.8	0.04	1.64
Existing plus Construction	42.6	0.04	0.51
BAAQMD Cumulative Thresholds	100	10	0.8
Exceeds Thresholds?	**No**	**No**	**Yes**
Scenario 2 (Operations Only) – Offsite			
Existing Sources			
Stationary	22.2	0.04	0.14
Roadway	15.4	—	0.36
Rail	4.9	—	0.01
Existing Total	**42.5**	**0.04**	**0.51**
Project Sources			
Project Operations (30-year exposure duration)	0.2	< 0.01	1.12
Existing plus Project			
Existing plus Operations	42.7	0.04	1.63
BAAQMD Cumulative Thresholds	100	10	0.8
Exceeds Thresholds?	**No**	**No**	**Yes**
Scenarios 7 and 9 (Construction Only and Construction plus Operations) – Onsite			
Existing Sources			
Stationary Sources	22.2	0.04	0.14
Roadway Sources	16.0	—	0.37
Rail Sources	5.5	—	0.01
Existing Total	43.7	0.04	0.52
Project Sources			
Project Construction (5.87-year exposure duration)	4.3	< 0.01	0.16
Project Operations (24.13-year exposure duration)	4.8	< 0.01	3.30

Source[b]	Maximum Affected Recreational Receptor: Cancer Risk (per million)	Maximum Affected Recreational Receptor: Non-Cancer Chronic Hazard Index	Maximum Affected Recreational Receptor: Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Existing plus Project			
Existing plus Construction plus Operations	52.8	0.04	3.98
Existing plus Construction	48.0	0.04	0.68
BAAQMD Cumulative Thresholds	100	10.0	0.8
Exceeds Thresholds?	**No**	**No**	**Yes**
Scenario 8 (Operations Only) – Onsite			
Existing Sources			
Stationary	22.2	0.04	0.14
Roadway	16.0	—	0.37
Rail	5.5	—	0.01
Existing Total	**43.7**	**0.04**	**0.52**
Project Sources			
Project Operations (30-year exposure duration)	1.0	< 0.01	3.30
Existing plus Project			
Existing plus Operations	44.7	0.04	3.82
BAAQMD Cumulative Thresholds	100	10.00	0.8
Exceeds Thresholds?	**No**	**No**	**Yes**
Scenarios 10 (Construction Only and Construction plus Operations) – Offsite with Patrick Henry Specific Plan Receptors			
Existing Sources			
Stationary Sources[a]	22.2	0.04	0.14
Roadway Sources	17.2	—	0.39
Rail Sources	5.8	—	0.01
Existing Total	**45.2**	**0.04**	**0.54**
Project Sources			
Project Construction (9.55-year exposure duration)	2.1	< 0.01	0.06
Project Operations (20.45-year exposure duration)	0.3	< 0.01	0.43
Existing plus Project			
Existing plus Construction plus Operations	47.6	0.04	1.03
Existing plus Construction	47.3	0.04	0.6
BAAQMD Cumulative Thresholds	100	10	0.8
Exceeds Thresholds?	**No**	**No**	**Yes**
Scenario 11 (Operations Only) – Offsite with Patrick Henry Specific Plan Receptors			
Existing Sources			
Stationary[a]	23.7	0.04	0.14
Roadway	17.1	—	0.52
Rail	6.1	—	0.01
Existing Total	**46.9**	**0.04**	**0.67**

Source[b]	Maximum Affected Recreational Receptor: Cancer Risk (per million)	Non-Cancer Chronic Hazard Index	Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Project Sources			
Project Operations (30-year exposure duration)	1.2	<0.01	0.43
Existing plus Project			
Existing plus Operations	48.1	0.04	1.1
BAAQMD Cumulative Thresholds	100	10	0.8
Exceeds Thresholds?	**No**	**No**	**Yes**

Notes: Exceedances are underlined.

a. Scenario 10 and Scenario 11 conservatively analyzed the stationary-source health risks from Cyxtera Communications, LLC, which is located within the Patrick Henry Specific Plan area but would not be operational during build-out of the Patrick Henry Specific Plan.

Table 3.3-18. Maximum Cumulative Health Risks – School Receptors

Source	Maximum Affected Residential Receptor: Cancer Risk (per million)	Non-Cancer Chronic Hazard Index	Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Scenarios 1 and 3 (Construction Only and Construction plus Operations) – Offsite			
Existing Sources			
Stationary Sources	22.2	0.04	0.14
Roadway Sources	19.0	—	0.44
Rail Sources	5.2	—	0.01
Existing Total	**46.4**	**0.04**	**0.59**
Project Sources			
Project Construction (9.55 -year exposure duration)	0.02	0.00001	0.0005
Project Operations (20.45-year exposure duration)	0.09	0.0002	0.135
Existing plus Project			
Existing plus Construction plus Operations	46.5	0.04	0.73
Existing plus Construction	46.4	0.04	0.59
BAAQMD Cumulative Thresholds	100	10	0.8
Exceeds Thresholds?	**No**	**No**	**No**
Scenario 2 (Operations Only) – Offsite			
Existing Sources			
Stationary	22.2	0.04	0.14
Roadway	19.0	—	0.44
Rail	5.2	—	0.01
Existing Total	**46.4**	**0.04**	**0.59**
Project Sources			
Project Operations (30-year exposure duration)	0.27	0.0002	0.135

Source	Maximum Affected Residential Receptor: Cancer Risk (per million)	Non-Cancer Chronic Hazard Index	Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Existing plus Project			
Existing plus Operations	46.7	0.04	0.73
BAAQMD Cumulative Thresholds	100	10	0.8
Exceeds Thresholds?	**No**	**No**	**No**

As described above, Mitigation Measures AQ-2.1 and AQ-2.2 would reduce DPM and $PM_{2.5}$ concentrations by requiring clean diesel-powered or electric construction equipment and implementing BAAQMD basic construction mitigation measures, respectively. Mitigation Measure AQ-2.6 would reduce DPM and $PM_{2.5}$ concentrations through the use of Tier 4 emergency generators; however, because there is uncertainty regarding the availability of the generators, the analysis reflects the use of Tier 3 emergency generators. In addition, because the Project would generate a relatively large number of daily vehicle trips, the resulting fugitive dust and exhaust emissions from that vehicle travel would cause a correspondingly large increase in $PM_{2.5}$ concentrations. There is no feasible mitigation to reduce $PM_{2.5}$ concentrations because of the nature of the emissions source (i.e., the large number of privately owned vehicles traveling on public roadways). The Project Sponsor has little control over this type of emissions source. Nonetheless, as described under Impact AQ-1, the Project would reduce demand for motor vehicle travel by promoting transportation efficiency, implementing a TDM plan, and exploring alternative transit methods. Still, the $PM_{2.5}$ concentrations resulting from Project operation, as well as construction and operational overlap, would exceed the BAAQMD $PM_{2.5}$ cumulative threshold, and there are no additional onsite mitigation measures to reduce the number of vehicle trips to and from the site. Thus, health risks and $PM_{2.5}$ concentrations would exceed BAAQMD thresholds after the incorporation of Mitigation Measures AQ-2.1, AQ-2.2, and AQ-2.6, and no further mitigation is available. Therefore, the cumulative effect of health risks associated with TACs emitted by the Project in combination with health risks associated with existing TAC sources would result in a cumulatively considerable local health risk at sensitive land uses. This impact would be ***significant and unavoidable with mitigation.***

Impact C-AQ-4: Cumulative Odors. The Project, in combination with other foreseeable development in the vicinity, would not result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people. (Less than Significant)

Construction and Operation

Odor impacts during construction and operation of the Project would be less than significant with incorporation of General Plan Policy 5.10.5-P35, which requires the establishment of buffers between odor sources and new sensitive uses, consistent with the BAAQMD CEQA Guidelines.[70] In addition, other projects in the vicinity would not include odor-generating uses, according to the BAAQMD CEQA Guidelines, and future Project activities would not be anticipated to affect the operation of odor-generating facilities. Thus, a significant, cumulative impact would not occur. As a result, the level of odors emitted by the Project in combination with the level of odors associated with other nearby projects would result in a cumulative impact that would be ***less than significant***.

[70] City of Santa Clara. 2011. *Integrated Final EIR for the 2010–2035 General Plan*. January. Available: https://www.santaclaraca.gov/home/showpublisheddocument/12900/635713044859030000. Accessed: February 17, 2023.

3.4 Greenhouse Gas Emissions

This section describes the regulatory setting and environmental conditions for greenhouse gas (GHG) emissions within and around the Mission Point Project (Project) site, including a discussion of the current state of climate change science, GHG emission sources in California, and applicable regulations. It also quantifies GHG emissions that would result from implementation of the Project, discusses the potential contribution of Project-generated GHG emissions to global climate change, evaluates the Project's consistency with plans to reduce GHG emissions, and identifies mitigation for significant impacts where feasible. Supporting GHG calculations are provided in the Air Quality and Greenhouse Gas Data appendix, Appendix 3.3-1.

No questions or concerns related to GHG emissions were raised in the responses to the Notice of Preparation (NOP) (Appendix 1).

Existing Conditions

Regulatory Setting

Federal

Several federal executive orders (EO) have recently been signed by President Joe Biden related to GHG emissions and climate resiliency. EO 13990, signed in January 2021, set a national goal to achieve a 50 to 52 percent reduction from 2005 levels in economy-wide net GHG pollution in 2030. EO 14057, signed in December 2021, requires federal agencies to develop strategic processes for achieving, among other things, carbon-free electricity by 2030 and 100 percent zero-emission vehicle acquisitions by 2035. President Joe Biden has also signed two bills—Infrastructure Investment and Jobs Act (2021) and Inflation Reduction Act (2022)—that provide funding for infrastructure improvements that will reduce GHG emissions and bolster resilience to climate change. Despite these actions, there is currently no federal law or legislatively mandated national GHG reduction target.

Corporate Average Fuel Economy Standards

The National Highway Traffic Safety Administration's (NHTSA's) Corporate Average Fuel Economy (CAFE) standards require substantial improvements in fuel economy and reductions in GHG emissions generated by passenger cars and light-duty trucks sold in the United States. On August 2, 2018, the U.S. Environmental Protection Agency (EPA) and NHTSA proposed amendments to the current fuel efficiency standards for passenger cars and light-duty trucks as well as new standards for model years 2021 through 2026. Under the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, current 2020 standards would be maintained through 2026.

On September 19, 2019, EPA and NHTSA issued a final action on the One National Program Rule, which is considered Part One of the SAFE Vehicles Rule and a precursor to the proposed fuel efficiency standards, withdrawing the State of California's (State's) CAA preemption waiver to set state-specific standards.[1] The

[1] The One National Program Rule enables EPA and NHTSA to provide nationwide uniform fuel economy and GHG vehicle standards by 1) clarifying that federal law preempts State and local tailpipe GHG standards, 2) affirming NHTSA's statutory authority to set nationally applicable fuel economy standards, and 3) withdrawing California's CAA preemption waiver to set state-specific standards.

EPA reinstated California's authority under the CAA to implement its own GHG emission standards and zero-emission vehicles (ZEV) sales mandate on March 9, 2022.[2] On December 19, 2021, NHTSA finalized its vehicle efficiency standards rule to reach a projected industry-wide target of 40 miles per gallon by 2026, an approximately 25 percent increase over the prior SAFE rule.[3]

State

Statewide GHG Emission Targets and the Climate Change Scoping Plan

The State has adopted statewide legislation to address various aspects of climate change and GHG emissions mitigation. Much of this legislation establishes a broad framework for the State's long-term GHG reduction and climate change adaptation program. Senate Bill (SB) 32 requires the State to reduce emissions to 40 percent below the 1990 level by 2030. Assembly Bill (AB) 1279 requires California to achieve net-zero GHG emissions (i.e., reach a balance between the GHGs emitted and removed from the atmosphere) no later than 2045 and maintain net negative GHG emissions from then on. It also mandates an 85 percent reduction in statewide anthropogenic GHG emissions (from 1990 levels) by 2045. SB 1203 requires State agencies to achieve net-zero GHG emissions resulting from their operations no later than 2035, or as soon as feasible thereafter.

The State's plan to reach the aforementioned targets is presented in periodic scoping plans. The California Air Resources Board (CARB) adopted the 2017 Climate Change Scoping Plan (2017 Scoping Plan) in November 2017 to meet the GHG reduction requirement set forth in SB 32.[4] It proposed continuing the major aspects of the previous scoping plan, including cap-and-trade regulation; low-carbon fuel standards; more efficient cars, trucks, and freight movement; the Renewables Portfolio Standard (RPS); and reductions in methane (CH_4) emissions from agricultural and other wastes. In December 2022, CARB adopted its Final 2022 Scoping Plan Update for Achieving Carbon Neutrality (2022 Scoping Plan), which identifies a technologically feasible, cost-effective and equity-focused path to achieve carbon neutrality by 2045, pursuant to AB 1279.[5] The plan also assesses the State's progress toward meeting the GHG emissions reduction goal called for in SB 32.

The State has also passed more detailed legislation to address GHG emissions associated with transportation, electricity generation, and energy consumption, as summarized below.

Vehicle Efficiency and Zero-Emissions Standards

AB 1493 (Pavley I) required CARB to develop and implement regulations to reduce automobile and light-truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the model year 2009. Additional strengthening of the Pavley standards (referred to

[2] California, 22 other states, the District of Columbia, and two cities filed suit against Part One of the SAFE Vehicles Rule on September 20, 2019 (*California et al. v. United States Department of Transportation et al.,* 1:19-cv-02826, U.S. District Court for the District of Columbia). On December 12, 2021, NHTSA repealed the SAFE Vehicles Rule, Part One.

[3] EPA and NTHSA published final rules to amend and establish national carbon dioxide (CO_2) and fuel economy standards on April 30, 2020 (Part Two of the SAFE Vehicles Rule) (85 *Federal Register* 24174). The revised rule changes the national fuel economy standards for light-duty vehicles from 46.7 to 40.4 miles per gallon in future years. California, 22 other states, the District of Columbia filed a petition for review of the final rule on May 27, 2020.

[4] California Air Resources Board. 2017. *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*. November. Available: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed: January 30, 2023.

[5] California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. November. Available: https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf. Accessed: January 30, 2023.

previously as Pavley II and now referred to as the Advanced Clean Cars measure) was adopted for vehicle model years 2017–2025 in 2012. Together, the two standards are expected to increase average fuel economy to roughly 54.5 miles per gallon in 2025.

In August 2022, CARB board members voted to approve the Advanced Clean Cars II proposal, which should dramatically reduce emissions from passenger cars in model years 2026 through 2035. This will require an increasing proportion of new vehicles to be zero-emission vehicles, with the goal being to have 100 percent of new vehicles sold by 2035 to be zero-emission vehicles.[6]

CARB also adopted the Advanced Clean Truck Regulation to accelerate a large-scale transition to zero-emission medium- and heavy-duty vehicles. The regulation requires zero-emission medium- and heavy-duty vehicles to be an increasing percentage of total annual vehicle sales in California between 2024 and 2035. By 2035, zero-emission truck/chassis sales will 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. By 2045, every new medium- and heavy-duty truck sold in California will need to be a zero-emission truck. Large employers, including retailers, manufacturers, brokers, and others, are required to report information about shipments and shuttle services to ensure they purchase available zero-emission trucks for their fleets.

Low-Carbon Fuel Standard

In 2007, with EO S-01-07, Governor Schwarzenegger set forth the low-carbon fuel standard for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 20 percent by 2030.

Legislation Associated with Electricity Generation

The State passed legislation that requires increasing use of renewables to produce electricity for consumers. Specifically, California utilities are required to generate 52 percent of their electricity from renewables by 2027 (SB 100), 60 percent by 2030 (SB 100), 90 percent by 2035 (SB 1020), 95 percent by 2040 (SB 1020), and 100 percent by 2045 (SB 100/SB 1020). SB 1020 also requires State agencies to rely on 100 percent renewable energy and zero-carbon resources for their own facilities by 2030.

Electricity Transmission and Distribution Equipment

Sulfur hexafluoride (SF_6) is a potent GHG and commonly used in circuit breakers, gas-insulated substations, and other switchgear used in transmission systems to manage the high voltages carried between generation stations and customer load centers.[7] Pursuant to the Global Warming Solutions Act of 2006, Assembly Bill (AB) 32, CARB approved a reduction in emissions of SF_6 from electrical transmission and distribution equipment as an early action measure in 2007. In 2010, CARB adopted the Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear, requiring switchgear owners to reduce their emission rates. Despite considerable progress toward developing non-SF_6 gas-insulated equipment, new technologies have not been widely adopted.[8] As a result, CARB amended the regulation in 2021 to phase out the acquisition of SF_6 gas-insulated equipment. The amended regulation has been effective since January 1, 2022.

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6 California Air Resources Board. 2022. *Proposed Advanced Clean Cars II Regulations: All New Passenger Vehicles Sold in California to Be Zero Emissions by 2035*. Available: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/advanced-clean-cars-ii. Accessed: January 30, 2023.

7 California Air Resources Board. 2023. *Electricity Transmission and Distribution Greenhouse Gas Emissions.* Available: https://ww2.arb.ca.gov/our-work/programs/elec-tandd/about. Accessed: October 19, 2023.

8 Ibid.

California Energy Code and CALGreen (Title 24, Parts 6 and 11)

The energy consumption of new residential and non-residential buildings in California is regulated by the California Code of Regulations (CCR), Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code), and Part 11, California Green Building Standards Code (CALGreen). The California Energy Commission (CEC) updates the California Energy Code every 3 years with more stringent design requirements to reduce energy consumption, resulting in lower GHG emissions. The 2022 California Energy Code, which took effect on January 1, 2023, requires builders to use more energy-efficient building technologies to comply with requirements regarding energy use. Similarly, CALGreen is updated every 3 years; the 2022 CALGreen took effect on January 1, 2023. CALGreen includes regulations for energy efficiency, water efficiency and conservation, material conservation, and resource efficiency.

Clean Energy and Pollution Reduction Act of 2015

SB 350 was approved by the California Legislature in September 2015 and signed by Governor Brown in October 2015. Its key provisions require the following by 2030: 1) RPS of 50 percent, which has since been increased by subsequent legislation, as noted above, and 2) a doubling of energy efficiency by 2030, including improvements to the efficiency of existing buildings. These provisions will be implemented by future actions of the California Public Utilities Commission and CEC.

Solid Waste Diversion Regulations

To minimize the amount of solid waste that must be disposed of in landfills, the California Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties were required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. Through other statutes and regulations, this 50 percent diversion rate also applies to State agencies. In order of priority, waste reduction efforts must promote source reduction, recycling and composting, and environmentally safe transformation and land disposal.

In 2011, AB 341 modified the California Integrated Waste Management Act and directed the California Department of Resources Recycling and Recovery (CalRecycle) to develop and adopt regulations for mandatory commercial recycling. As of July 1, 2012, the resulting mandatory commercial recycling required certain businesses that generate 4 cubic yards or more of commercial solid waste per week to arrange recycling services. To comply with this requirement, businesses could either separate recyclables and self-haul them or subscribe to a recycling service with mixed-waste processing. AB 341 also established a statewide recycling goal of 75 percent; under AB 939, the 50 percent disposal reduction mandate still applied to cities and counties.

Short-Lived Climate Pollutant Reduction Strategy

In 2014, SB 605 directed CARB, in coordination with other State agencies and local air districts, to develop the comprehensive Short-Lived Climate Pollutant (SLCP) Reduction Strategy. In 2016, SB 1383 directed CARB to approve and implement the strategy to achieve the following reductions in SLCPs:

- 40 percent reduction in CH_4 relative to 2013 levels by 2030,
- 40 percent reduction in hydrofluorocarbon (HFC) gases relative to 2013 levels by 2030, and
- 50 percent reduction in anthropogenic black carbon relative to 2013 levels by 2030.

SB 1383 also establishes the following targets for reducing organic waste in landfills as well as CH_4 emissions from dairy and livestock operations, as follows:

- 50 percent reduction in organic waste disposal relative to 2014 levels by 2020,
- 75 percent reduction in organic waste disposal relative to 2014 levels by 2025, and
- 40 percent reduction in CH4 emissions from livestock and dairy manure management operations relative to the livestock and dairy sectors' 2013 levels by 2030.

CARB and CalRecycle have developed regulations to achieve the organic waste reduction goals under SB 1383. In January and June 2019, CalRecycle proposed new and amended regulations to CCR Title 14 and Title 27. Among other things, the regulations set forth minimum standards for organic waste collection, hauling, and composting. The final regulations took effect on January 1, 2022.

CARB adopted the SLCP Reduction Strategy in March 2017 as a framework for achieving the CH_4, HFC, and anthropogenic black carbon reduction targets set by SB 1383. The SLCP Reduction Strategy includes 10 measures to reduce SLCPs, which fit within a wide range of ongoing planning efforts throughout the state, including CARB's and CalRecycle's proposed rulemaking on organic waste diversion (discussed above).

Water Conservation Act of 2009

The overall goal of the Water Conservation Act of 2009, SB X7-7, was to reduce per capita urban water use by 20 percent as of December 31, 2020. California was required to make incremental progress toward this goal by reducing per capita water use by at least 10 percent by December 31, 2015. This act is an implementing measure of the 2017 Scoping Plan, which continues to be implemented. Reductions in water consumption reduce the amount of energy, as well as the emissions, associated with conveying, treating, and distributing water; emissions from wastewater treatment are also reduced.

Regional

Metropolitan Transportation Commission

The Metropolitan Transportation Commission (MTC) is the metropolitan planning organization for the nine counties that make up the San Francisco Bay Area and the San Francisco Bay Area Air Basin (SFBAAB), which includes Santa Clara. The first per capita GHG emissions reduction targets for the SFBAAB were 7 percent by 2020 and 15 percent by 2035 relative to 2005 levels. In 2013, MTC adopted a Sustainable Communities Strategy (SCS) as part of its Regional Transportation Plan (RTP) for the SFBAAB. This was known as Plan Bay Area. The plan goes beyond regional per capita targets and calls for 10 and 16 percent reductions in per capita GHG emissions by 2020 and 2035, respectively.[9] On July 26, 2017, the strategic update to this plan, known as Plan Bay Area 2040, was adopted by the Association of Bay Area Governments (ABAG) and the MTC. As a limited and focused update, Plan Bay Area 2040 builds upon the growth pattern and strategies developed in the original Plan Bay Area but with updated planning assumptions that incorporate key economic, demographic, and financial trends since 2013.[10] As required by SB 375, CARB updated the per capita GHG emissions reduction targets in 2018. The new targets

[9] Metropolitan Transportation Commission and Association of Bay Area Governments. 2013. *Plan Bay Area.* Adopted: July 18. Available: http://files.mtc.ca.gov/library/pub/28536.pdf. Accessed: January 30, 2023.

[10] Metropolitan Transportation Commission and Association of Bay Area Governments. 2017. *Plan Bay Area 2040.* Adopted: July 26. Available: http://2040.planbayarea.org/files/2020-02/Final_Plan_Bay_Area_2040.pdf. Accessed: January 30, 2023.

(i.e., reductions in per capita GHG emissions of 10 percent by 2020 and 19 percent by 2035 relative to 2005 levels) are addressed in the latest update to Plan Bay Area, Plan Bay Area 2050, which was approved by ABAG and the MTC in October 2021. Plan Bay Area 2050 carries forward many of the development and funding strategies of Plan Bay Area 2040.[11]

Bay Area Air Quality Management District

The Bay Area Air Quality Management District (BAAQMD) is the primary agency responsible for addressing air quality concerns in the San Francisco Bay Area, including Santa Clara County. Its role is discussed further in Section 3.3, *Air Quality*. BAAQMD also recommends methods for analyzing project-related GHGs in California Environmental Quality Act (CEQA) analyses as well as multiple GHG reduction measures for land use development projects.

In April 2023, BAAQMD adopted the 2022 CEQA Air Quality Guidelines,[12] which include new climate impact thresholds that address the statewide GHG target established by SB 32 and the eventual goal of carbon neutrality by 2045 (e.g., EO B-55-18). The guidelines also look at how project and plan-level CEQA analyses should evaluate the significance of climate impacts, based on evolving case law. The BAAQMD 2022 CEQA Air Quality Guidelines update the CEQA GHG thresholds from the 2017 CEQA Air Quality Guidelines, which were not consistent with the statewide GHG target established by SB 32. In summary, the updated thresholds emphasize (1) avoiding wasteful electricity usage and developing fossil fuel infrastructure in new buildings that will be in place for decades and thus conflict with carbon-neutrality goals by 2045, (2) compliance with the California Green Building Standards (CALGreen) Tier 2 electric-vehicle (EV) requirements and per capita reductions in vehicle miles traveled (VMT) consistent with SB 743, and (3) consistency with a qualified GHG emissions reduction strategy (also known as a Climate Action Plan [CAP]). BAAQMD also provided an appendix to the 2022 CEQA Air Quality Guidelines, *Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans* (BAAQMD Justification Report), that explains why its thresholds and approach to analysis for project-level impacts under CEQA are supported by substantial evidence.[13]

Local

City of Santa Clara Climate Action Plan

The City of Santa Clara (City) adopted a CAP in 2013 that outlines the City's efforts to reduce GHG emissions consistent with earlier BAAQMD CEQA Air Quality Guidelines and larger statewide GHG reduction goals.[14] The CAP provided an emissions inventory for 2008, forecast emissions for 2020 and 2035, and set a GHG reduction goal of 15 percent below 2008 levels by 2020.

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[11] Metropolitan Transportation Commission and Association of Bay Area Governments. 2021. *Plan Bay Area 2050.* Adopted: October 21. Available: https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf. Accessed: January 30, 2023.

[12] Bay Area Air Quality Management District. 2022. *California Environmental Quality Act Air Quality Guidelines.* April. *Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines. Accessed: January* 30, 2023.

[13] Bay Area Air Quality Management District. 2022. *Appendix B: Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans.* April. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en. Accessed: January 30, 2023.

[14] City of Santa Clara. 2013. *Climate Action Plan*. Available: https://www.santaclaraca.gov/home/showpublisheddocument/10170/635713044859030000. Accessed: January 30, 2023.

In June 2022, the City adopted its updated CAP (2022 CAP) to assess Santa Clara's GHG emissions and align with new State requirements. The 2022 CAP sets GHG reduction targets of 40 percent and 80 percent below 1990 levels by 2030 and 2035, respectively, with the long-term goal of achieving carbon neutrality by 2045. Table 3.4-1 shows the City's GHG emissions inventory for 1990, 2008, 2016, and 2030 (including anticipated CAP reductions). The 2022 CAP does not provide the City's GHG emissions for 2045 but notes that State and regional policies and regulations are projected to reduce 2045 business-as-usual (BAU) emissions by 72 percent. CAP actions are projected to reduce emissions by an additional 25 percent.

Table 3.4-1. City of Santa Clara Community Greenhouse Gas Emissions Inventory ($MTCO_2e$)

Emissions Sources	1990	2008	2016	2030
Estimated citywide GHG emissions	1,583,400	1,862,824	1,790,833	N/A
Projected citywide GHG emissions	N/A	N/A	N/A	1,497,040
Projected CAP emission reductions	N/A	N/A	N/A	550,553
Total GHG Emissions (metric tons CO_2e)	**1,583,400**	**1,862,824**	**1,790,833**	**946,487[a]**

Source: City of Santa Clara. 2022. *City of Santa Clara Climate Action Plan*. Available: https://www.santaclaraca.gov/home/showpublisheddocument/77735/637950494944230000. Accessed: January 30, 2023.

a. Total 2030 GHG emissions calculated by subtracting Project CAP emissions reductions from projected citywide GHG emissions in 2030.

Notes: $MTCO_2e$ = metric tons of carbon dioxide equivalent, N/A = not applicable

CEQA authorizes reliance on a previously approved GHG emissions reduction plan (e.g., a CAP) that was prepared as a "plan for the reduction of greenhouse gas emissions," per Section 15183.5 of the State CEQA Guidelines. This section of the State CEQA Guidelines establishes opportunities for CEQA tiering when projects are consistent with adopted GHG emissions reduction plans and their impacts can be determined to be less than significant, provided the GHG emissions reduction plans meet specific criteria established under Section 15183.5. Table 3.4-2 evaluates the City's 2022 CAP with respect to the criteria defined in Section 15183.5 of the State CEQA Guidelines. Because the City's 2022 CAP satisfies the tiering requirements established in Section 15183.5 of the State CEQA Guidelines, it can be used to determine the significance of an individual project's GHG emissions.

Table 3.4-2. City of Santa Clara 2022 CAP Consistency with CEQA Guidelines Section 15183.5 Criteria

Criteria	2022 CAP Consistency
(A) Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area.	**Consistent**. The 2022 CAP quantifies existing and projected GHG emissions within the city beginning in 2008 and ending in 2050. As such, the 2022 CAP is consistent with this criterion.
(B) Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable.	**Consistent**. The 2022 CAP sets GHG reduction targets of 40 percent and 80 percent below 1990 levels by 2030 and 2035, respectively, with the long-term goal of achieving carbon neutrality by 2045. These targets align with the State's climate targets. As such, the 2022 CAP is consistent with this criterion.
(C) Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area.	**Consistent**. The 2022 CAP provides a community-wide GHG emissions forecast that identifies GHG emissions from wastewater treatment, landfilled waste, residential natural gas, residential electricity, non-residential natural gas, non-

Criteria	2022 CAP Consistency
	residential electricity, and transportation within the city. As such, the 2022 CAP is consistent with this criterion.
(D) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level.	**Consistent**. The 2022 CAP specifies GHG reduction strategies related to buildings and energy, transportation and land use, materials and consumption, natural systems and water resources, and community resilience and well being. To facilitate evaluation of projects' consistency with the CAP, the City developed the *City of Santa Clara 2022 Climate Action Plan Compliance Checklist*, which identifies specific CAP measures that are applicable to proposed discretionary projects and should be implemented on a project-by-project basis to support achievement of the City's GHG reduction targets. As such, the 2022 CAP is consistent with this criterion.
(E) Establish a mechanism to monitor the plan's progress toward achieving the specified level and require an amendment if the plan is not achieving specified levels.	**Consistent**. The 2022 CAP establishes mechanisms for oversight and accountability as well as monitoring and evaluation. Specifically, the 2022 CAP calls for identifying the staff members responsible for monitoring progress toward target achievement and preparing annual progress reports within the first year of CAP implementation. Moreover, the 2022 CAP indicates that City staff members will update the City's emissions inventory every 3 to 5 years, with the next CAP update planned for 2030. As such, the 2022 CAP is consistent with this criterion.
(F) Be adopted in a public process following environmental review.	**Consistent**. The 2022 CAP was unanimously adopted by the City Council on June 7, 2022, after a community engagement process that spanned 2 years, during which time the environmental document for the CAP was made available for public comment. As such, the 2022 CAP is consistent with this criterion.

Source: City of Santa Clara. 2022. *City of Santa Clara Climate Action Plan*. Available: https://www.santaclaraca.gov/home/showpublisheddocument/77735/637950494944230000. Accessed: January 30, 2023.
City of Santa Clara. 2023. *Climate Action Plan*. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan/climate-action-plan. Accessed: October 18, 2023.
City of Santa Clara. 2022. *City of Santa Clara 2022 Climate Action Plan Compliance Checklist*. Available: https://www.santaclaraca.gov/home/showpublisheddocument/80936/638233856117730000. Accessed: October 18, 2023.

City of Santa Clara 2010–2035 General Plan

The City of Santa Clara 2010–2035 General Plan (General Plan) includes the following goals and policies associated with GHGs:

- *Policy 5.3.1-P11:* Encourage new developments proposed within a reasonable distance of an existing or proposed recycled water distribution system to utilize recycled water for landscape irrigation, industrial processes, cooling, and other appropriate uses to reduce water use consistent with the CAP.
- *Policy 5.3.1-P14:* Encourage Transportation Demand Management strategies and the provision of bicycle and pedestrian amenities in all new development greater than 25 housing units or more than 10,000 non-residential square feet, and for City employees, decrease use of the single-occupant automobile and reduce vehicle miles traveled consistent with the CAP.

- *Policy 5.3.1-P33:* Implement, and regularly update, the City's adopted Climate Action Plan to reduce greenhouse gas emissions and meet the established goals consistent with State regulations.
- *Policy 5.8.1-P4:* Expand transportation options and improve alternate modes that reduce greenhouse gas emissions.
- *Policy 5.8.1-P5:* Work with local, regional, State, and private agencies, as well as employers and residents, to encourage programs and services that reduce vehicle miles traveled.
- *Policy 5.8.1-P6:* Implement level-of-service standards that support increased transit ridership, biking, and walking in order to decrease vehicle miles traveled and reduce air pollution, energy consumption, and greenhouse gas emissions.
- *Policy 5.8.6-P15:* Require new parking lots to be surfaced with materials to reduce heat gain, consistent with the building code and CAP.
- *Policy 5.10.1-P8:* Increase to 80 percent reduction for solid waste tonnage by 2020, or as consistent with the CAP.

- **Goal 5.10.2-G2:** Reduced greenhouse gas emissions that meet the State and regional goals and requirements to combat climate change.
  - *Policy 5.10.2-P4:* Encourage measures to reduce greenhouse gas emissions to reach 30 percent below 1990 levels by 2020.
- **Goal 5.10.3-G2:** Implementation of energy conservation measures to reduce consumption.
  - *Policy 5.10.3-P1:* Promote the use of renewable energy resources, conservation, and recycling programs.
  - *Policy 5.10.3-P2:* Transition away from using coal as an energy source to renewable resources by replacing coal in Silicon Valley Power's portfolio, exploring City-owned property for renewable energy projects, developing solar projects, and incentivizing solar projects for residents and businesses, consistent with the CAP.
  - *Policy 5.10.3-P3:* Maximize the efficient use of energy throughout the community by achieving adopted electricity efficiency targets and promoting natural gas efficiency, consistent with the CAP.
  - *Policy 5.10.3-P4:* Encourage new development to incorporate sustainable building designs, site planning, and construction, including encouraging solar opportunities.
  - *Policy 5.10.3-P5:* Reduce energy consumption through sustainable construction practices, materials, and recycling.
  - *Policy 5.10.3-P6:* Promote sustainable buildings and land planning for all new development, including programs that reduce energy and water consumption in new development.
  - *Policy 5.10.3-P7:* Encourage installation of solar energy collection through solar hot water heaters and photovoltaic arrays.
  - *Policy 5.10.3-P8:* Provide incentives for LEED certified, or equivalent, development.
  - *Policy 5.10.3-P9:* Incorporate criteria for sustainable building and solar access into the City's ordinances and regulations.

- *Policy 5.10.3-P11:* Continue innovative energy programs to develop cost-effective alternative power sources and encourage conservation.
- *Policy 5.10.3-P12:* Work with Silicon Valley Power to implement adequate energy distribution facilities to meet the demand generated by new development.
- *Policy 5.10.3-P13:* Work with Pacific Gas and Electric to ensure an adequate supply of natural gas to meet the demand generated by new development.
- *Policy 5.10.3-P14:* Explore opportunities for alternative energy "fueling stations" and promote participation in shuttle services that use new technology vehicles to reduce greenhouse gas emissions.

City of Santa Clara Construction and Demolition Debris Recycling Program

Pursuant to the City of Santa Clara Construction and Demolition Debris Recycling Program website, the City "requires applicants seeking construction and/or demolition permits for projects greater than 5,000 square feet to track and divert a minimum of 65 percent of the discards created during the project. Diversion is achieved through recycling or reuse. All contractors and sub-contractors are responsible for the proper management of the C&D debris on the project site. This may involve separating recyclable materials from non-recyclable materials before hauling to a recycling or disposal facility in order to achieve 65 percent diversion."[15] The City's *Construction Solid Waste Management Notes*[16] outline the requirements for projects subject to the diversion requirement, such as the Project.

Environmental Setting

Global Climate Change

The process known as the *greenhouse effect* keeps the atmosphere near Earth's surface warm enough for the successful habitation of humans and other life forms. The greenhouse effect is created by sunlight that passes through the atmosphere. Some of the sunlight striking Earth is absorbed and converted to heat, which warms the surface. The surface emits a portion of this heat as infrared radiation, some of which is re-emitted toward the atmosphere by GHGs. Human activities that generate GHGs increase the amount of infrared radiation absorbed by the atmosphere, thereby enhancing the greenhouse effect and amplifying the warming of Earth.

Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere since the Industrial Revolution.[17] Rising atmospheric concentrations of GHGs, in excess of natural levels, have resulted in increasing global surface temperatures—a process commonly referred to as *global warming*. Higher global surface temperatures have, in turn, resulted in changes to Earth's climate system, including increases in ocean temperature and acidity, reduced sea ice, variable

[15] City of Santa Clara. 2023. *Construction and Demolition Debris Recycling Program*. Available: https://www.santaclaraca.gov/our-city/departments-g-z/public-works/environmental-programs/commercial-and-industrial-garbage-recycling/construction-demolition-debris-recycling-program. Accessed: June 21, 2023.

[16] City of Santa Clara. 2021. *Construction Solid Waste Management Notes*. Available: https://www.santaclaraca.gov/home/showpublisheddocument/73825/637558925737500000. Accessed: June 21, 2023.

[17] Intergovernmental Panel on Climate Change. 2007. *Climate Change 2007: The Physical Science Basis*. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Available: https://www.ipcc.ch/site/assets/uploads/2018/05/ar4_wg1_full_report-1.pdf. Accessed: January 30, 2023.

precipitation, and increases in the frequency and intensity of extreme weather events.[18] Large-scale changes to Earth's system are collectively referred to as *climate change.*

The Intergovernmental Panel on Climate Change (IPCC) was established by the World Meteorological Organization and United Nations Environment Programme to assess scientific, technical, and socioeconomic information relevant to the understanding of climate change, its potential impacts, and options for adaptation and mitigation. The IPCC estimates that human-induced warming reached approximately 1 degree Celsius (°C) above pre-industrial levels in 2017 and is increasing at a rate of 0.2°C per decade. Under the current nationally determined contributions of mitigation from each country until 2030, global warming is expected to rise to 3°C by 2100 and continue afterward.[19] Large increases in global temperatures could have substantial adverse effects on the natural and human environments in California and worldwide.

Greenhouse Gases

The principle anthropogenic (human-made) GHGs are CO_2, CH_4, nitrous oxide (N_2O), and fluorinated compounds, including sulfur hexafluoride, HFCs, and perfluorocarbons. The primary GHGs that would be emitted by Project-related construction and operations include CO_2, CH_4, and N_2O. The principal characteristics of these pollutants are discussed below.

Carbon dioxide enters the atmosphere through the combustion of fossil fuel (i.e., oil, natural gas, coal), solid waste decomposition, plant and animal respiration, and chemical reactions (e.g., from manufacturing cement). CO_2 is also removed from the atmosphere, or *sequestered*, when it is absorbed by plants as part of the biological carbon cycle.

Methane is emitted during the production and transport of coal, natural gas, and oil. CH_4 emissions also result from livestock and agricultural practices as well as the anaerobic decay of organic waste in municipal solid waste landfills.

Nitrous oxide is emitted by agricultural and industrial activities as well as the combustion of fossil fuels and solid waste.

Methods have been set forth to describe emissions of GHGs in terms of a single gas to simplify reporting and analysis. The most commonly accepted method for comparing GHG emissions is the global warming potential (GWP) methodology defined in IPCC reference documents. IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of carbon dioxide equivalent (CO_2e), which compares the gas in question to that of the same mass of CO_2. By definition, CO_2 has a GWP of 1.

Table 3.4-3 lists the global warming potential of CO_2, CH_4, and N_2O and their lifetimes in the atmosphere.

[18] Intergovernmental Panel on Climate Change. 2018. *Global Warming of 1.5°C.* Contribution of Working Group I, II, and III (Summary for Policy Makers). Available: https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SPM_version_report_LR.pdf. Accessed: January 30, 2023.

[19] Ibid.

Table 3.4-3. Lifetimes and Global Warming Potentials of Key Greenhouse Gases

Greenhouse Gas	Global Warming Potential (100 years)	Lifetime (years)
Carbon dioxide (CO_2)	1	—[a]
Methane (CH_4)	25	12
Nitrous oxide (N_2O)	298	114

Source: California Air Resources Board. 2020a. *GHG Global Warming Potentials.* Available: https://ww2.arb.ca.gov/ghg-gwps. Accessed: January 30, 2023.

[a] No lifetime (years) for carbon dioxide was presented by the California Air Resources Board.

CARB recognizes the importance of reducing emissions of SLCPs, as described in the *Regulatory Setting,* to achieve the State's overall climate change goals. SLCPs have atmospheric lifetimes on the order of a few days to a few decades, and their relative climate-forcing impacts, when measured in terms of how they heat the atmosphere, can be tens, hundreds, or even thousands of times greater than those of CO_2.[20] Given their short-term lifespan and warming impact, SLCPs are measured in terms of CO_2e using a 20-year time period. The use of GWPs with a time horizon of 20 years captures the importance of SLCPs and gives a better perspective as to the speed at which emission controls will affect the atmosphere relative to CO_2 emission controls. The SLCP Reduction Strategy, as discussed in the *Regulatory Setting*, addresses CH_4, HFC gases, and anthropogenic black carbon. CH_4 has lifetime of 12 years and a 20-year GWP of 72. HFC gases have lifetimes of 1.4 to 52 years and a 20-year GWP of 437 to 6,350. Anthropogenic black carbon has a lifetime of a few days to weeks and a 20-year GWP of 3,200.[21]

Greenhouse Gas Reporting

A GHG inventory is a quantification of all GHG emissions and sinks[22] within a selected physical and/or economic boundary. GHG inventories can be performed on a large scale (e.g., for global and national entities) or on a small scale (e.g., for a building or person). Several agencies have developed emissions inventories, which provide comprehensive accounts of total GHG emissions at varying scales, and tools for quantifying emissions from specific sources. Table 3.4-4 shows the results of the most current emissions inventories at the international, national, state, regional, and city levels, as quantified by the IPCC, EPA, CARB, BAAQMD, and the City, respectively.

[20] California Air Resources Board. 2017. *Short-Lived Climate Pollutant Reduction Strategy*. Available: https://ww2.arb.ca.gov/sites/default/files/2020-07/final_SLCP_strategy.pdf. Accessed: January 30, 2023.

[21] Ibid.

[22] A GHG sink is a process, activity, or mechanism that removes a GHG from the atmosphere.

Table 3.4-4. Global, National, State, and Local GHG Emissions Inventories

Emissions Inventory	CO_2e (metric tons)
2017 IPCC Global GHG Emissions Inventory[a]	53,500,000,000
2020 U.S. EPA National GHG Emissions Inventory[b]	5,981,400,000
2020 CARB State GHG Emissions Inventory[c]	369,200,000
2011 BAAQMD GHG Emissions Inventory[d]	86,600,000
2016 City of Santa Clara GHG Emissions Inventory[e]	1,790,833

Source:

a. Intergovernmental Panel on Climate Change. 2018b. *Emissions Gap Report 2018.* Available: https://www.ipcc.ch/site/assets/uploads/2018/12/UNEP-1.pdf. Accessed: January 30, 2023.

b. U.S. Environmental Protection Agency. 2022*. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2020.* Available: https://www.epa.gov/system/files/documents/2022-04/us-ghg-inventory-2022-main-text.pdf. Accessed: January 30, 2023.

c. California Air Resources Board. 2022. *Current California GHG Emission Inventory Data*. Available: https://ww2.arb.ca.gov/ghg-inventory-data. Accessed: February 1, 2023.

d. Bay Area Air Quality Management District. 2011. *Bay Area Emissions Inventory Summary Report: Greenhouse Gases Base Year 2011.* Updated: January 2015. Available: http://www.baaqmd.gov/~/media/files/planning-and-research/emission-inventory/by2011_ghgsummary.pdf. Accessed: January 30, 2023.

e. City of Santa Clara. 2022. *City of Santa Clara Climate Action Plan*. Available: https://www.santaclaraca.gov/home/showpublisheddocument/77735/637950494944230000. Accessed: January 30, 2023.

Potential Climate Change Effects

Climate change is a complex process that has the potential to alter local climatic patterns and meteorology. Although modeling indicates that climate change will result in sea-level rise, both globally and in San Francisco Bay, as well as changes in climate and rainfall, among other effects, there remains uncertainty about characterizing precise local climate characteristics and predicting precisely how various ecological and social systems will react to changes in the existing climate at the local level. Regardless of this uncertainty, it is widely understood that substantial climate change has occurred and will continue to occur in the future, although the precise extent will take further research to define. Specifically, the effects from global climate change in California and worldwide include the following:

- Declining sea ice and mountain snowpack levels, thereby increasing sea levels and sea surface evaporation rates, with a corresponding increase in atmospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures.[23]
- Rising average global sea levels, due primarily to thermal expansion in the oceans and the melting of glaciers, ice caps, and the Greenland and Antarctic ice sheets.[24]
- Changing weather patterns, including changes in precipitation and wind patterns, and more energetic episodes of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and intense tropical cyclones.[25]

[23] California Natural Resources Agency. 2018. *California's Fourth Climate Change Assessment Statewide Summary Report*. Available: https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf. Accessed: January 30, 2023.

[24] Intergovernmental Panel on Climate Change. 2018. *Global Warming of 1.5°C.* Contribution of Working Group I, II, and III (Summary for Policy Makers). Available: https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SPM_version_report_LR.pdf. Accessed: January 30, 2023.

[25] Ibid.

- Declining Sierra Nevada snowpack levels, which account for approximately half of the surface water storage in California. Researchers project declining snowpack levels despite occasional intense snowfall events, such as those that occurred in California during the 2023 winter season.[26] Specifically, snow levels could decline by 70 to as much as 90 percent over the next 100 years.[27]
- Increases in the number of days that could be conducive to ground-level ozone formation (e.g., clear days with intense sunlight) by the end of the 21st century in areas with high levels of ozone. The number of days could increase by 25 to 85 percent, depending on the future temperature scenario.[28]
- Increases in the potential for erosion of California's coastlines as well as seawater intrusion into the Sacramento Delta and associated levee systems due to the rise in sea level.[29]
- Exacerbation of drought conditions in California (e.g., durations and intensities could be amplified, ultimately increasing the risk of wildfires and consequential damage).[30]
- Lower crop yields for agricultural operations due to extreme heat waves, heat stress, increased water needs of crops and livestock (particularly during dry and warm years), and new and changing pest and disease threats.[31]

The impacts of climate change, such as increases in the number of heat-related events, droughts, and wildfires, pose direct and indirect risks to public health, with people experiencing worsening episodes of illness and an earlier death. Indirect impacts on public health include increases in incidents of vector-borne diseases, stress and mental trauma due to extreme events and disasters, economic disruptions, and residential displacement.[32]

Environmental Impacts

This section describes the impact analysis related to GHGs for the Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

Thresholds of Significance

The Project would have a significant effect if it would result in any of the conditions listed below.

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment (GHG-1).
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs (GHG-2).

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[26] Monroe, R. 2023. *California Snowlines on Track to be 1,600 Feet Higher by Century's End.* Available: https://scripps.ucsd.edu/news/california-snowlines-track-be-1600-feet-higher-centurys-end?auHash=2fi32VxEyQXOstedv47gfmAd_e0CN1gwWunJ0Ov14jU. Accessed: August 1, 2023.

[27] California Natural Resources Agency. 2018. *California's Fourth Climate Change Assessment Statewide Summary Report*. Available: https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf. Accessed: January 30, 2023.

[28] Ibid.

[29] Ibid.

[30] Ibid.

[31] Ibid.

[32] Ibid.

State CEQA Guidelines Section 15064.4(b) states that, when assessing the significance of impacts from GHG emissions, a lead agency should consider 1) the extent to which a project may increase or reduce GHG emissions compared with existing conditions, 2) whether a project's GHG emissions would exceed a threshold of significance that a lead agency has determined to be applicable to a project, and 3) the extent to which a project would comply with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. These three factors are considered when identifying an appropriate approach for determining the significance of the Project's construction and operational GHG emissions, as discussed below.

Construction-generated Emissions of Greenhouse Gases

BAAQMD's 2022 CEQA Air Quality Guidelines and the BAAQMD Justification Report do not identify a GHG emission threshold for construction-related emissions. Instead, the BAAQMD 2022 CEQA Air Quality Guidelines recommend that GHG emissions from construction be quantified and disclosed and that a determination regarding the significance of the GHG emissions be made with respect to whether a project would be consistent with the State's emission reduction goals. BAAQMD further recommends incorporation of best management practices (BMPs) to reduce GHG emissions during construction, as feasible and applicable. This approach is used here to evaluate the Project's construction-generated emissions.

Operational Emissions of Greenhouse Gases

According to the BAAQMD 2022 Air Quality Guidelines and BAAQMD Justification Report, BAAQMD recommends that land use projects use the approach of the California Supreme Court in *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) (62 Cal.4th 204), which specifies that a project must evaluate its effect on efforts to meet the State's long-term climate goals. As the California Supreme Court held in that case, a project that meets the State's long-term climate goals can be found to have a less-than-significant impact on climate change under CEQA. Specifically, if a project would contribute its "fair share"[33] of what will be required to achieve the State's long-term climate goals, then a reviewing agency can find that the impact would not be significant because the project would help to solve the problem of global climate change (62 Cal.4th 220–223).[34] Applying this approach, BAAQMD has found that a new land use development project being built today needs to incorporate the design elements listed below to contribute its "fair share" toward meeting the 2030 SB 32 target and the goal of carbon neutrality by 2045 or be consistent with a local GHG reduction strategy, or CAP, as shown in Table 3.4-5.

[33] The BAAQMD defines "fair share" as the design elements that need to be incorporated into a project to lay the foundation for achieving carbon neutrality by 2045. These design elements are elements that the project has influence or control over. For example, becoming carbon neutral by 2045 will require California's electrical power generators to shift to 100 percent carbon-free energy resources, which is not something that can be controlled through the design of new land use projects and would not be a part of a project's fair share. Other sources that would not be part of the "fair share" is vehicle fleet mix or indirect offsite emissions (e.g., methane emissions from wastewater or solid waste).

[34] Bay Area Air Quality Management District. 2022. *Appendix B: Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans.* April. Available: https://www.baaqmd.gov/~/ media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en. Accessed: January 30, 2023.

Table 3.4-5. BAAQMD GHG Thresholds for Land Use Projects

Thresholds for Land Use Projects (Must Include A or B)
A. Projects must include, at a minimum, the following project design elements:
1. Buildings
a. The project will not include natural gas appliances or natural gas plumbing (in both residential and non-residential development).
b. The project will not result in any wasteful, inefficient, or unnecessary electrical usage, as determined by the analysis required under Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.
2. Transportation
a. Achieve compliance with EV requirements in the most recently adopted version of CALGreen Tier 2.
b. Achieve a reduction in project-generated VMT (below the regional average, consistent with the current version of the California Climate Change Scoping Plan [currently 15 percent]) or meet a locally adopted SB 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research Technical Advisory on Evaluating Transportation Impacts in CEQA:
i. Residential projects: 15 percent below existing VMT per capita
ii. Office projects: 15 percent below existing VMT per employee
iii. Retail projects: No net increase in existing VMT
B. Projects must be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

Source: Bay Area Air Quality Management District. 2022. *Appendix B: Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans.* April. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en. Accessed: January 30, 2023.

If a project is designed and built to incorporate the design elements in Table 3.4-5 (Threshold Option A) or is consistent with a local GHG reduction strategy under Section 15183.5 of the State CEQA Guidelines (Threshold Option B), then it would contribute a portion of what is necessary to achieve California's long-term climate goals—its "fair share"—and would not make a cumulatively considerable contribution to global climate change. If a project does not incorporate these design elements and is not consistent with a local GHG reduction strategy, then it should be found that it would result in a significant climate impact because it would hinder the State's efforts to address climate change.

As discussed above and demonstrated in Table 3.4-2, the City's 2022 CAP satisfies the tiering requirements established in Section 15183.5 of the State CEQA Guidelines and therefore can be used to determine the significance of an individual project's GHG emissions. In addition, Appendix C to the BAAQMD 2022 Air Quality Guidelines, Guidance for GHG Reduction Strategies, explains how a CAP can demonstrate alignment with the State's near- and long-term GHG emissions reduction targets.[35] BAAQMD states that plans "should demonstrate how the community… will meet the 2030 target for its overall community GHG emissions."[36] In addition, to support the State's 2045 carbon neutrality goal, a CAP should "demonstrate that it will achieve as ambitious emission reductions as technologically and financially feasible by 2045, minimizing the residual amount of emissions needed to close the gap to carbon neutrality… by including a robust implementation strategy that maximizes the likelihood that the full GHG reduction strategy will be implemented."[37] Thus, a CAP is not required to demonstrate that carbon neutrality will be achieved by 2045 in order to align with the State's carbon neutrality goal, provided it

[35] Bay Area Air Quality Management District. 2022. *Appendix C: Guidance for GHG Reduction Strategies.* April. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en. Accessed: January 30, 2023.

[36] Ibid.

[37] Ibid.

requires ambitious emissions reductions to minimize the gap in carbon neutrality to the extent feasible. Consistent with these recommendations, the most recent update to the City's CAP sets GHG emissions reduction targets of 40 percent of 1990 levels by 2030 and 80 percent of 1990 levels by 2035; it also supports the State's goal of achieving carbon neutrality by 2045. Specifically, the CAP "includes innovative strategies and actions to significantly reduce greenhouse gas emissions into the future" but notes that "technological constraints may prevent reducing emissions to absolute zero by 2045" and offsets will be needed to achieve carbon neutrality.[38] Nonetheless, because the City's CAP aggressively pursues GHG reductions with "mandatory measures that quantitatively get the community as close to carbon neutrality as possible by 2045 and include a robust implementation and monitoring strategy," it aligns with BAAQMD guidance by supporting the State's carbon neutrality target, despite the CAP concluding that additional external actions will be needed to meet the State's carbon neutrality goal.[39]

Because the City's CAP satisfies the tiering requirements established in Section 15183.5 of the State CEQA Guidelines, demonstrates how the community would meet the State's 2030 target of 40 percent below 1990 levels, and supports the State's 2045 carbon-neutrality goal, this analysis evaluates the Project's consistency with the City's CAP to determine the significance of the Project's GHG emissions relative to the State's 2030 SB 32 climate target and the State's 2045 carbon-neutrality target.[40]

In addition to using BAAQMD's Threshold Option B to determine whether a project has met its "fair-share" reduction, the BAAQMD 2022 Air Quality Guidelines state that projects should evaluate and discuss their GHG emissions from the timeframe in the CAP and through 2045 and compare those emissions to baseline emissions. Such analysis is thus provided below, not to determine the Project's significance but for informational purposes and pursuant to BAAQMD guidance.

Methods for Analysis

Construction

Short-term GHG emissions generated by Project construction were calculated using methodologies consistent with the 2022 version of the California Emissions Estimator Model (CalEEMod),[41] as recommended by BAAQMD and other air districts in California. Modeling was based on Project-specific information, such as information regarding demolition, building size, the area to be graded, expected duration of construction, and the area to be paved, where available; assumptions regarding typical construction activities; and default values from CalEEMod, which consider a project's location and land use type. Detailed model assumptions and inputs for the calculations can be found in Appendix 3.3-1.

[38] City of Santa Clara. 2022. *City of Santa Clara Climate Action Plan*. Available: https://www.santaclaraca.gov/home/showpublisheddocument/77735/637950494944230000. Accessed: January 30, 2023.

[39] Bay Area Air Quality Management District. 2022. *Appendix C: Guidance for GHG Reduction Strategies.* April. Available: https://www.baaqmd.gov/~/ media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en. Accessed: January 30, 2023.

[40] The City's 2022 Climate Action Plan Compliance Checklist (CAP Checklist) notes that projects involving General Plan amendments may not use the CAP Checklist and should quantify emissions. Although the Project involves a General Plan amendment, the CAP Checklist measures are nonetheless applicable to the Project and, if implemented, would reduce Project-generated GHG emissions..

[41] California Air Pollution Control Officers Association. 2022. *CalEEMod, Version 2022.1*. Available: http://www.caleemod.com/. Accessed: January 30, 2023.

Operations

During operation, the largest source of GHG emissions would be motor vehicles traveling to and from the Project site. These emissions were estimated using traffic data (e.g., annual VMT and the number of daily vehicle trips) provided by the Project's traffic consultant, along with CalEEMod, which uses vehicle emission factors from CARB's EMFAC2021 model. Traffic data were entered into the mobile-source module of CalEEMod to determine the emissions of GHGs resulting from Project-related vehicle trips.

GHG emissions associated with water consumption, electricity use, solid waste generation, landscape maintenance, refrigerant use, and emergency generator operation were estimated using the corresponding modules of CalEEMod. Quantities for water consumption, electricity use, and refrigerant use were provided by the Project Sponsor and can be found Appendix 3.3-1. As described in Chapter 2, *Project Description*, although the City prohibits new connections to natural gas in most construction under its recently adopted Reach Code, the code contains limited exceptions for uses. The Project may request approval to use natural gas for lab and R&D aspects of the Project, provided they meet the requirements of the City's Reach Code. As such, this analysis evaluates potential GHG emissions resulting from the use of natural gas onsite for limited lab/R&D uses. Assumptions regarding the Project's potential natural gas consumption were provided by the Project Sponsor and quantified in CalEEMod. In addition, the Project would include onsite solar power generation through the installation of rooftop solar panels, providing approximately 13 percent of the electricity needed for the Project's onsite electricity use. For waste generation quantities, the CalEEMod default values were used. All GHG calculations and modeling data are provided in Appendix 3.3-1.

Based on information provided by the Project Sponsor, there may be minor changes in the distribution of the Project's non-residential uses (i.e., office/R&D, retail, childcare, and community amenity space) between Areas A, B, C, and D. To account for potential changes in the distribution of the Project's non-residential land use types between Areas A, B, C, and D, this analysis conservatively applies a 5 percent buffer to each of the proposed non-residential land uses. Increases in land use sizes corresponding to the 5 percent buffer result in increased emissions from energy consumption, water consumption, and waste generation. This is a conservative approach because the total amount of new building space would not change; rather, there would be only minor changes in the distribution of non-residential uses between Areas A, B, C, and D. The 5 percent buffer was not applied to the Project's mobile- and stationary-source emissions calculations because the total number of vehicle trips, total VMT, and emergency generator activities would not be affected by minor changes in the distribution of non-residential land uses between Areas A, B, C, and D.

Impacts and Mitigation Measures

Impact GHG-1: Generate GHG Emissions during Construction and Operation. With implementation of mitigation, the Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. (Less than Significant with Mitigation)

Construction

Project-related construction activities would include the demolition of buildings and features at the Project site and the construction of a new mixed-use development. These activities would require the operation of mobile and stationary construction equipment as well as on-road vehicles, including haul trucks for demolition debris removal, vendor trucks for deliveries, and employee vehicles, which would temporarily generate GHG emissions from exhaust. Construction-related GHG emissions from each

specific source vary substantially, depending on the specific construction phase, daily construction operations, types of equipment, and number of personnel. Based on modeling conducted with CalEEMod, it is estimated that Project-related construction would generate approximately 42,010 metric tons of carbon dioxide equivalent ($MTCO_2e$) over the construction period (2025–2034). Emissions would range from 701 $MTCO_2e$ per year in 2034 to 8,561 $MTCO_2e$ per year in 2030 (see Appendix 3.3-1 for detailed input parameters and modeling results). Table 3.4-6 shows the Project's estimated GHG emissions by construction year. The model output files and reports are provided in Appendix 3.3-1.

BAAQMD has not established a quantitative threshold for assessing construction-related GHG emissions, noting that they represent a very small portion of a project's lifetime GHG emissions.[42] As noted in the BAAQMD 2022 CEQA Air Quality Guidelines, BAAQMD recommends evaluating whether construction activities would conflict with statewide emission reduction goals, based on whether feasible BMPs for reducing GHG emissions would be implemented.[43] If a project fails to implement feasible BMPs identified by BAAQMD, its GHG emissions could conflict with statewide emission goals and represent a cumulatively considerable contribution to climate change, which would be a potentially significant impact. As such, before the inclusion of feasible BAAQMD-identified BMPs, the Project's construction-generated GHG emissions would be considered ***significant***.

Table 3.4-6. Greenhouse Emissions by Construction Year ($MTCO_2e$ per year)

Construction Year	Annual GHG Emissions[a] ($MT\ CO_2e$)
2025	1,608
2026	2,885
2027	2,699
2028	3,922
2029	6,790
2030	8,561
2031	7,871
2032	4,995
2033	1,978
2034	701
Total Construction Emissions	42,010
Annual Average Construction Emissions	4,201

Source: See Appendix 3.3-1 for detailed input parameters and modeling results.
Notes: $MTCO_2e$ = metric tons of carbon dioxide equivalent
[a] Values may not add up because of rounding.

MITIGATION MEASURE. Mitigation Measure GHG-1.1 requires implementation of applicable construction-related measures from the 2017 Scoping Plan (Appendix B) and the BAAQMD 2022 Air Quality Guidelines to reduce the level of GHGs associated with construction of the Project and avoid any conflict with statewide GHG reduction goals. Because Mitigation Measure GHG-1.1 would require

[42] Bay Area Air Quality Management District. 2022. *Appendix B: Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans*. April. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en. Accessed: January 31, 2023.

[43] Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act Air Quality Guidelines.* May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: January 31, 2023.

implementation of all construction-related GHG reduction measures recommended by BAAQMD and CARB,[44] construction of the Project would not generate GHG emissions that could have a significant impact on the environment. This impact would be ***less than significant with mitigation***.

GHG-1.1 Require Implementation of Scoping Plan and BAAQMD-Recommended Best Management Practices to Reduce Construction GHG Emissions. The Project Sponsor shall require its contractors, as a condition of contracts (e.g., standard specifications), to reduce construction-related GHG emissions by implementing BAAQMD's recommended BMPs, including, but not limited to, the measures listed below, based on BAAQMD's 2022 CEQA Air Quality Guidelines.[45] The Project Sponsor shall submit evidence of compliance to the City prior to permit issuance.

- Use zero-emission and hybrid-powered equipment to the greatest extent possible, particularly if emissions are occurring near sensitive receptors or within a Bay Area Air Quality Management District–designated Community Air Risk Evaluation (CARE) area or Assembly Bill 617 community.[46]
- Require all diesel-fueled off-road construction equipment to be equipped with U.S. Environmental Protection Agency Tier 4 Final engines or better.
- Require all on-road heavy-duty trucks to be zero emissions or meet the most stringent model-year emissions standard where feasible.
- Minimize idling time, either by shutting equipment off when not in use or reducing the time of idling to no more than 2 minutes. Provide clear signage that posts this requirement for workers at the entrances to the site.
- Use California Air Resources Board–approved renewable diesel fuel in off-road construction equipment and on-road trucks where feasible.
- Use U.S. Environmental Protection Agency SmartWay-certified trucks for deliveries and equipment transport where feasible.
- Require all construction equipment to be maintained and properly tuned in accordance with the manufacturer's specifications.
- Where grid power is available, prohibit portable diesel engines and provide electrical hook-ups for electric tools, such as saws, drills, and compressors; use electric tools whenever feasible.
- Where grid power is not available, use alternative fuels, such as propane or solar electrical power, for generators at construction sites whenever feasible.
- Encourage and provide carpools, shuttle vans, transit passes, and/or secure bicycle parking to construction workers and offer meal options onsite or shuttles to nearby meal destinations for construction employees.
- Reduce electricity use in the construction office by using LED bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones.

[44] The current scoping plan, adopted in 2022, does not contain construction-related measures analogous to those in the 2017 scoping plan.

[45] Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act Air Quality Guidelines.* May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: January 31, 2023.

[46] The Project site is not located within a CARE or AB 617 community.

- Minimize energy used during site preparation by deconstructing existing structures to the greatest extent feasible.
- Recycle or salvage nonhazardous construction and demolition debris, with a goal of recycling at least 15 percent more, by weight, than the diversion requirement in Title 24.
- Use locally sourced or recycled materials for construction (goal of at least 20 percent, based on cost of building materials and volume of roadway, parking lot, sidewalk, and curb materials).
- Use low-carbon concrete, minimize the amount of concrete used, and produce concrete on-site where feasible if it is more efficient than transporting ready-mix.
- Develop a plan to efficiently use water for adequate dust control because substantial amounts of energy can be consumed by pumping water.
- Include all requirements in applicable bid documents, purchase orders, and contracts, with successful contractors demonstrating the ability to supply compliant on- or off-road construction equipment prior to any ground-disturbing and construction activities.

Operation

The predominant source of emissions during operation of the Project would be mobile-source GHG emissions from vehicles traveling to and from the Project site Other sources of emissions would be associated with landscaping equipment; emergency diesel generators, which would be operated periodically for testing; onsite electricity consumption; offsite electricity consumption from supplying water as well as conveying and treating wastewater; and the generation of solid waste.

GHG emissions associated with development of the Project were estimated using CalEEMod methodologies and emission factors from EMFAC2021. Quantities for water consumption, electricity use, and refrigerant use were provided by the Project Sponsor prior to preparation of this analysis and reviewed by the EIR consultant team (see Appendix 3.3-1). As previously described, the Project may use limited amounts of natural gas onsite, as allowed under the City's Reach Code; therefore, GHG emissions associated with the Project's potential onsite consumption of natural gas are included in the emissions estimates provided below. In addition, emissions were modeled under the assumption that 13 percent of the Project's electricity would be generated by onsite solar power, per the proposal for onsite solar power generation. The carbon-intensity emissions factor for Silicon Valley Power, which would supply electricity to the Project site, is included in CalEEMod for multiple years. For the Project analysis, the Silicon Valley Power emissions factor used to model emissions represents the most distant forecast year (2030), which accounts for the higher number of renewable resources used to provide electricity in the future.[47] This results in a conservative assessment of post-2030 emissions because more renewable resources will come online over time; thus, Silicon Valley Power emissions will decrease over time. Consistent with Mitigation Measure AQ-2.5 from Section 3.3, *Air Quality*, emissions were modeled under the assumption that diesel-powered landscape equipment would be replaced with zero-emission equipment. In addition, the existing uses on the Project site that generate emissions would be removed with implementation of the Project. As such, the net effect of the Project would be the difference between existing uses and Project uses. Net

[47] In CalEEMod, Project emissions were modeled for 2034; however, the farthest forecast year for Silicon Valley Power in CalEEMod is 2030. As such, CalEEMod uses the 2030 emission factor for all modeling years after 2030. This approach is conservative because the Silicon Valley Power emission factor would be lower than the 2030 factor in 2034 because of increasing requirements for renewable resources. Consequently, the energy emissions shown in this analysis may be higher than what will actually occur.

Project emissions were calculated by subtracting existing-year 2018 operational GHG emissions from full-buildout 2034 conditions.[48]

As explained above, although operational GHG emissions from the Project are not used to evaluate the Project's GHG impacts, annual emissions generated by Project operation were estimated for informational purposes, as summarized below, in accordance with BAAQMD 2022 Air Quality Guidelines. In the first year after full buildout (2034), Project operations would be expected to generate the highest level of emissions. Emissions in subsequent years would continually decrease as the statewide vehicle fleet transitions to newer, lower-emitting vehicles. Table 3.4-7 shows estimated annual GHG emissions associated with existing-year 2018 and full-buildout 2034 conditions as well as net emissions. The model output files and reports are provided in Appendix 3.3-1.

As shown in Table 3.4-7, the Project is estimated to generate net annual GHG emissions of approximately 45,566 $MTCO_2e$ during its first year after full buildout, which is projected to be in 2034. As noted above, these emissions are not used to evaluate GHG impacts directly but are included here for informational purposes. A discussion of the Project's consistency with BAAQMD Threshold Option B and the City's CAP, which are used to evaluate the significance of Project impacts, is provided below.

Table 3.4-7. Operational Greenhouse Emissions by Sector for 2034 (MT CO_2e)

	Annual GHG Emissions[a] (MT CO_2e)		
Emissions Source	**Existing Emissions**	**Project Emissions**	**Net Emissions**
Mobile sources	277	37,162	36,885
Area sources	1	147	146
Energy use	187	6,021	5,834
Water use	22	296	274
Solid waste generation	12	812	800
Refrigerants	2	1,393	1,391
Stationary sources	-	236	236
Total Operational Emissions	*501*	*46,066*	*45,566*

Source: See Appendix 3.3-1 for detailed input parameters and modeling results.
Notes: $MTCO_2e$ = metric tons of carbon dioxide equivalent
[a] Values may not add up because of rounding.

City of Santa Clara Climate Action Plan

As discussed above, this analysis evaluates the Project's consistency with the City's CAP to determine the significance of the Project's GHG emissions relative to the State's 2030 SB 32 climate target and its 2045 carbon neutrality goal.[49] The *City of Santa Clara 2022 Climate Action Plan Compliance Checklist* outlines

[48] As noted above under *Methods for Analysis*, it was assumed that mobile-source emissions from existing uses would be zero because of the uncertainty regarding the vacancy of the uses and the unavailability of data for trip generation rates and associated VMT. This is a conservative assumption because it is known that mobile-source emissions exist under current operations on the Project site. Other existing sources of operational emissions were subtracted from full-buildout 2034 emissions.

[49] The CAP Checklist notes that projects involving General Plan amendments may not use the CAP Checklist and should quantify emissions. Although the Project involves a General Plan amendment, the CAP Checklist measures are nonetheless applicable to the Project and, if implemented, would reduce Project-generated GHG emissions. As such, this analysis evaluates the Project's consistency with the CAP Checklist, along with the

the CAP actions that are applicable to new development and can be used to demonstrate conformance with the CAP. The CAP checklist was completed for the Project using information provided by the Project Sponsor (see Appendix 3.4).

As described above, the predominant source of emissions during Project operation would be vehicles traveling to and from the Project site. The Project would be consistent with the transportation-related CAP measures, such as those related to EV charging, implementation of the Pedestrian Master Plan and Bicycle Master Plan, Transportation Demand Management (TDM) plan requirements, transit-oriented development, Transportation Analysis Policy compliance, and telework. Specifically, the Project would comply with the City's Final Transportation Analysis Policy because it would qualify as a transit-supportive project and thus be exempt from a detailed VMT analysis. The Project would also comply with the EV charging requirements specified in the City's Reach Code because 25 percent and 75 percent of the residential parking spaces would be Level 2 Ready and lower-power Level 2 Ready, respectively.[50] In addition, 35 percent of the non-residential parking spaces would be equipped with Level 2 EVSE, and 35 percent of the non-residential parking spaces would be Level 2 Capable. Moreover, the Project would implement a TDM plan, including measures expected to achieve the CAP-required VMT reductions for residential and non-residential uses. As described in the Project's rezoning application, measures that may be included in the TDM plan include:

- Privately operated long-haul commuter shuttle service for office workers with onsite shuttle stops.
- Participating in City organized/operated shuttle service to Caltrain and Bay Area Rapid Transit (BART) stations with onsite shuttle stops available to all site workers and residents.
- Transit subsidy for office workers.
- Rideshare matching program.
- "Guaranteed ride home" program for all office workers.
- Preferential parking for carpools and vanpools.
- Unbundled parking for market-rate residential units.
- Participation in regional bikeshare and scooter program and/or establishment of onsite bicycle and scooter fleet.
- Bike repair stations and ample bicycle parking.
- Showers and lockers provided in office buildings.
- Real-time transit information displayed on screens throughout the site.
- Onsite parking spaces reserved for carshare service(s) (e.g., ZipCar or equivalent provider).
- Dedicated curb space for ride-hail and taxi-service passenger loading.
- Onsite transportation coordinator.
- Website and marketing program to disseminate information on commute options.
- High-speed internet infrastructure to enable telecommuting.

BAAQMD land use Threshold Option A design elements for informational purposes, to provide a comprehensive assessment of GHG impacts.

[50] It should be noted that the Project would exceed the CAP's EV requirements for residential uses because 15 percent of the proposed residential parking spaces would be equipped with Level 2 EVSE.

- Distribution of a TDM information packet to new employees and residents.
- Onsite bicycle and pedestrian network linking buildings to transit stations and nearby trails.

Overall, the Project would support the 2022 CAP's strategy to advance sustainable land use. As noted above, the proposed density at the Project site would serve to reduce the physical footprint required to live, socialize, and work, thereby decreasing the land, water, and energy required per capita. In addition, the Project would also convert much of the current hardscape into open spaces, urban nature areas, recreational fields, gardens, plazas, and streetscapes that would promote stormwater management and habitat restoration. Finally, the following programs and strategies, or their equivalents, are targeted to promote sustainability at the Project site:

- CALGreen (Title 24, Part 11);
- Leadership in Energy and Environmental Design (LEED) Neighborhood Development (ND) Silver certification, or equivalent;
- LEED ND Gold-certified offices and LEED Silver-certified residences, or equivalent, which would include the following:
    - Reductions in energy use from LEED v4 baseline,
    - Reductions in potable water compared with LEED v4 baseline, and
    - Construction waste diversion from landfills.

The City's CAP also contains measures aimed at reducing GHG emissions from other sources of emissions, such as energy consumption, water use, and waste generation. The Project would comply with the required CAP measures aimed at reducing emissions from these sources, as shown in the CAP checklist provided in Appendix 3.4. Thus, as shown in the CAP checklist provided in Appendix 3.4, the Project would be consistent with all required and applicable measures.

The 2030 GHG reduction target in the City's CAP is consistent with the GHG reduction goal of SB 32; therefore, because the Project would be consistent with the City's CAP, it would also be consistent with the GHG reduction goals of SB 32. In addition, because the City's CAP demonstrates a path to carbon neutrality to the extent technologically feasible, the Project's consistency with the CAP also demonstrates alignment with the State's 2045 carbon neutrality goal. The Project's alignment with the SB 32 and 2045 carbon neutrality goals indicates that the Project would not generate GHG emissions that would have a significant impact on the environment. As a result, the Project's GHG impact with respect to the State's near-term (2030) and long-term (2045) targets would be ***less than significant***. In addition, the Project would be designed to meet many of the BAAQMD 2022 Air Quality Guidelines–suggested design standards for land use projects, thereby further ensuring that the Project would contribute its "fair share" reduction in GHG emissions.

- Section 3.5, *Energy*, found that the Project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources with implementation of Mitigation Measure GHG-1.1. Furthermore, the Project would include several design features that would minimize wasteful or inefficient energy use directly, including, but not limited to, a low-energy building design, optimized building orientation to reduce energy use, LED light fixtures, high-efficiency fans and pumps, and onsite renewable energy generation through the use of solar panels.
- The Project would achieve compliance with electric-vehicle requirements in the most recently adopted version of CALGreen Tier 2. For residential multi-family buildings, CALGreen Tier 2 requires 40 percent and 15 percent of parking spaces to be EV ready and equipped with Level 2 Electric-Vehicle

Supply Equipment (EVSE), respectively. For non-residential projects, CALGreen Tier 2 requires 45 percent of parking spaces to be EV capable and 33 percent of EV capable parking to be equipped with EVSE. The Project would go beyond the mandatory CALGreen EV requirements to meet the City's adopted Reach Code as well as achieve the CALGreen Tier 2 EV charging requirements for residential land uses. Specifically, 25 percent and 75 percent of the parking provided for the Project's residential uses would be Level 2 EV ready and low-power Level 2 EV ready, respectively, and 15 percent of the provided residential parking spaces would be equipped with Level 2 EVSE. For the Project's non-residential parking, 35 percent would be equipped with Level 2 chargers; an additional 35 percent would be EV capable. Therefore, 70 percent of the spaces would be considered EV capable. The Project would meet the non-residential Tier 2 requirement that calls for 45 percent of the spaces to be EV capable because 70 percent of the spaces would be EV capable. Thus, the proposed number of parking spaces with EV chargers would exceed CALGreen voluntary requirements for non-residential uses, and the Project would meet the CALGreen Tier 2 residential voluntary requirement calling for 15 percent of parking spaces to be equipped with Level 2 EVSE.

- As described in Section 3.2, *Transportation*, the Project would qualify as a transit-supportive project, per the City's Final Transportation Analysis Policy,[51] and as a result, it is presumed that the Project would have a less-than-significant impact on VMT. The Project would establish a new mixed-use neighborhood that would provide a transit-oriented "live, work, socialize, and recreate" environment and promote transportation-efficient land use patterns. Finally, the Project would explore alternative transit methods, including bicycle- and pedestrian-friendly streets, connections to existing bicycle networks and public transit, bicycle parking, showers and lockers, low-emission car-share systems, preferential carpool/vanpool parking, and EV charging stations. Because the Project would qualify as a transit-supportive project, the Project would have a less-than-significant impact on VMT; it can be assumed that the Project would achieve a 15 percent reduction in VMT.
- The Project would be consistent with the City's Reach Code, which allows natural gas for R&D/lab uses; it would not otherwise include natural gas appliances or natural gas plumbing in residential or other uses at the Project site.

Conclusion

As discussed above, the Project's construction-related GHG emissions would be less than significant with the implementation of Mitigation Measure GHG-1.1. Regarding the Project's operational GHG emissions, the Project would be consistent with all applicable and required CAP checklist measures and therefore would be consistent with the City's 2022 CAP. As a result, the Project's operational GHG emissions would be ***less than significant***.

Impact GHG-2: Consistency with Applicable Plans and Policies. The Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs. (Less than Significant)

Construction and Operation

As explained in the *Regulatory Setting* above, CARB's 2022 Scoping Plan outlines the main strategies for keeping California on track with respect to meeting its SB 32 GHG reduction target, with emissions at least 40 percent below 1990 emissions by 2030, carbon neutrality achieved by 2045, and anthropogenic

[51] City of Santa Clara. 2020. *Resolution and Final Transportation Analysis Policy.* Approved: June 23, 2020. Available: https://www.santaclaraca.gov/home/showpublisheddocument/71449/637459525139300000. Accessed: January 31, 2023.

emissions reduced to a level 85 percent below 1990 levels.[52]Appendix D to CARB's 2022 Scoping Plan states that, in determining a project's consistency with the scoping plan, consistency with an "adequate, geographically specific GHG reduction plan such as a CEQA-qualified CAP" is adequate. As a result, this analysis evaluates the Project's consistency with the City's CAP to determine whether the Project would conflict with the State's plan for meeting its GHG reduction targets.

Consistency with Santa Clara CAP

As discussed above, the *City of Santa Clara 2022 Climate Action Plan Compliance Checklist* outlines the CAP actions that are applicable to new development and that can be used to demonstrate conformance with the CAP. As discussed above, the CAP checklist was completed for the Project using information provided by the Project Sponsor (see Appendix 3.4).[53] As shown in the CAP checklist, the Project would be consistent with all required and applicable measures. Furthermore, as described in Impact GHG-1, the Project would align with CAP strategies to reduce GHG emission from transportation, the predominant source of emissions during Project operation, and other sources of emissions, such as energy consumption, water use, and waste generation. Therefore, operation of the Project would not conflict with implementation of the City's CAP or attainment of local GHG reduction targets, which are designed to attain the statewide GHG targets for 2030 and 2045 mandated by SB 32 and AB 1279, respectively.

Consistency with the CARB 2022 Scoping Plan

As explained in the *Regulatory Setting*, CARB's 2022 Scoping Plan outlines the main strategies for keeping California on track and able to meet its SB 32 GHG reduction target (i.e., reduce GHG emissions to at least 40 percent below 1990 levels by 2030), achieve carbon neutrality by 2045, and reduce anthropogenic emissions to 85 percent below 1990 levels.[54] Regarding project-level GHG analyses, Appendix D to CARB's 2022 Scoping Plan, *Local Actions*, notes:

> When jurisdictions have a CEQA-qualified CAP, an individual project that complies with the strategies and actions within a CEQA-qualified CAP can tier and streamline its project-specific CEQA GHG analysis to make a determination "that a project's incremental contribution to a cumulative [GHG] effect is not cumulatively considerable" (CEQA Guidelines Sections 15064.4 (b)(3) and 15183.5).[55]

As discussed above and demonstrated in Table 3.4-2, the City's 2022 CAP satisfies the tiering requirements established in Section 15183.5 of the State CEQA Guidelines and therefore can be used to determine the significance of an individual project's GHG emissions. Moreover, the City's 2022 CAP sets GHG emissions reduction targets of 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2035, consistent with SB 32, and supports the State's goal of achieving carbon neutrality by 2045.

Appendix D to CARB's 2022 Scoping Plan notes that local governments should consider three priority areas, transportation electrification, VMT reductions, and building decarbonization, when preparing a

[52] California Air Resources Board. 2022. *Draft 2022 Scoping Plan Update*. November. Available: https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf. Accessed: January 30, 2023.

[53] The City's 2022 Climate Action Plan Compliance Checklist (CAP Checklist) notes that projects involving General Plan amendments may not use the CAP Checklist and should quantify emissions. Although the Project involves a General Plan amendment, the CAP Checklist measures are nonetheless applicable to the Project and, if implemented, would reduce Project-generated GHG emissions.

[54] California Air Resources Board. 2022. *2022 Scoping Plan Update*. November. Available: https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf. Accessed: October 4, 2023.

[55] California Air Resources Board. 2022. *2022 Scoping Plan Update: Appendix D Local Actions*. November. Available: https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf. Accessed: October 4, 2023.

CEQA-qualified CAP. In line with this guidance, the City's 2022 CAP contains several measures related to transportation electrification, VMT reductions, and building decarbonization.

Because the City has adopted a CEQA-qualified CAP, incorporating strategies related to the three priority areas outlined in Appendix D to CARB's 2022 Scoping Plan, this analysis evaluates the Project's alignment with CARB's 2022 Scoping Plan, based on its consistency with the City's CAP. As described above and shown in the CAP Checklist completed for the Project, provided as Appendix 3.4-1, the Project would be consistent with all required and applicable measures, including those related to transportation electrification, VMT reductions, and building decarbonization. As a result, the Project would be consistent with the City's CAP, thereby aligning with the GHG emissions reduction strategies outlined in CARB's 2022 Scoping Plan, and would not conflict with CARB's 2022 Scoping Plan.

Appendix D to CARB's 2022 Scoping Plan, *Local Actions*, also identifies key project attributes that empirical evidence has shown to reduce operational GHG emissions while simultaneously advancing fair housing. CARB concludes that "[r]esidential and mixed-use projects that have all of the key project attributes in Table 3 [Key Residential and Mixed-Use Project Attributes that Reduce GHGs] should accommodate growth in a manner consistent with State GHG reduction and equity prioritization goals."[56] This analysis also evaluates the Project's consistency with the scoping plan–identified key project attributes to provide a comprehensive assessment of the Project's GHG impact. The Project's consistency with these attributes is discussed in Table 3.4-8.

Table 3.4-8. Project Consistency with the CARB 2022 Scoping Plan Key Project Attributes

Project Attribute	Project Consistency
Transportation Electrification	
Provides EV charging infrastructure that, at a minimum, meets the most ambitious voluntary standard in the California Green Building Standards Code at the time of project approval.	**Consistent**. Currently, the most ambitious voluntary standard in the CALGreen Code would be the voluntary Tier 2 standards. As discussed above under Impact GHG-1, the Project would meet the voluntary Tier 2 standards for EV charging infrastructure under the 2022 CALGreen Code. As such, the Project would be consistent with this attribute.
VMT Reduction	
Is 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).	**Consistent**. The Project proposes infill mixed-use development in an existing urbanized and transit-rich area, thereby supporting local, regional, and State mobility and GHG reduction objectives to reduce VMT and infrastructure costs. As such, the Project would be consistent with this attribute.
Does not result in the loss or conversion of natural and working lands.	**Consistent**. The Project site is in an existing urbanized area and currently occupied by four light industrial buildings and a paved surface parking lot. As such, the Project would not result in the loss or conversion of natural or working lands and would be consistent with this attribute.
Consists of transit-supportive densities (minimum of 20	**Consistent**. The Project would convert an underutilized, single-use 48.6-acre site to a pedestrian-oriented, high-density mixed-use

[56] California Air Resources Board. 2022. *2022 Scoping Plan Update, Appendix D, Local Actions*. November. Available: https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf. Accessed: January 30, 2023.

Project Attribute	Project Consistency
residential dwelling units per acre), or Is in proximity to existing transit stops (within a half mile), or Satisfies more detailed and stringent criteria specified in the region's SCS.	development. Moreover, the Project site is within a transit-rich area[57] and adjacent to current and future transit lines and bicycle corridors, which are within the existing urban footprint and connected to the surrounding community. Lastly, as described in Section 3.2, *Transportation*, the Project qualifies as a transit-supportive project, per the City's Final Transportation Analysis Policy.[58] In addition, the Project is near an existing light rail stop and within a 0.5 mile of a high-quality transit corridor on Great America Parkway. As such, the Project would be consistent with this attribute.
Reduces parking requirements by: Eliminating parking requirements or including maximum allowable parking ratios (i.e., the ratio of parking spaces to residential units or square feet), or Providing a residential parking supply at a ratio of less than one parking space per dwelling unit, or For multi-family residential development, requiring parking costs to be unbundled from costs to rent or own a residential unit.	**Consistent**. The customary and generally applicable parking ratios set forth in the City Code would ordinarily prescribe approximately 11,900 parking spaces for a development with the Project's scale and land uses. However, the Project would provide approximately 9,400 parking spaces for the proposed onsite uses. The Project Sponsor would also implement parking and TDM programs as well as strategies that would reduce parking demand and encourage alternatives to travel in single-occupancy vehicles. In addition, because of the mixed-use nature of the proposal , a shared parking strategy would be applied to ensure that the Project would not result in an overabundance of parking that may not be needed in the future. The shared parking design would allow the various uses and tenants on the Project site to share parking areas rather than assign or reserve parking by use. Because the Project would provide less parking than the parking ratios set forth in the City Code and parking would be shared among onsite uses rather than assigned, the Project would be consistent with this attribute.
At least 20 percent of units included are affordable to lower-income residents.	**Consistent**. Under the Project, 15 percent of the homes would be affordable, which would not meet the threshold of 20 percent for affordable units. However, the Project would be consistent with the City's Affordable Housing Ordinance and Inclusionary Zoning Requirements (Affordable Housing Ordinance), which became effective February 22, 2018.[59] The City's Affordable Housing Ordinance identifies locally specific inclusionary requirements for residential projects to provide a steady stream of affordable housing units and ensure the availability of affordable housing to moderate-, low-, very low-, and extremely low-income households. These requirements were informed by a nexus study outlining affordable housing policy recommendations for Santa Clara.[60] Thus, by

[57] Metropolitan Transportation Commission and Association of Bay Area Governments. 2021. *Plan Bay Area 2050 Growth Geographies*. January. Available: https://opendata.mtc.ca.gov/datasets/MTC::plan-bay-area-2050-growth-geographies/about. Accessed: January 30, 2023.

[58] City of Santa Clara. 2020. *Resolution and Final Transportation Analysis Policy.* Approved: June 23, 2020. Available: https://www.santaclaraca.gov/home/showpublisheddocument/71449/637459525139300000. Accessed: January 30, 2023.

[59] City of Santa Clara. 2022. *Affordable Housing Ordinance*. June. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/housing-community-services-division/renters/affordable-housing-requirements-update#:~:text=About%20the%20Affordable%20Housing%20Ordinance%20and%20Impact%20Fees,of%20the%20Affordable%20Housing%20Ordinance%20and%20Impact%20Fees. Accessed: January 30, 2023.

[60] Keyser Marston Associates, Inc. 2017. *Summary, Context Materials, and Recommendations Affordable Housing Nexus Studies*. March. Available: https://www.santaclaraca.gov/home/showpublisheddocument/51516/636259694110530000. Accessed: January 30, 2023.

Project Attribute	Project Consistency
	complying with the City's Affordable Housing Ordinance, the Project would include the level of affordable housing that the City has determined to be locally appropriate for the jurisdiction. It is important to note that CARB's 2022 Scoping Plan indicates that lead agencies can deviate from the exact requirements of project attributes. Lead agencies may determine, with adequate additional supporting evidence, that projects that incorporate some, but not all, of the key project attributes are consistent with the State's climate goals.[61]Although the Project would not meet the scoping plan–identified affordable housing standard, the Project would nevertheless support the State's fair-housing efforts by incorporating a level of affordable housing that would be appropriate for local conditions. As a result, the Project would be consistent with this attribute.
Results in no net loss of existing affordable units.	**Consistent**. The Project site is currently occupied by four light industrial buildings and a paved surface parking lot. The Project site currently does not provide any affordable units. After buildout, 15 percent of the Project's homes would be affordable. Thus, the Project would result in a net increase in affordable units. As such, the Project would be consistent with this attribute.
Building Decarbonization	
Uses all-electric appliances without any natural gas connections and does not use propane or other fossil fuels for space heating, water heating, or indoor cooking.	**Consistent**. As described above, the Project may include natural gas for limited R&D/lab uses, provided it is consistent with the City's Reach Code, but would not provide natural gas connections for residential uses and would not use propane or other fossil fuels for space heating, water heating, or indoor cooking. In addition, the quantity of natural gas used at the site for R&D/lab uses would be a small percentage of overall energy use. As such, the Project would be consistent with this attribute.

Source: California Air Resources Board. 2022. *2022 Scoping Plan*. Appendix D: Local Actions. November. Available: https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf. Accessed: January 30, 2023.

As discussed in Table 3.4-8, the Project may include appliances with natural gas connections for limited R&D/lab uses, provided such use is consistent with the City's Reach Code. However, the Project would not provide natural gas connections for residential uses and would not use propane or other fossil fuels for space heating, water heating, or indoor cooking. Thus, the Project would be consistent with CARB's 2022 Scoping Plan building decarbonization standard. Moreover, as discussed in Table 3.4-8, the Project would incorporate all other scoping plan–identified key project attributes. Although this analysis determines the Project's alignment with CARB's 2022 Scoping Plan, based on its consistency with the City's CAP, the Project's consistency with the scoping plan–identified key project attributes provides further evidence that the Project would not conflict with implementation of CARB's 2022 Scoping Plan or attainment of the statewide GHG targets for 2030 and 2045 mandated by SB 32 and AB 1279, respectively.

Because the Project would be consistent with the City's CAP, aligning with the GHG emissions reduction strategies outlined in CARB's 2022 Scoping Plan, the Project's impact with respect to applicable plans,

[61] California Air Resources Board. 2022. *Draft 2022 Scoping Plan Update, Appendix D, Local Actions*. November. Available: https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf. Accessed: January 30, 2023.

policies, or regulations adopted for the purpose of reducing GHG emissions would be ***less than significant***, and no mitigation is required.

California Senate Bill 375/Plan Bay Area 2050

Plan Bay Area 2050, the RTP/SCS for the San Francisco Bay Area, was prepared by the MTC pursuant to the requirements of SB 375, as discussed in the *Regulatory Setting*, above. Plan Bay Area 2050 is a State-mandated, integrated long-range transportation and land use plan that demonstrates reductions in GHG emissions from passenger cars and light-duty trucks.[62] Plan Bay Area 2050 highlights the importance of achieving a more balanced distribution of jobs and housing across the region through strategies such as encouraging both market-rate and affordable housing development in transit-rich areas near major employment centers and promoting greater commercial densities in targeted growth areas.[63] Moreover, strategies EN4, H3, and EC4 call for maintaining urban growth boundaries, thereby allowing a greater mix of housing densities and types in growth geographies and greater commercial densities in growth geographies, respectively.[64]

Consistent with these goals and strategies, the Project would advance the Plan Bay Area 2050 objectives by siting new development within the existing urban footprint (EN4) and allowing greater commercial and residential densities in a transit-rich area (H3, EC4). Specifically, the Project proposes four different mixed-use development areas with floor area ratios ranging from 1.62 to 3.34. The proposed density at the Project site would serve to reduce the physical footprint required to live, socialize, and work, thereby decreasing the amount of land, water, and energy required per capita. Furthermore, the Project proposes a mix of residential, commercial, retail, and childcare land uses that would provide the community with amenities in one place. This would reduce travel time and distance, along with the environmental impacts associated with traveling to offsite locations. In addition, the Project site is within a transit-rich area[65] and adjacent to current and future transit lines and bicycle corridors, which are within the existing urban footprint and connected to the surrounding community. Thus, the Project advances Plan Bay Area 2050 goals by developing a mix of high-density residential, commercial, retail, and childcare land uses in a transit-rich area and promoting a more balanced distribution of jobs and housing across the region.

Conclusion

Operation of the Project would be consistent with CARB's 2022 Scoping Plan, which identifies the State's path for keeping California on track with respect to meeting its SB 32 GHG reduction target, with emissions at least 40 percent below 1990 emissions by 2030, carbon neutrality achieved by 2045, and anthropogenic emissions reduced to a level 85 percent below 1990 levels, because the Project would be consistent with CAP measures and the scoping plan–identified key project attributes applicable to the Project.[66] The

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62 California Air Resources Board. 2018a. *SB 375 Regional Greenhouse Gas Emissions Reduction Targets.* Approved: March 22, 2018. Available: https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets. Accessed: January 30, 2023.

63 Metropolitan Transportation Commission and Association of Bay Area Governments. 2021. *Plan Bay Area 2050.* Adopted October 21. Available: https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf. Accessed: January 30, 2023.

64 Ibid.

65 Metropolitan Transportation Commission and Association of Bay Area Governments. 2021. *Plan Bay Area 2050 Growth Geographies*. January. Available: https://opendata.mtc.ca.gov/datasets/MTC::plan-bay-area-2050-growth-geographies/about. Accessed: January 30, 2023.

66 Though this analysis determines the Project's alignment with CARB's 2022 Scoping Plan, based on its consistency with the City's CAP, the Project's consistency with the scoping plan–identified key attributes

Project would also comply with Plan Bay Area 2050, the applicable regional plan for reducing mobile-source emissions in the San Francisco Bay Area. Therefore, the Project would not conflict with State, regional, or local plans designed to achieve the GHG reduction goals mandated by SB 32 and AB 1279 for 2030 and 2045, respectively. This impact would be ***less than significant.***

Cumulative Impacts

Climate change is a global problem. GHG impacts are inherently cumulative because the geographic context for the analysis of cumulative GHG impacts is global and GHGs contribute to the global phenomenon that is climate change, regardless of where they are emitted. Climate change is the result of the individual contributions of countless past, present, and future sources. Therefore, GHG impacts are, by definition, cumulative, and the analysis above is inclusive of cumulative impacts.

provides further evidence that the Project would not conflict with implementation of CARB's 2022 Scoping Plan or attainment of the statewide GHG targets for 2030 and 2045 mandated by SB 32 and AB 1279, respectively.

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3.5 Energy

This section describes existing conditions related to energy within and around the Mission Point Project (Project) site and evaluates the potential for impacts related to energy that could occur as a result of development of the Project, including the wasteful, inefficient, or unnecessary consumption of energy resources as well as and potential conflict with or obstruction of a State of California (State) or local plan for renewable energy or energy efficiency.

No questions or concerns related to energy were raised in the responses to the Notice of Preparation (NOP) (Appendix 1).

Existing Conditions

Regulatory Setting

Federal

As discussed in Sections 3.3, *Air Quality*, and 3.4, *Greenhouse Gas Emissions*, of this Draft Environmental Impact Report (Draft EIR), the National Highway Traffic Safety Administration (NHTSA) sets Corporate Average Fuel Economy (CAFE) standards to improve average fuel economy (i.e., reduce fuel consumption) and reduce greenhouse gas (GHG) emissions generated by cars and light-duty trucks. NHTSA and the U.S. Environmental Protection Agency (EPA) have proposed amendments to the current fuel efficiency standards for passenger cars and light-duty trucks and new standards for model years 2021 through 2026, known as the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule. Under the SAFE Vehicles Rule, current 2020 standards would be maintained through 2026.

On September 19, 2019, EPA and NHTSA issued a final action on the One National Program Rule, which is considered Part One of the SAFE Vehicles Rule and a precursor to the proposed fuel efficiency standards, withdrawing California's CAA preemption waiver to set state-specific standards.[1] The EPA reinstated California's authority under the CAA to implement its own GHG emission standards and zero-emission vehicles (ZEV) sales mandate on March 9, 2022.[2] On December 19, 2021, NTSA finalized its vehicle efficiency standards rule to reach a projected industry-wide target of 40 miles per gallon by 2026, an approximately 25 percent increase over the prior SAFE rule.[3]

[1] The One National Program Rule enables EPA and NHTSA to provide nationwide uniform fuel economy and GHG vehicle standards by 1) clarifying that federal law preempts State and local tailpipe GHG standards, 2) affirming NHTSA's statutory authority to set nationally applicable fuel economy standards, and 3) withdrawing California's CAA preemption waiver to set state-specific standards.

[2] California, 22 other states, the District of Columbia, and two cities filed suit against Part One of the SAFE Vehicles Rule on September 20, 2019 (*California et al. v. United States Department of Transportation et al.,* 1:19-cv-02826, U.S. District Court for the District of Columbia). On December 12, 2021, NHTSA repealed the SAFE Vehicles Rule, Part One.

[3] EPA and NTHSA published final rules to amend and establish national carbon dioxide (CO_2) and fuel economy standards on April 30, 2020 (Part Two of the SAFE Vehicles Rule) (85 *Federal Register* 24174). The revised rule changes the national fuel economy standards for light-duty vehicles from 46.7 to 40.4 miles per gallon in future years. California, 22 other states, the District of Columbia filed a petition for review of the final rule on May 27, 2020.

Energy Policy Act of 2005

The Energy Policy Act, adopted in August 2005, amended existing regulations, including fuel economy testing procedures and requirements for federal and state agencies as well as alternative-fuel providers. Specifically, the Energy Policy Act addressed issues regarding energy production and reliance on nonrenewable energy in the U.S., including, but not limited to, issues regarding energy efficiency, renewable energy production, oil and gas, nuclear matters and security, vehicles and motor fuels, hydropower and geothermal energy, and climate change technology. In addition, the act called for grant programs and tax incentives that promote the use of alternative fuels and the production of advanced vehicles.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (EISA) was signed into law by President Bush in December 2007. EISA reinforced the energy reduction goals for federal agencies set forth in Executive Order (EO) 13423 (Strengthening Federal Environmental, Energy, and Transportation Management) and provided for additional energy reduction requirements. EISA also aimed to increase the production of clean renewable fuels, increase U.S. energy security, develop renewable fuel production, improve vehicle fuel economy, and promote research on GHG capture and storage options.

State

California has adopted statewide legislation to address various aspects of climate change and GHGs, which often pertain directly or indirectly to energy resources and uses. This section focuses on State legislation that specifically mentions energy use or energy resources. For other State legislation that focuses mainly on GHG emissions reductions and climate change, refer to Section 3.4, *Greenhouse Gas Emissions*, of this EIR.

Assembly Bill 1493, Pavley Rules (2002, amendments 2009)/Advanced Clean Cars (2011)

Known as Pavley I, Assembly Bill (AB) 1493 provided the nation's first GHG standards for automobiles. AB 1493 required the California Air Resources Board (CARB) to adopt vehicle standards to lower GHG emissions from automobiles and light-duty trucks to the maximum extent feasible, beginning in 2009. In 2012, strengthening of the Pavley standards (referred to previously as Pavley II but now referred to as the Advanced Clean Cars measures) was adopted for vehicle model years 2017 through 2025. Together, the two standards are expected to increase average fuel economy to roughly 54.5 miles per gallon by 2025. The increase in fuel economy will help lower the demand for fossil fuels.

California Energy Efficiency Standards for Residential and Nonresidential Buildings—California Green Building Standards Code (2011), Title 24 Updates

The California Green Building Standards Code (Part 11, Title 24), or CALGreen, was adopted as part of the California Building Standards Code (24 California Code of Regulations). CALGreen, which applies to the planning, design, operation, construction, use, and occupancy of newly constructed buildings, required energy- and water-efficient indoor infrastructure to be installed in all new projects, beginning January 1, 2011. CALGreen also required newly constructed buildings to develop a waste management plan and divert at least 50 percent of the construction materials generated during construction.

The current Building Energy Efficiency Standards were adopted in August 2021 and took effect on January 1, 2023. Under the current standards, all new homes are required to be electric-ready homes, which means that buildings with gas stoves will have the electrical panels and wiring needed to support

a switch to electric stoves. Later standards are expected to require zero net energy for certain uses, including new commercial uses.

Executive Order B-16-12 (2012)

Under the direction of the governor, EO B-16-12 orders State entities, including CARB, the California Energy Commission (CEC), and the California Public Utilities Commission (CPUC), to support rapid commercialization of zero-emission vehicles. It also directs these entities to achieve various benchmarks related to zero-emission vehicles.

Senate Bill 350, Chapter 547, Clean Energy and Pollution Reduction Act of 2015

Senate Bill (SB) 350 (DeLeon), also known as the Clean Energy and Pollution Reduction Act of 2015, was approved by the California legislature in September 2015 and signed by Governor Brown in October 2015. Its key provisions require the following by 2030: (1) a Renewables Portfolio Standard (RPS)[4] of 50 percent and (2) doubling of the statewide energy efficiency savings related to natural gas and electricity end uses.[5] In order to meet these provisions, the bill requires large utilities to develop and submit integrated resource plans that detail how the utilities will reduce GHG emissions and increase the use of clean energy resources while meeting customers' needs.

Senate Bill 100—The 100 Percent Clean Energy Act of 2018 (2018)

SB 100 builds on SB 350, the Clean Energy and Pollution Reduction Act of 2015. SB 100 increases the 2030 RPS target set in SB 350 to 60 percent and requires 100 percent of retail sales of electricity to California end-user customers and 100 percent of electricity produced to serve State agencies to be from renewable and other zero-carbon resources by 2045.

Local

Pacific Gas and Electric Integrated Resource Plan

Pacific Gas and Electric (PG&E) adopted the 2022 Integrated Resource Plan (IRP) on November 1, 2022, to provide guidance for serving the electricity and natural gas needs of residents and businesses within its service area while fulfilling regulatory requirements.[6] The IRP contains the following objectives that are relevant to the Project:

- **Clean Energy**: In 2021, PG&E delivered nearly 48 percent of its electricity from RPS-eligible renewable resources, such as solar, wind, geothermal, biomass, and small hydropower. In addition, PG&E's GHG-free energy production, which includes renewable resources, large hydropower, and nuclear energy generation, satisfied 91 percent of PG&E bundled retail sales in 2021. PG&E's IRP is also focused on facilitating a path for PG&E to meet is clean energy requirements under SB 100 as well as its 2030 and 2035 GHG planning benchmarks assigned in the IRP.

[4] The RPS is one of California's key programs for promoting renewable energy use within the state. The program sets forth continuous procurement of renewable energy for load-serving entities within California.

[5] California Energy Commission. 2023. *Renewable Portfolio Standard—RPS*. Available: https://www.energy.ca.gov/programs-and-topics/programs/renewables-portfolio-standard. Accessed: August 22, 2023.

[6] Pacific Gas and Electric Company. 2022. *Integrated Resource Plan*. Available: https://www.pge.com/pge_global/common/pdfs/for-our-business-partners/energy-supply/integrated-resource-planning/2022-PGE-Integrated-Resource-Plan.pdf. Accessed August 22, 2023.

- **Reliability**: PG&E's IRP analysis includes PG&E's contribution to system and local reliability, in compliance with the CPUC's resource adequacy requirements, especially as California transitions toward higher shares of GHG-free generation resources.
- **Affordability**: PG&E's IRP analysis selects resources to meet the State's clean energy and reliability goals and provides a system-average rate forecast in compliance with the CPUC's requirements for investor-owned utilities.

SVP Integrated Resource Plan

Silicon Valley Power (SVP) is Santa Clara's municipal electric utility provider. SVP has been providing power to the City since 1896. SVP adopted the 2018 IRP on November 27, 2018, to provide guidance for serving the electricity needs of the residents and businesses in the City while fulfilling regulatory requirements over an approximately 20-year period from 2019 to 2038. The plan contains the following strategic goals that are relevant to the Project:

- 60 percent renewable energy by 2030 while meeting intermediate goals per SB 100,
- Increased energy efficiency per SB 350, and
- Low-cost and reliable energy.

SVP meets its renewable energy requirements with a combination of RPS-eligible energy products. According to its 2018 IRP, SVP's 2017 power mix consisted of 38 percent eligible renewable resources, and when large hydroelectric resources were accounted for, SVP's power mix was 72 percent GHG free. SVP is anticipated to exceed the 50 percent renewable energy mandate in 2030, based on its existing system and future acquisitions.[7]

City of Santa Clara 2010–2035 General Plan

The *City of Santa Clara 2010–2035 General Plan* (General Plan) was adopted in November 2010 and has been amended several times since then, with the last comprehensive amendment in 2014. The General Plan provides a vision for long-range physical and economic development of the City, provides strategies and specific implementing actions, and establishes a basis for judging whether specific development proposals and public projects are consistent with the City of Santa Clara's (City's) plans and policy standards. The City's General Plan includes the following policies that are applicable to energy:

  - *Policy 5.1.1-P3:* Prior to implementation of Phase III of the General Plan, undertake a comprehensive assessment of water, sanitary sewer conveyance, wastewater treatment, solid waste disposal, storm drain, natural gas, and energy demand and facilities in order to ensure adequate capacity and funding to implement the necessary improvements to support development in the next phase.
  - *Policy 5.8.1-P6:* Implement level-of-service standards that support increased transit ridership, biking, and walking in order to decrease vehicle miles traveled and reduce air pollution, energy consumption, and greenhouse gas emissions.
- **Goal 5.10.3-G1:** Energy supply and distribution maximizes the use of renewable resources.
- **Goal 5.10.3-G2:** Implementation of energy conservation measures to reduce consumption.

[7] Silicon Valley Power. 2018. *2018 Integrated Resource Plan—Silicon Valley Power*. Available: https://www.siliconvalleypower.com/home/showpublisheddocument/62481/637268684502400000. Accessed: August 22, 2023.

- **Goal 5.10.3-G3:** Adequate energy service to residents, businesses, and municipal operations.
  - *Policy 5.10.3-P1:* Promote the use of renewable energy resources, conservation, and recycling programs.
  - *Policy 5.10.3-P2:* Transition away from using coal as an energy source to renewable resources by replacing coal in Silicon Valley Power's portfolio, exploring City-owned property for renewable energy projects, developing solar projects, and incentivizing solar projects for residents and businesses, consistent with the Climate Action Plan (CAP).
  - *Policy 5.10.3-P3:* Maximize the efficient use of energy throughout the community by achieving adopted electricity targets and promoting natural gas efficiency, consistent with the CAP.
  - *Policy 5.10.3-P4:* Encourage new development to incorporate sustainable building design, site planning, and construction, including encouraging solar opportunities.
  - *Policy 5.10.3-P5:* Reduce energy consumption through sustainable construction practices, materials, and recycling.
  - *Policy 5.10.3-P6:* Promote sustainable buildings and land planning for all new development, including programs that reduce energy and water consumption in new development.
  - *Policy 5.10.3-P7:* Encourage installation of solar energy collection through solar hot water heaters and photovoltaic arrays.
  - *Policy 5.10.3-P8:* Provide incentives for Leadership in Energy and Environmental Design–certified, or equivalent, development.
  - *Policy 5.10.3-P9:* Incorporate criteria for sustainable building and solar access into the City's ordinances and regulations.
  - *Policy 5.10.3-P11:* Continue innovative energy programs to develop cost-effective alternative power sources and encourage conservation.
  - *Policy 5.10.3-P12:* Work with Silicon Valley Power to implement adequate energy distribution facilities to meet the demand generated by new development.
  - *Policy 5.10.3-P14:* Work with Pacific Gas and Electric to ensure an adequate supply of natural gas to meet the demand generated by new development.
  - *Policy 5.10.3-P15:* Explore opportunities for alternative energy "fueling stations" and promote participation in shuttle services that use new technology vehicles to reduce greenhouse gas emissions.

City of Santa Clara Construction and Demolition Debris Recycling Program

In accordance with its Accumulation, Transportation, and Disposal of Solid Waste Ordinance (Chapter 8.25), the City has established the Construction and Demolition Debris Recycling Program. The program requires projects greater than 5,000 square feet with construction and/or demolition permits to track and divert a minimum of 65 percent of the waste generated during construction through either recycling or reuse.

City of Santa Clara Climate Action Plan

The City's Climate Action Plan (CAP), adopted in June 2022, includes goals, strategies, and actions to reduce Santa Clara's GHG emissions, in compliance with EO B-30-15, SB 32, and EO B-55-18. The City's CAP was adopted with the purpose of reducing GHGs community-wide and meeting the reduction targets

(i.e., 40 percent reduction in GHG emissions by 2030, an 80 percent reduction in GHG emissions by 2035, carbon neutrality no later than 2045). The City has identified GHG reduction and climate resiliency measures in the building, energy, transportation, land use, materials and consumption, natural systems, water resources, and community resiliency sectors, which can be coupled with State and existing local actions to reduce GHG emissions. GHG emissions largely involve energy consumption (i.e., fossil-fuel usage); therefore, a reduction in GHG emissions would also equate to a reduction in energy consumption. The following goals and strategies are applicable to energy:

- Goal—Buildings and Energy: Transition to clean renewable energy sources and reduce energy consumption.
  - Strategy B1: Shift to electric fuels in new and existing buildings to achieve net-zero carbon buildings.
  - Strategy B2: Improve energy efficiency.
  - Strategy B3: Maximize renewable energy generation and storage capacity.
- Goal—Transportation and Land Use: Transition to clean and efficient mobility options and transportation modes while maintaining accessibility and mobility for all.
  - Strategy T1: Transition vehicles to electric alternatives.
  - Strategy T2: Expand clean mobility options and use of non-single-occupancy-vehicle transportation modes.
  - Strategy T3: Advance sustainable land use.

Environmental Setting

Energy resources in California include natural gas, electric, water, wind, oil, coal, solar, geothermal, and nuclear resources. Energy production and energy use both result in the depletion of nonrenewable resources, such as oil, natural gas, and coal, and the emission of pollutants.

Statewide Energy Resources and Use

California's diverse portfolio of energy resources produced approximately 2,190.2 trillion British thermal units (BTUs) in 2020.[8] According to the CEC, total electric generation for California in 2021 (the most recent year for which data are available) was approximately 277,764 gigawatt hours. California's non-carbon-dioxide-emitting electric generation categories, including nuclear, hydroelectric, and renewable generation, accounted for approximately 49 percent of total in-state generation in 2021, which is a 2 percent decrease from 2020 due to impacts on hydroelectric power and other forms of renewable energy from California's ongoing drought. California's in-state electric generation was approximately 194,127 gigawatt hours.[9] Excluding offshore areas, the state ranked seventh in the nation in crude oil production in 2020 (the most recent year for which data are available), producing the equivalent of

[8] U.S. Energy Information Administration. 2022. *Table P5B—Primary Energy Production Estimates, Renewable and Total Energy, in Trillion BTU, Ranked by State.* Available: *https://www.eia.gov/state/seds/*

[9] California Energy Commission. 2022. *2021 Total System Electric Generation*. Available: https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2021-total-system-electric-generation#:~:text=Total%20renewable%20energy%20reached%2033.6,%20from%2090%2C208%20GWh%20in%202020). Accessed: August 22, 2023.

approximately 814.5 trillion BTUs.[10] Other energy sources in the state include natural gas (192.1 trillion BTUs), nuclear (169.8 trillion BTUs), and biofuel (20.3 trillion BTUs).[11,12,13]

With a relatively mild Mediterranean climate and strict energy-efficiency requirements, California has lower energy consumption rates than other parts of the United States. According to the U.S. Energy Information Administration, California consumed approximately 6,922.8 trillion BTUs of energy in 2020.[14,15] California's per capita energy consumption of approximately 175.3 million BTUs was ranked third lowest in the nation as of 2020. [16]

In 2020, the transportation sector consumed the greatest amount of energy (2,355.5 trillion BTUs, or 34 percent), followed by the industrial (1,701.2 trillion BTUs, or 24 percent), residential (1,507.7 trillion BTUs, or 22 percent), and commercial (1,358.3 trillion BTUs, or 20 percent) sectors.[17] Natural gas accounted for the majority of energy consumption (2,144 trillion BTUs, or 31 percent), followed by gasoline (1,357.8 trillion BTUs, or 20 percent); renewable energy, including nuclear electric power, hydroelectric power, biomass, and other renewables (1,310.2 trillion BTUs, or 19 percent); distillates and jet fuel (865.7 trillion BTUs, or 12 percent); and interstate electricity (756.5 trillion BTUs, or 11 percent), with the remaining 7 percent coming from a variety of other sources.[18] Of the natural gas consumed, industrial uses consumed approximately 33 percent, followed by residential uses (21 percent) and commercial uses (11 percent), among many other uses.[19]

Per capita energy consumption, in general, is declining because of improvements in energy efficiency and designs. However, despite this reduction in per capita energy use, the state's total overall energy consumption (i.e., non-per capita energy consumption) is expected to grow over the next several decades as a result of increases in population, jobs, and vehicle miles traveled (VMT).

[10] U.S. Energy Information Administration. 2022. *Table P5A—Primary Energy Production Estimates, Fossil Fuels and Nuclear Energy, in Trillion BTU, Ranked by State, 2020*. Available: https://www.eia.gov/state/seds/sep_prod/pdf/P5A.pdf. Accessed: January 5, 2023.

[11] No coal production occurs in California.

[12] U.S. Energy Information Administration. 2022. *Table P5B—Primary Energy Production Estimates, Renewable and Total Energy, in Trillion BTU, Ranked by State, 2020*.

[13] U.S. Energy Information Administration. 2022. *Table P5A—Primary Energy Production Estimates, Fossil Fuels and Nuclear Energy, in Trillion BTU, Ranked by State, 2020*.

[14] One BTU is the amount of energy required to heat 1 pound of water by 1°F at sea level. BTU is the standard unit of energy used in the United States and based on the English system of units (foot-pound-second system).

[15] U.S. Energy Information Administration. 2022. *Table C11—Total Energy Consumption Estimates by End-Use Sector, Ranked by State, 2020*. Available: https://www.eia.gov/state/seds/sep_sum/html/rank_use.html. Accessed: August 22, 2023.

[16] U.S. Energy Information Administration. 2022. T*able C14—Total Energy Consumption Estimates per Capita by End-Use Sector, Ranked by State, 2020*. Available: https://www.eia.gov/state/seds/seds-data-complete.php. Accessed: January 5, 2023.

[17] U.S. Energy Information Administration. 2022. *Table C11—Total Energy Consumption Estimates by End-Use Sector, Ranked by State, 2020*.

[18] California Energy Consumption Estimates. 2022. *California State Energy Profile*. Available: https://www.eia.gov/ state/?sid=CA#tabs-1. Accessed: January 5, 2023.

[19] California Energy Consumption Estimates. 2022. *Natural Gas Consumption by End Use—California*. Available: https://www.eia.gov/dnav/ng/ng_cons_sum_dcu_SCA_a.htm. Accessed: January 5, 2023.

Regional Energy Resources and Use

Electricity

Santa Clara has its own municipal electric utility, SVP, which provides power to residences as well as commercial and industrial businesses in the City. SVP's power comes from a mix of clean energy sources, including solar, wind, geothermal, biomass and biowaste, and hydroelectric generation resources, located across California, Oregon, and Washington.[20] On average, SVP provides more than 45 percent of its clean energy from hydroelectric power. However, due to ongoing impacts from drought and wildfires, this percentage has been much lower recently. For example, in 2020, SVP provided only 23 percent of its energy from hydroelectric resources. SVP is currently in the process of procuring more energy resources, which could provide an additional 700 megawatts (MW) or energy per year, enough energy to power approximately 366,000 homes.[21]

SVP's service area is approximately 18.4 square miles and includes Santa Clara. SVP has approximately 58 miles of transmission lines, 374 miles of underground distribution lines, and 187 miles of overhead distribution lines it uses to deliver electricity to its customers, along with 8,219 streetlights.[22] SVP's electricity distribution system consists of lower-voltage secondary lines at the street and neighborhood level, including overhead or underground distribution lines, transformers, and individual service "drops" that connect to individual customers. In 2021, SVP had a peak demand of approximately 594.8 MW.[23]

SVP offers its customers four types of electricity programs. The SVP Residential Mix is the base option for energy delivered to SVP's residential customers. It consists of 100 percent eligible renewable or GHG-free energy. Similarly, the SVP Non-Residential Mix is the base option for energy provided to SVP's commercial and industrial customers. In addition, to those base options, SVP offers the Green Power Standard Mix for residential customers who already receive energy under the Residential Mix program. The Green Power Standard Mix is part of the Santa Clara Green Power Program, which supports the purchase of 100 percent renewable energy credits. Similarly, the National Green Power Mix is a separate program for SVP non-residential customers that enroll in the non-residential program and procure energy offsets to contribute to their sustainability or carbon-neutral goals.[24]

Table 3.5-1 outlines SVP's power mix in 2021 compared to the power mix for the state and identifies the renewable and non-renewable energy sources for SVP and the state. It should be noted that some GHG-free sources are not considered renewable (e.g., nuclear is GHG free but not renewable) and that electricity usage for different land uses varies substantially by the types of uses in a building, the types of construction materials used, and the efficiency of the electricity-consuming devices. In addition, Table 3.5-2 outlines energy consumption in 2021 in SVP's service area.

[20] Silicon Valley Power. 2022. *Electric Resource Map*. Available: https://www.siliconvalleypower.com/home/showpublisheddocument/5763/637859575880170000. Accessed: August 22, 2023.

[21] Silicon Valley Power. 2022. *Power Content Label*. Available: https://www.siliconvalleypower.com/svp-and-community/about-svp/power-content-label. Accessed: August 22, 2023.

[22] Silicon Valley Power. 2021. *Electric Utility Fact Sheet—December 2021*. Available: https://www.siliconvalleypower.com/home/showpublisheddocument/76639/637812250378500000. Accessed: August 22, 2023.

[23] Ibid.

[24] Silicon Valley Power. 2022. *Power Content Label*. Available: https://www.siliconvalleypower.com/svp-and-community/about-svp/power-content-label. Accessed: August 22, 2023.

Table 3.5-1. SVP and the State of California Power Mix in 2021

Energy Resources	SVP: Residential	SVP: Non-Residential	SVP: Green Power Standard	SVP: Green Power National	California Power Mix 2021
Eligible Renewable	**35.9%**	**27.0%**	**100%**	**27.0%**	**33.6%**
Biomass and Biowaste	0%	2.1%	0%	2.1%	2.3%
Geothermal	0%	7.1%	0%	7.1%	4.8%
Eligible Hydroelectric	0%	5.9%	0%	5.9%	1.0%
Solar	14.7%	4.1%	100%	4.1%	14.2%
Wind	21.2%	7.8%	0%	7.8%	11.4%
Non-Renewable	**64.1%**	**73.0%**	**0%**	**73.0%**	**66.4%**
Coal	0%	0%	0%	0%	3.0%
Large Hydroelectric	64.1%	6.7%	0%	6.7%	9.2%
Natural Gas	0%	34.3%	0%	34.3%	37.9%
Nuclear	0%	0%	0%	0%	9.3%
Other	0%	0%	0%	0%	0.2%
Unspecified[a]	0%	32.0%	0%	32.0%	6.8%
Total	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Silicon Valley Power. 2022. *Power Content Label*. Available: https://www.siliconvalleypower.com/svp-and-community/about-svp/power-content-label. Accessed: August 22, 2023.
Notes:

a. Electricity from transactions that are not traceable to specific generation sources are classified as unspecified sources of power.

Table 3.5-2. Energy Consumption in the SVP Service Area in 2021

Energy Uses	Gigawatt Hours
Agriculture and Water Pump	0.1
Commercial	3,090.7
Commercial Other	46.2
Industry	910.9
Mining and Construction	80.2
Residential	251.1
Streetlight	3.0
Total Usage	**4,382.1**

Source: California Energy Commission. 2023. *Electricity Consumption by Entity—SVP 2021*. Available: http://www.ecdms.energy.ca.gov/elecbyutil.aspx. Accessed: January 19, 2023.

Natural Gas

PG&E's natural gas (i.e., methane) delivery system relies on approximately 42,000 miles of natural gas distribution pipelines and approximately 6,700 miles of transmission pipelines.[25] The gas transmission system is operated under an inspection and monitoring program in real time on a 24-hour basis, with leak inspections, surveys, and patrols continuously taking place along the pipelines. Gas delivered by PG&E originates in gas fields in California, the Southwest, the Rocky Mountains, and Canada. Transmission

[25] Pacific Gas and Electric Company.2023. *Learn About the PG&E Natural Gas System*. Available: https://www.pge.com/en_US/safety/how-the-system-works/natural-gas-system-overview/natural-gas-system-overview.page. Accessed: August 22, 2023.

pipelines send natural gas from the fields and storage facilities. The smaller distribution pipelines deliver gas to individual businesses or residences.

Project Site Energy Resources and Use

The 48.6-acre Project site contains four light industrial buildings, totaling 142,050 gross square feet (gsf), on the northern portion of the site and a paved surface parking lot south of Democracy Way with approximately 5,081 parking spaces. As described in Chapter 2, *Project Description*, the Project Sponsor is currently using one of the buildings on the Project site; the other buildings are vacant. The primary use on the Project site is temporary event parking for Levi's stadium, which uses 3,300 parking spaces. The rest of the parking spaces are used by Amazon as drivers' training grounds. Table 3.5-3 provides existing energy usage data for the main Project site.

Table 3.5-3. Existing Energy Consumption at the Project Site (Per Year)

Source	Existing Usage
Electricity	479,501 kWh/year
Natural Gas	1,924,531 kBTU/year

Source: CalEEMod. See Appendix 3.3-1.
Notes:
kWh = kilowatt-hour; kBTU = thousand British thermal units

As stated previously, the Project site is served by existing natural gas and electric infrastructure provided by PG&E and SVP, respectively. Natural gas and electricity are currently delivered to the Project site through rights-of-way for natural gas and electrical lines. A review of SVP's utility base maps indicates that there is a network of electrical lines in all streets adjacent to the Project site, including Democracy Way. Similarly, there is a network of natural gas mains in all streets adjacent to and within the Project site, including Democracy Way. As part of the Project, existing electrical lines and natural gas mains would be relocated, as discussed in more detail in Chapter 2, *Project Description*.

Environmental Impacts

This section describes the impact analysis related to energy use for the Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

Thresholds of Significance

The Project would have a significant effect if it would result in any of the conditions listed below.

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation (EN-1 and C-EN-1).
- Conflict with or obstruct a State or local plan for renewable energy or energy efficiency (EN-2 and C-EN-2).

Methods for Analysis

Energy impacts associated with construction and operation of the Project were assessed and quantified, where applicable, using standard and accepted software tools and techniques. A summary of the methodology for calculating the Project's energy use is provided in the paragraphs below.

Appendix F of the State CEQA Guidelines provides guidance for determining whether a project would result in the wasteful, inefficient, or unnecessary consumption of energy resources. As stated in Appendix F, the goal of conserving energy implies a wise and efficient use of energy; the means for achieving this goal include:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels, such as coal, natural gas, and oil; and
- Increasing reliance on renewable energy resources.

Based on Appendix F, environmental considerations in the assessment of energy consumption impacts may include the following:

- The Project's energy requirements as well as its energy efficiencies by amount and fuel type for each stage of the Project, including construction and operation. If appropriate, the energy intensiveness of materials may be discussed;
- The effects of the Project on local and regional energy supplies and requirements of additional capacity;
- The effects of the Project on peak- and base-period demands for electricity and other forms of energy;
- The degree to which the Project complies with existing energy standards;
- The effects of the Project on energy resources; and
- The Project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

Construction

Construction activities under the Project would result in energy consumption from the use of construction equipment; the use of vehicles, including haul trucks, by workers; and the use of electricity. Data regarding total electricity usage during construction was provided by the Project Sponsor. Fuel usage was quantified from the construction emissions profile, with construction data (e.g., construction schedule, equipment operating details, trip numbers and lengths, construction quantities) provided by the Project Sponsor, where available. Assumptions regarding typical construction activities as well as default values from the California Emissions Estimator Model (CalEEMod), which considers a project's location and land use type, were also used. Assuming all off-road activities, hauling, and vendor activities would be carried out with diesel equipment and vehicles and all workers would use gasoline vehicles to travel to and from the Project site, the annual amount of metric tons of carbon dioxide equivalent (CO_2e) emissions associated with each corresponding construction activity (e.g., off-road equipment usage, workers' trips) can be converted to gallons of diesel or gasoline and summed accordingly.

Operation

Energy consumption associated with the Project includes the use of electricity, natural gas, and fuel for mobile sources (e.g., vehicles). Specifically, landscaping equipment, including gasoline-powered equipment (e.g., trimmers, mowers); backup generators; and water usage would all result in energy consumption during Project operation.

Electricity use was quantified using CalEEMod, version 2022.01, for existing (2022) and build-out (2034) conditions within the Project site to reflect implementation of State measures to reduce energy use and resulting GHG emissions (e.g., Pavley standards). Assumed defaults were based on the anticipated land uses and square footage identified in Chapter 2, *Project Description*. The analysis quantified the energy reductions that would result from the Project's incorporation of onsite renewable energy generation with the use of solar panels for operational electricity needs. Quantifiable features required for compliance with CALGreen (e.g., low-flow fixtures) were also incorporated into the CalEEMod model. Consistent with the capabilities of CalEEMod, the analysis does not quantify the energy reductions that would occur with implementation of the Project's range of non-transportation-related sustainability features, such as Leadership in Energy and Environmental Design (LEED) Neighborhood Development (ND) Silver certification, LEED Gold-certified offices, and LEED Silver-certified residences, or the equivalent of such certification, including reductions in energy use from the LEED v4 baseline and reductions in potable water usage compared with the LEED v4 baseline.

Fuel consumption was quantified with use of CalEEMod, CARB's EMFAC2021 emissions model, and traffic data. Traffic data were provided by the Project's traffic consultant in the form of annual VMT figures and the number of daily vehicle trips. Please refer to Appendix 3.3-1 for the CalEEMod output files and fuel use calculations.

Based on information provided by the Project Sponsor, there may be minor changes in the distribution of the Project's nonresidential uses (i.e., office/research-and-development (R&D), retail, childcare, and community amenity space) between Areas A, B, C, and D. To account for potential changes in the distribution of the Project's nonresidential land use types between Areas A, B, C, and D, this analysis conservatively applies a 5 percent buffer to each of the proposed nonresidential land uses. Increases in land use sizes corresponding to the 5 percent buffer result in increased emissions from energy consumption, water consumption, and waste generation. This is a conservative approach because the total amount of new building space would not change; rather, there would be only minor changes in the distribution of nonresidential uses between Areas A, B, C, and D. The 5 percent buffer was not applied to the Project's mobile- and stationary-source emissions calculations because the total number of vehicle trips, total VMT, and emergency generator activities would not be affected by minor changes in the distribution of nonresidential land uses between Areas A, B, C, and D.

Impacts and Mitigation Measures

Impact EN-1: Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources. With implementation of mitigation, the Project would not result in significant environmental impacts due to the wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation. (Less than Significant with Mitigation)

Construction

Construction activities associated with the Project would result in the temporary use of energy resources. As described in Chapter 2, *Project Description*, SVP approval would be required for abandonment of

existing electrical lines and related infrastructure along Democracy Way and the provision of new facilities along Kylli Drive East and Kylli Drive West. The utility provider would be consulted regarding the relocation of electric facilities in concert with demolition activities onsite and the installation of new substructures, cables, switches, and associated electrical facilities, which are described in more detail in the following section. SVP would maintain the distribution system and continue to supply electricity to the Project site during all phases of construction.

Energy usage during construction would include the electricity used to power electric construction equipment or deliver water to construction sites, the gasoline and diesel fuel used to transport workers and drive haul trucks to and from construction sites, and the fuel used to operate off-road equipment. During build-out of the Project, construction-related energy usage and consumption would vary, depending on the level of activity, the length of the different construction periods, specific construction operations, the types of equipment, and the number of workers. Data regarding the Project's estimated construction-related energy consumption are provided in Table 3.5-4. As shown, approximately 610,268 million BTUs would be consumed over the Project's approximately 9-year construction period. This could result in a ***significant*** impact if construction measures or practices are not implemented to improve the energy efficiency of construction equipment (and subsequent construction activities) and reduce overall energy consumption to the greatest extent feasible.

Table 3.5-4. Estimated Demolition and Construction Energy Consumption from the Project (Total)

Source	Usage (units vary)	Usage (Million BTU)
Diesel	2,982,717 gallons	409,769
Gasoline	666,165 gallons	80,098
Electricity	35,287,514 kWh	120,401
Project Construction Total Energy Consumption:		***610,268***

Source: See Appendix 3.3-1 of this Draft EIR for CalEEMod model outputs and construction energy calculations.
Notes:
BTU = British thermal units; kWh = kilowatt-hour

During construction, Project-related land uses would not be expected to require an extraordinary amount of energy, as may occur with the construction of large industrial facilities like power plants or dams; this is because large industrial facilities are not proposed, or permitted, within the Project site. Furthermore, as discussed in Section 3.4, *Greenhouse Gas Emissions*, all construction under the Project would be required to comply with Mitigation Measure GHG-1.1, which would require construction contractors to implement the Bay Area Air Quality Management District's (BAAQMD's) and the California Air Resources Board (CARB) recommended construction best management practices (BMPs). These include, but are not limited to, using zero-emission and hybrid-powered equipment to the greatest extent possible; requiring all diesel-fueled off-road construction equipment to be equipped with EPA Tier 4 Final compliant engines or better; requiring all on-road heavy-duty trucks to be zero emissions or meet the most stringent model year emissions standard where available; and using alternative fuels, such as propane or solar electrical power, for generators at construction sites whenever feasible where grid power is not available. . In addition, the Project Sponsor would commit to achieve a minimum of 65 percent construction diversion rate and prepare a Construction Waste Management Plan or hire a waste management company to recycle, reduce, and/or reuse construction waste. These measures would reduce the amount of fossil fuels consumed during construction as well as the energy intensiveness associated with building materials, including discarded construction and demolition waste. Therefore, with implementation of Mitigation Measure GHG-1.1, construction under the Project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources. This impact would be ***less than significant with mitigation***.

Operation

Operation of the Project would result in the consumption of electricity, natural gas, diesel, and gasoline (e.g., for emergency generator testing, heating, cooling, landscape maintenance, and vehicle trips to/from the Project site). Operational energy consumption was evaluated under existing-year (2022) and build-out-year (2034) conditions. The Project would take a number of actions to reduce energy consumption (e.g., acquire LEED Silver and Gold certifications, comply with the increasingly stringent Title 24 Building Energy Efficiency and Green Building standards). Mobile fuel usage would be reduced through an extensive Transportation Demand Management (TDM) program. Mobile fuel would also be displaced through use of electric-vehicle charging stations. Energy use related to solid waste would be reduced through diversion, recycling, and composting programs. The Project also would incorporate onsite solar generation as well as water and waste reduction measures, including low-water landscaping, low-flow toilets, and low-flow faucets.

This analysis does not quantify all of the Project's energy-saving measures. Therefore, this is a conservative analysis. Table 3.5-5 provides the operational energy analysis (expressed as million BTU per year) for the Project. The Project's net energy consumption is the difference in operational energy consumption between 2034 with-Project conditions and existing (2022) conditions at the Project site.

Table 3.5-5. Estimated Operational Energy Consumption of the Project (Per Year)

Condition/Source	Million BTU/Year
Existing (2022)	
Electricity	1,636
Natural Gas	1,925
Total	**3,561**
Project (2034)	
Electricity	254,284
Natural Gas	0.17
Mobile – diesel	79,313
Mobile – electricity	17,389
Mobile – gasoline	429,277
Mobile – natural gas[a]	2,564
Mobile – hybrid (electricity/gasoline)	8,801
Total[b]	**791,628**
Net Increase with Project	
2034 vs. Existing	788,067
Energy per Gross Square Foot (million BTU/gsf)	
Existing (2022)	0.03
2034 with Project	0.16

Source: See Appendix 3.3-1 of this Draft EIR for CalEEMod model outputs.
Notes:

a. Natural gas would be consumed by Project-generated vehicle trips. As detailed in Section 3.3, *Air Quality*, and Section 3.4, *Greenhouse Gas Emissions*, natural gas–fueled vehicles are expected to generate approximately 0.13 percent of total VMT within Santa Clara in 2034. The vehicles expected to use natural gas include public fleet trucks, delivery trucks, and transit buses, among other vehicle types.

b. Totals may not add up because of rounding.

BTU = British thermal units; gsf = gross square feet

As shown in Table 3.5-5, below, build-out of the Project would increase operational energy consumption on the site by approximately 788,067 million BTUs compared with existing conditions. In addition, energy consumption per gsf would increase from 0.03 million BTU per gsf under existing conditions to 0.16 million BTU per gsf under Project conditions. This is because the building area would be approximately 35 times larger compared with existing conditions. The proposed density at the Project site would minimize the physical footprint where people would live, work, and socialize, thereby decreasing the amount of water and energy consumed per capita. In addition, by providing a mix of residential, commercial, retail, and childcare uses on the site, the Project would create a community where amenities would be available in one place, thereby reducing the time needed to travel to offsite locations as well as the amount of energy consumed by vehicle trips. The Project would also incorporate a number of energy efficiency measures into the design, as described in more detail below.

All proposed buildings on the Project site would be CALGreen (Title 24, Part 11) compliant. The Project would target United States Green Building Council LEED ND Silver certification, along with LEED Gold certification for offices and LEED Silver certification for residences, or the equivalent. This would result in (1) reductions in energy usage compared with the LEED v4 baseline, (2) reductions in potable water usage compared with the LEED v4 baseline, and (3) the diversion of construction waste from landfills. In addition, the orientation of the proposed buildings would enable effective solar control, which, along with design measures related to shading, would provide daylight for interior spaces and mitigate heat gain. All proposed buildings would also incorporate a low-energy building design, with features such as LED light fixtures, smart building controls, high-efficiency fans and pumps, daylight and occupancy sensors, and light-colored or planted "cool roofs" to reduce heat gain. Landscaping would be used in the horizontal and vertical planes to reduce the urban heat island effect and building cooling loads.

The Project would be required to connect to the 8-inch recycled water lines in Old Ironsides Drive and Patrick Henry Drive for irrigation and non-potable water uses at the proposed commercial buildings. Project buildings would have low-flush plumbing fixtures, and accessible water data to inform occupants of water use. Landscaping would include native and drought-resistant plants; tree canopies at parks, plazas, and trails whenever possible; and flow-through planters.

The Project would install rooftop photovoltaic panels to generate renewable energy onsite in the form of solar power to offset some of the Project's operational energy consumption. Furthermore, the Project would implement a robust TDM program for the site that would encourage alternative modes of transportation to reduce single-occupant vehicle use as well as energy consumption from vehicle usage. The Project's TDM program may include, as appropriate for the applicable use, connections to existing bicycle networks and public transit, bicycle parking, showers and lockers, low-emission car-share systems, preferential carpool/vanpool parking, electric-vehicle charging stations, and TDM program information, which would reduce VMT and, consequently, the amount of energy (i.e., gasoline and diesel) consumed.

An analysis was performed, in addition to the evaluation of the Project's operational energy consumption, to determine whether the energy demand generated by the Project could be served by existing energy infrastructure or if additional infrastructure and capacity would be needed. As described above, the Project would result in an increase in demand for electricity, an increase that could exceed the capacity of the existing SVP electric distribution system. Therefore, an approximately 18,000 gsf electrical substation would be constructed onsite to support the Project. The at-grade substation would be located on the east side of the Project site, in Area C, and have no parking above or below. This substation could also support the electrical needs of the adjacent Santa Clara North area. SVP would coordinate the precise size,

dimensions, and layout for the substation during the design phase of the Project. For more details, see "Electric and Energy System" in Chapter 2, *Project Description,* of this Draft EIR.

Based on the above analysis, operation of the Project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during operation. The impact would be ***less than significant***.

Impact EN-2: Conflict with Energy Plan. The Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. (Less than Significant)

State and local renewable energy and energy efficiency plans applicable to the Project are discussed above under *Regulatory Setting*. State plans include the AB 1493 Pavley Rules, California Title 24 energy efficiency standards, EO B-16-12, SB 350, and SB 100. Each contains required standards related to energy efficiency and renewable energy development. Local plans concerning energy efficiency to achieve the State's RPS mandates include PG&E's and SVP's IRPs and the City's CAP. The City's General Plan and CAP also include goals, policies, and requirements related to energy use and energy reductions.

Construction and Operation

During construction, the Project Sponsor would commit to diverting a minimum of 65 percent of construction waste and demolition material. The Project Sponsor would also prepare a Construction Waste Management Plan or hire a waste management company to recycle, reduce, and/or reuse construction waste. The diversion and recycling of these materials would reduce the amount of fossil fuel consumed during construction as well as the energy intensiveness associated with building materials, including discarded construction and demolition waste, consistent with CALGreen and local ordinances.

During operation of the Project, energy use by gsf would increase only slightly over existing conditions, even with the approximately 35-fold increase in building area compared with existing conditions. Although energy intensiveness per gsf would increase under the Project, the proposed density at the Project site would minimize the physical footprint where people would live, work, and socialize, thereby decreasing the amount of water and energy consumed per capita compared with the consumption that would otherwise occur if such uses were spread out over a larger area beyond the Project site. In addition, by providing a mix of residential, commercial, retail, and childcare uses on the site, the Project would create a community where amenities would be available in one place, thereby reducing the time needed to travel to offsite locations as well as the amount of energy consumed by vehicle trips.

As discussed above under Impact EN-1, operation of the Project would incorporate multiple sustainability, energy-saving, and TDM features. The Project would qualify for United States Green Building Council LEED ND Silver certification, along with LEED Gold certification for offices and LEED Silver certification for residences, or the equivalent. The proposed buildings, which would be designed to minimize energy use, would incorporate solar controls, design measures related to shading, LED fixtures, "cool roofs,"[26] and high-efficiency fans and pumps. Furthermore, the Project would meet the City's reach code and electric-vehicle charging requirements.[27] The Project would also implement a TDM program at the site to reduce energy consumption (e.g., gasoline or diesel usage) and install photovoltaic panels to provide a

[26] "Cool roofs" are designed to reflect more sunlight than a conventional roof, thereby absorbing less solar energy. This lowers the temperature of the building and reduces energy usage.

[27] Natural gas may be used in the lab and R&D portions of the Project, provided such usage meets the requirements of the City's reach code. Under the City's reach code, natural gas usage may be allowed under certain specified circumstances; usage would require approval from the current City Council–appointed body that reviews exception requests.

source of renewable energy onsite capable of offsetting some of the Project's operational energy consumption. Furthermore, the Project would further reduce water usage by connecting to existing recycled water lines. The recycled water would be used onsite for irrigation and non-potable water uses within the proposed commercial, childcare, and community amenity buildings.

During construction and operation, the Project would be required to comply with State and local renewable energy and energy efficiency plans. As a result, it would benefit from renewable energy development and increases in energy efficiency. Energy usage from increases in VMT and the number of average daily trips in the area is expected to become more efficient under the regulations included in Pavley and EO B-16-12, which address average fuel economy and the commercialization of zero-emission vehicles, respectively. Building energy efficiency is also expected to increase as a result of compliance with Title 24 building codes, which are expected to move toward zero net energy for new construction and 100 percent renewable energy under SB 350 and SB 100 regulations. With implementation of the Project, PG&E and SVP would continue to pursue the procurement of renewable energy sources to meet their RPS portfolio goals and comply with State regulations. Therefore, the Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. The impact would be ***less than significant***.

Cumulative Impacts

The cumulative geographic context for energy is the service area of PG&E (i.e., the natural gas service area), which comprises the larger Northern California area, and the service area of SVP (i.e., the electricity service area), which comprises Santa Clara and the list of projects identified in Table 3-2 and shown in Figure 3-1 in Chapter 3, *Environmental Impact Analysis*.

Impact C-EN-1: Cumulative Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources. The Project, in combination with other past, present and foreseeable development in the vicinity, would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during Project construction and operation. (Less than Significant)

Construction and Operation

Continued growth throughout PG&E's and SVP's service areas could contribute to ongoing increases in demand for natural gas and electricity, respectively. These anticipated increases would be countered, in part, as State and local requirements related to renewable energy become more stringent and energy efficiency increases. The extent to which cumulative development through 2034 (identified in Chapter 3, *Environmental Impact Analysis*), the Project's build-out year, could result in the wasteful, inefficient, or unnecessary consumption of energy resources would depend on the specific characteristics of new development, which are not known at this time. However, it can be assumed that new development, such as the future projects under the Patrick Henry Specific Plan and Freedom Circle Focus Area, would incorporate energy-saving features during construction and operation, similar to the Project. As discussed previously, SB 100 obligates utilities to supply 100 percent carbon-free electricity by 2045. SVP is on track to provide 60 percent of its energy from renewable sources by 2030 and currently projected to meet the new SB 100 goal, which calls for 100 percent of energy to come from GHG-free resources by 2045. Similarly, the Pavley standards are expected to increase average fuel economy to roughly 54.5 miles per gallon by 2025, thereby lowering the demand for fossil fuels. Therefore, it is anticipated that future energy users will become more efficient and less wasteful over time and will not create significant cumulative energy impacts.

As stated above, build-out of the Project would increase operational energy consumption on the Project site by approximately 788,067 million BTUs compared with existing conditions; however, energy use by gsf would increase only slightly, even with the approximately 35-fold increase in building area compared with existing conditions. This is attributable to the energy efficiency of the future buildings, as well as vehicles, which would be subject to increasingly robust regulations over time to meet the State's renewable energy and efficiency mandates. The Project would encourage building design features that reduce energy consumption and increase renewable energy generation. Moreover, the increasingly stringent energy efficiency requirements from local and State government would ensure that cumulative development through 2034 (identified in Chapter 3, *Environmental Impact Analysis*), such as the future projects under the Patrick Henry Specific Plan and Freedom Circle Focus Area, would incorporate energy-saving features during construction and operation in the future and that energy usage would be minimized. Because a significant cumulative energy impact would not result under cumulative conditions, the Project would not contribute to a cumulative impact. Therefore, the cumulative impact would be ***less than significant***, and no mitigation would be necessary.

Impact C-EN-2: Cumulative Conflict with Energy Plan. The Project, in combination with other past, present and foreseeable development in the vicinity, would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency during construction or operation. (Less than Significant)

Construction and Operation

Cumulative development would be required to comply with all adopted State and local renewable energy or energy efficiency regulations and plans. Cumulative development through 2034 (identified in Chapter 3, *Environmental Impact Analysis*), such as the future projects under the Patrick Henry Specific Plan and Freedom Circle Focus Area, would incorporate energy-saving features during construction and operation, similar to the Project, which would most likely result in compliance with adopted State and local renewable energy or energy efficiency regulations and plans. Because a significant cumulative energy impact would not occur under cumulative conditions, the Project would not contribute to a cumulative impact. Therefore, cumulative impacts would be ***less than significant***, and no mitigation would be necessary.

3.6 Noise

This section describes the environmental and regulatory setting for noise and vibration within and around the Mission Point Project (Project) site and evaluates the potential for impacts related to noise and vibration as a result of development of the Project.

Comments pertaining to noise and vibration were received in response to the Notice of Preparation (NOP) (Appendix 1). The comments included requests to avoid the use of pile-driving equipment for Project construction because of the potentially significant noise and vibration impacts on the surrounding community and restrict Project construction to weekdays between 7:00 a.m. and 6:00 p.m. and Saturdays between 8:00 a.m. and 5:00 p.m. Other comments requested no construction activity on Sundays or holidays. Concerns expressed in the NOP comments are addressed in the analysis of noise and vibration impacts provided below.

Overview Noise and Sound

A brief description of the noise and vibration concepts and terminology used in this assessment is provided below. Some of these are technical terms used in measuring sound and its effects, which are not easily explained in layman's terms.

- **Sound**. A vibratory disturbance transmitted by pressure waves through a medium such as air or water and capable of being detected by a receiving mechanism, such as the human ear or a microphone. Sound is characterized by various parameters, including the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level is the most common descriptor used to characterize the loudness of an ambient (existing) sound level.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable. Commonly defined as unwanted sound that annoys or disturbs people and potentially causes an adverse psychological or physiological effect on human health.
- **Decibel (dB).** A unitless measure of sound on a logarithmic scale that indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micropascals. Although the dB scale is used to quantify sound intensity, it does not accurately describe how sound intensity is perceived by human hearing.
- **A-weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear. The dBA scale is the most widely used scale for environmental noise assessments. Table 3.6-1 summarizes typical A-weighted sound levels for different noise sources.
- **Maximum Sound Levels (L_{max}).** The maximum sound level measured during the measurement period.
- **Minimum Sound Level (L_{min}).** The minimum sound level measured during the measurement period.
- **Equivalent Sound Level (L_{eq})**. The equivalent steady-state sound level that, in a stated period of time, contains the same acoustical energy. The 1-hour A-weighted equivalent sound level (L_{eq} 1h) is the energy average of A-weighted sound levels occurring over a 1-hour period.

Table 3.6-1. Typical A-weighted Sound Levels

Common Outdoor Activities	Sound Level (dBA)	Common Indoor Activities
	110	Rock band
Jet flyover at 1,000 feet		
	100	
Gas lawnmower at 3 feet		
	90	
Diesel truck at 50 mph at 50 feet		Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower at 100 feet	70	Vacuum cleaner at 3 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60	
		Large business office
Quiet urban area, daytime	50	Dishwasher in next room
Quiet urban area, nighttime	40	Theater, large conference room (background)
Quiet suburban area, nighttime		
	30	Library
Quiet rural area, nighttime		Bedroom at night, concert hall (background)
Rustling of leaves	20	
		Broadcast/recording studio
	10	
Lowest threshold of human hearing	0	Lowest threshold of human hearing

Source: Federal Transit Administration. 2018. *Transit Noise and Vibration Impact Assessment*. FTA Report 0123. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed: August 22, 2023.

- **Day-Night Level (L_{dn}).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with a 10 dB penalty added to sound levels between 10:00 p.m. and 7:00 a.m.
- **Community Noise Equivalent Level (CNEL).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added to the sound levels occurring during the period from 7:00 p.m. to 10:00 p.m. and 10 dB added to the sound levels occurring during the period from 10:00 p.m. to 7:00 a.m. L_{dn} and CNEL are typically within 1 dBA of each other and, for all intents and purposes, interchangeable.
- **Vibration Velocity Level (or Vibration Decibel Level, VdB).** The root-mean-square velocity amplitude for measured ground motion expressed in dB.
- **Peak Particle Velocity (PPV).** A measurement of ground vibration, defined as the maximum speed at which a particle in the ground is moving and expressed in inches per second (in/sec).
- **Sensitive Receptor.** Noise- and vibration-sensitive receptors, including land uses where quiet environments are necessary for enjoyment and public health and safety. Residences, schools, motels and hotels, libraries, religious institutions, hospitals, and nursing homes are examples.

Human sound perception, in general, is such that a change in sound level of 1 dB cannot typically be perceived by the human ear, a change in sound level of 3 dB is just noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level. A doubling of actual sound energy is required to result in a 3 dB (i.e., barely noticeable) increase in noise; in practice, this means that the volume of traffic on a roadway would typically need to double to result in a noticeable increase in noise.

The decibel level of a sound decreases (or attenuates) exponentially as the distance from the source of that sound increases. For a point source, such as a stationary compressor or construction equipment, sound attenuates at a rate of 6 dB per doubling of distance. For a line source, such as free-flowing traffic on a freeway, sound attenuates at a rate of 3 dB per doubling of distance. Atmospheric conditions, including wind, temperature gradients, and humidity, can change how sound propagates (or travels) over distance and affect the level of sound received at a given location. The degree to which the ground surface absorbs acoustical energy also affects sound propagation. Sound that travels over an acoustically absorptive surface, such as grass, attenuates at a greater rate than sound that travels over a hard surface, such as pavement. The increased attenuation is typically in the range of 1 to 2 dB per doubling of distance. Barriers, such as buildings and topography, that block the line of sight between a source and receiver also increase the attenuation of sound over distance.

Community noise environments are generally perceived as quiet when the 24-hour average noise level is below 45 dBA, moderate in the 45 to 60 dBA range, and loud above 60 dBA. Very noisy urban residential areas are usually around 70 dBA CNEL. Along major thoroughfares, roadside noise levels are typically between 65 and 75 dBA CNEL. Incremental increases of 3 to 5 dB to the existing 1-hour L_{eq} or CNEL are commonly used as thresholds for an adverse community reaction to a noise increase. However, there is evidence that incremental thresholds in this range may not be adequately protective in areas where noise-sensitive uses are located and CNEL is already high (i.e., above 60 dBA). In these areas, limiting noise increases to 3 dB or less is recommended. Noise intrusions that cause short-term interior levels to rise above 45 dBA at night can disrupt sleep. Exposure to noise levels greater than 85 dBA for 8 hours or longer can cause permanent hearing damage.

Ground-borne Vibration

Vibration is an oscillatory motion, meaning a motion with a repetitive rhythm, through a solid medium. Vibration can be quantified in terms of velocity or acceleration. Variations in geology and distance result in different vibration levels. In all cases, vibration amplitudes decrease with increased distance. The amplitude of a seismic or sound wave is the maximum displacement, or distance, between the peak and valley of the wave.

The operation of heavy construction equipment, particularly pile-driving equipment and other impact devices (e.g., pavement breakers) if being used on a project, creates seismic waves that radiate along the surface and downward into the ground. Surface waves can be felt as ground vibration. Vibration from the operation of construction equipment can result in effects that range from annoyance for people to damage for structures. However, according to the Federal Transit Administration (FTA), "ground-borne vibration is almost never a problem outdoors. Although the motion of the ground may be perceived, without the effects associated with the shaking of a building, the motion does not provoke the same adverse human reaction."[1]

[1] Federal Transit Administration. 2018. *Transit Noise and Vibration Impact Assessment*. FTA Report No. 0123. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed: August 22, 2023.

Perceptible ground-borne vibration is generally limited to areas within a few hundred feet of construction activities. As seismic waves travel outward from a vibration source, they cause rock and soil particles to oscillate. The actual distance that these particles move is usually only a few ten-thousandths to a few thousandths of an inch. The rate or velocity (in inches per second) at which these particles move (in inches per second) is the commonly accepted descriptor of vibration amplitude, referred to as peak particle velocity (PPV).

Existing Conditions

Regulatory Setting

Federal

No federal laws, regulations, or policies for construction-related noise and vibration directly apply to the Project. However, the FTA has developed general assessment criteria for analyzing construction noise. Although FTA standards are intended for federally funded mass-transit projects, the impact assessment procedures and criteria included in the FTA's *Transit Noise and Vibration Impact Assessment Manual*[2] are routinely used to evaluate the variety of projects proposed by local jurisdictions, not just transit projects.

The FTA construction guidelines state that each A-weighted sound level increase of 10 dB corresponds to an approximate doubling of subjective loudness. As a result, a 10 dB increase in the ambient noise level is often used as the threshold for determining if an increase in ambient noise levels caused by construction would be considered substantial.

State

Title 24 of the California Code of Regulations, Noise Insulation Standards

California Code of Regulations Title 24, Part 2, Sound Transmission, establishes minimum noise insulation standards to protect persons within new hotels, motels, dormitories, long-term care facilities, apartment houses, and dwellings other than single-family residences. Under this regulation, interior noise levels attributable to exterior noise sources cannot exceed 45 dB in any habitable room. The noise metric is either the L_{dn} or the CNEL. Compliance with Title 24 interior noise standards occurs during the permit review process and generally protects a project's users from existing ambient outdoor noise levels. If determined necessary, a detailed acoustical analysis of exterior wall and window assemblies may be required.

California Department of Transportation

The California Department of Transportation (Caltrans) provides guidelines regarding vibration associated with construction and operation of transportation infrastructure. Table 3.6-2 provides Caltrans' vibration guidelines for potential damage to different types of structures. Generally, people are more sensitive to vibration during nighttime hours, when sleeping, rather than daytime hours. Numerous studies have been conducted to characterize the human response to vibration. Table 3.6-3 provides Caltrans' guidelines regarding vibration annoyance potential (expressed here as PPV).

[2] Ibid.

Table 3.6-2. Caltrans Vibration Guidelines for Potential Damage to Structures

	Maximum Peak Particle Velocity (PPV, in/sec)	
Structure Type and Condition	**Transient Sources**	**Continuous/Frequent Intermittent Sources**
Extremely fragile historic buildings	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: California Department of Transportation. 2020. *Transportation and Construction Vibration Guidance Manual*. April. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf. Accessed: January 11, 2023.

Note: Transient sources create a single, isolated vibration event (e.g., blasting or the use of drop balls). Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Table 3.6-3. Caltrans Guidelines for Vibration Annoyance Potential

	Maximum PPV (in/sec)	
Human Response	**Transient Sources**	**Continuous/Frequent Intermittent Sources**
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Source: California Department of Transportation. 2020. *Transportation and Construction Vibration Guidance Manual*. April. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf. Accessed: August 22, 2023.

Note: Transient sources create a single, isolated vibration event (e.g., blasting or the use of drop balls). Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Local

City of Santa Clara 2010–2035 General Plan

The City of Santa Clara (City) 2010–2035 General Plan (General Plan) outlines the levels of exterior noise that are considered compatible with residential, educational, recreational, commercial, industrial, and open space land uses (subject to further regulation by City Code).[3] For residential and educational uses, exterior noise levels of 55 dBA CNEL are considered compatible, while levels between 55 and 70 dBA CNEL require design and insulation measures to reduce noise levels. Noise levels above 70 dBA CNEL are considered incompatible for residential and educational land uses. For recreational and commercial land uses, exterior noise levels of 65 dBA CNEL are considered compatible, while levels between 65 and 75 dBA CNEL require design and insulation measures to reduce noise levels. Noise levels above 75 dBA CNEL are considered incompatible for recreational and commercial land uses.

[3] City of Santa Clara. 2011. *Draft 2010–2035 General Plan Integrated Final Environmental Impact Report*. Available: https://www.santaclaraca.gov/home/showpublisheddocument/12900/635713044859030000. Accessed: August 29, 2023.

The General Plan contains a number of policies that pertain to the effects of noise on land uses. Policies that are relevant to the Project are included below.

- **Goal 5.10.6-G1.** Noise sources restricted to minimize impacts in the community.
- **Goal 5.10.6-G2:** Sensitive uses protected from noise intrusion.
- **Goal 5.10.6-G3:** Land use, development, and design approvals that take noise levels into consideration.
    - *Policy 5.8.7-P5.* Require new development to implement appropriate measures to reduce the negative effects, such as noise and vibration, of rail and freight services.
    - *Policy 5.10.6-P1.* Review all land use and development proposals for consistency with the General Plan compatibility standards and acceptable noise exposure levels defined in Table 5.10-1.
    - *Policy 5.10.6-P2.* Incorporate noise attenuation measures for all projects that have noise exposure levels greater than General Plan "normally acceptable" levels, as defined in Table 5.10-1.
    - *Policy 5.10.6-P3.* New development should include noise control techniques to reduce noise to acceptable levels, including site layout (setbacks, separation, and shielding), building treatments (mechanical ventilation system, sound-rated windows, solid-core doors, and baffling) and structural measures (earthen berms and soundwalls).
    - *Policy 5.10.6-P4.* Encourage the control of noise at the source through site design, building design, landscaping, hours of operation, and other techniques.
    - *Policy 5.10.6-P5.* Require noise-generating uses near residential neighborhoods to include solid walls and heavy landscaping along common property lines and to place compressors and mechanical equipment in sound-proof enclosures.
    - *Policy 5.10.6-P6.* Discourage noise-sensitive uses, such as residences, hospitals, schools, libraries, and rest homes, from areas with high noise levels, and discourage high noise-generating uses from areas adjacent to sensitive uses.
    - *Policy 5.10.6-P7.* Implement measures to reduce interior noise levels and restrict outdoor activities in areas subject to aircraft noise in order to make office/research-and-development (R&D) uses compatible with the Norman Y. Mineta San José International Airport land use restrictions.
    - *Policy 5.10.6-P8.* Continue to encourage safe and compatible land uses within the Norman Y. Mineta San José International Airport Noise Restriction Area.
    - *Policy 5.10.6-P9.* Work with the Norman Y. Mineta San José International Airport to implement mitigation from aircraft noise to the fullest extent possible.
    - *Policy 5.10.6-P11.* Develop and include noise reduction measures with improvements and extensions of city streets.

Santa Clara City Code

Chapter 9.10 of the City Code further regulates noise and vibration in Santa Clara. The purpose of the noise ordinance is to protect the public welfare by limiting unnecessary, excessive, and unreasonable noise or vibration. Per Section 9.10.070 of the City Code, the City's noise and vibration regulations do not apply to construction activities within allowed hours, which, pursuant to Section 9.10.230, are between 7:00 a.m. and 6:00 p.m. Monday through Friday and 9:00 a.m. and 6:00 p.m. on Saturdays, excluding holidays, for

construction sites within 300 feet of any residentially zoned property. Section 9.10.040 specifies the exterior noise limits that apply to land use zones within Santa Clara. Table 3.6-4 shows the exterior noise limits of the City Code.

Table 3.6-4. Santa Clara City Code Schedule A Exterior Sound or Noise Limits

Receiving Zone Zoning Category	Time Period	Maximum Noise Level (dBA)
Category 1		
Single-family and duplex residential (R1, R2):	Commencing at 7:00 a.m. and ending at 10:00 p.m. that evening	55
	Commencing at 10:00 p.m. and ending at 7:00 a.m. the following morning	50
Category 2		
Multiple-family residential, public space (R3, B):	Commencing at 7:00 a.m. and ending at 10:00 p.m. that evening	55
	Commencing at 10:00 p.m. and ending at 7:00 a.m. the following morning	50
Category 3		
Commercial, Office (C, O):	Commencing at 7:00 a.m. and ending at 10:00 p.m. that evening	65
	Commencing at 10:00 p.m. and ending at 7:00 a.m. the following morning	60
Category 4		
Light Industrial (ML, MP):	Anytime	70
Heavy Industrial (MH):	Anytime	75

Section 9.10.230 of the City Code establishes the following additional requirement for construction work:

> Construction activities are not permitted within "300 feet of any residentially zoned property except within the hours of 7:00 a.m. to 6:00 p.m. following on weekdays other than holidays, Monday through Friday, inclusive; and within the hours of 9:00 a.m. and 6:00 p.m. following, inclusive, on any Saturday which is not a holiday." No construction is permitted on Sundays or holidays.

Section 9.10.050 of the City Code pertains to vibration:

> It shall be unlawful for any person to operate or cause, permit, or allow the operation of any fixed source of disturbing, excessive, or offensive vibration on property owned, leased, occupied, or otherwise controlled by such person such that the vibration originating from such source is above the vibration perception threshold of an individual at the closest property line point to the vibration source on the real property affected by the vibration.

Section 9.10.100 of the City Code establishes the following special permit process for noise, sound, or vibration sources that exceed the above-stated maximum allowable levels:

> A special permit may be granted to allow an exception for a limited duration from the City's noise and vibration provisions for certain noise, sound, or vibration sources that exceed the above-stated maximum allowable levels, provided that it is necessary and beneficial to the public welfare of the city.

Santa Clara County Airport Land Use Commission

The Santa Clara Airport Land Use Commission (ALUC) was established to ensure appropriate development of areas surrounding public airports in Santa Clara County. Its intent is to minimize the public's exposure to excessive noise and safety hazards and ensure that the approaches to airports are kept clear of structures that could pose an aviation hazard. The ALUC formulates and maintains Comprehensive Land Use Plans (CLUPs) for airports within the county. The ALUC reviews general plans and applicable specific plans for the county as well as the cities of San José and Santa Clara to determine if the plans and regulations are consistent with the policies of the CLUP for San José International Airport. The ALUC also reviews proposed amendments to general plans, specific plans, and zoning and building regulations that may affect land uses in the Airport Influence Area (AIA) of San José International Airport to determine if the proposed amendments are consistent or inconsistent with the CLUP.

The CLUP for San José International Airport includes several policies that pertain to noise compatibility and are relevant to the Project.[4]

- *Policy N-1.* The CNEL method of representing noise levels shall be used to determine if a specific land use is consistent with the CLUP.
- *Policy N-2.* In addition to the other policies herein, the noise compatibility policies presented in Table 4-1 [Table 3.6-5, below] shall be used to determine if a specific land use is consistent with this CLUP.
- *Policy N-3.* Noise impacts shall be evaluated according to the Aircraft Noise Contours presented in Figure 5 [2022 Aircraft Noise Contours].
- *Policy N-4.* No residential or transient lodging construction shall be permitted within the 65 dB CNEL contour boundary unless it can be demonstrated that the resulting interior sound levels will be less than 45 dB CNEL and no outdoor patios or outdoor activity areas are associated with the residential portion of a mixed-use residential project or a multi-unit residential project. (Soundwall noise mitigation measures are not effective in reducing noise generated by aircraft flying overhead.)
- *Policy N-5.* All property owners within the AIA who rent or lease their property for residential use shall include in their rental/lease agreement a statement advising the tenant that he or she is living within a high noise area and the exterior noise level is predicted to be greater than 65 dB CNEL in a manner that is consistent with current State law, including Assembly Bill 2776 (2002).
- *Policy N-6.* Noise level compatibility standards for other types of land uses shall be applied in the same manner as the above residential noise level criteria. Table 4-1 [Table 3.6-5, below] presents acceptable noise levels for other land uses in the vicinity of the airport.
- *Policy N-7.* Single-event noise levels from single aircraft overflights are also to be considered when evaluating the compatibility of highly noise-sensitive land uses such as schools, libraries, outdoor theaters, and mobile homes. Single-event noise levels are especially important in the areas that are regularly overflown by aircraft but may not produce significant CNEL contours, such as the down-wind segment of the traffic pattern and airport entry and departure flight corridors.

The CLUP also summarizes land use compatibility standards from the General Plan for the impact area of San José International Airport, as shown in Table 3.6-5.

[4] Santa Clara County Airport Land Use Commission. 2016. *Norman Y. Mineta San José International Airport Comprehensive Land Use Plan*. Available: https://stgenpln.blob.core.windows.net/document/ALUC_SJC_CLUP.pdf. Accessed: August 22, 2023.

Table 3.6-5. CLUP Land Use Compatibility Standards

	CNEL					
Land Use Category	**55–60**	**60–65**	**65–70**	**70–75**	**75–80**	**80–85**
Residential (low-density single-family, duplex, mobile homes)	*	**	***	****	****	****
Residential (multi-family, condominiums, townhouses)	*	**	***	****	****	****
Transient lodging (motels, hotels)	*	*	**	****	****	****
Schools, libraries, indoor religious assemblies, hospitals, nursing homes	*	***	****	****	****	****
Auditoriums, concert halls, amphitheaters	*	***	***	****	****	****
Sports arenas, outdoor spectator sports, parking	*	*	*	**	***	****
Playgrounds, neighborhood parks	*	*	***	****	****	****
Golf courses, riding stables, water recreation areas, cemeteries	*	*	*	**	***	****
Office buildings, business commercial and professional, retail	*	*	**	***	****	****
Industrial, manufacturing, utilities, agriculture	*	*	*	***	***	****

* Generally Acceptable: Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction, without special noise-insulation requirements. Mobile homes may not be acceptable in these areas. Some outdoor activities may be adversely affected.

**Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise-reduction requirements is made and needed noise insulation features are included in the design. Outdoor activities may be adversely affected.

Residential: Conventional construction, but with closed windows and fresh-air supply systems or air-conditioning, will normally suffice.

*** Generally Unacceptable: New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise-reduction requirements must be made and needed noise insulation features must be included in the design. Outdoor activities are likely to be adversely affected.

**** Unacceptable: New construction or development shall not be undertaken.

Environmental Setting

Principal Noise Sources in the Project Area

The ambient noise environment in Santa Clara is affected by a variety of noise sources, including vehicular traffic, trains, aircraft, and other existing sources. The section that follows describes the existing noise environment and identifies the primary noise sources in the vicinity of the Project site.

Existing Traffic Noise

Motor vehicles, with their distinctive noise characteristics, are a major source of noise in Santa Clara. The level of noise varies, according to factors such as the volume of traffic, vehicle mix (i.e., percentage of cars and trucks), average traffic speed, and distance from the observer. Vehicular traffic, along with aircraft traffic, is a main source of noise in the Project area. Primary noise-generating roadways in the vicinity of the Project site include Lawrence Expressway (approximately 3,100 feet to the west), Great America Parkway (approximately 500 feet to the east), Tasman Drive (adjacent to the northern boundary of the Project site), US 101 (approximately 3,500 feet to the south), and State Route (SR) 237 (approximately

3,200 feet to the northwest). However, according to the City's General Plan Environmental Impact Report (EIR) and the City of Sunnyvale Land Use and Transportation Element Draft EIR, as depicted in Figure 3.6-1, which shows noise contours for major roadways and railroads, the majority of the Project site is not within a noise contour of 60 dBA CNEL/L_{dn} or greater associated with major roads and railways. The majority of the Project site is not exposed to roadway and railroad noise that would be above 60 dBA.[5, 6] Most land uses are considered compatible with noise levels below this level. Specifically, office buildings and commercial uses are considered compatible with exterior noise levels of 65 dBA CNEL/L_{dn} or lower. Residential uses are considered compatible with noise levels below 60 dBA as long as design and insulation measures are implemented to reduce noise levels. The northern border of the Project site would fall within the 60 to 65 dBA CNEL/L_{dn} noise contour. Land uses in this area of the Project site would be primarily office/commercial uses, which are considered compatible with exterior noise levels of 65 dBA CNEL/L_{dn} or lower.

Existing Train Noise

Two rail lines that support both passenger and freight service traverse Santa Clara. The San Francisco rail line transects Santa Clara in a generally east–west direction and forms a boundary between residential uses to the south and industrial uses to the north. The other rail line parallels Lafayette Street from the northern portion of Santa Clara where it crosses under US 101. The San Francisco rail line is approximately 2 miles south of the Project site; the Lafayette Street rail line is approximately 4,000 feet east of the Project site. The City's General Plan states that the San Francisco rail line generates a noise level of about 65 dBA CNEL at a distance of 100 feet, and the Lafayette Street rail line generates a noise level of about 64 dBA CNEL at a distance of 100 feet.[7] Therefore, although the Project site may receive some noise from existing rail lines, it does not fall within or near the 65 dBA CNEL noise contours for either line. Therefore, the Project site would not be greatly affected by noise from rail lines. Furthermore, the Santa Clara Valley Transportation Authority (VTA) operates several light rail stops along Tasman Drive north of the Project site, including Reamwood Station and Great America Station. However, as mentioned above, according to the City's General Plan EIR and the City of Sunnyvale Land Use and Transportation Element Draft EIR, as depicted in Figure 3.6-1, which shows noise contours for major roadways and railroads, the majority of the Project site is not within a noise contour of 60 dBA CNEL/L_{dn} or greater associated with major roads and railways. The majority of the Project site would not be exposed to roadway and railroad noise above 60 dBA.[8, 9] Most land uses are considered compatible with noise levels below this level. Specifically, office buildings and commercial uses are considered compatible with exterior noise levels of 65 dBA CNEL/L_{dn} or lower. Residential uses are considered compatible with noise

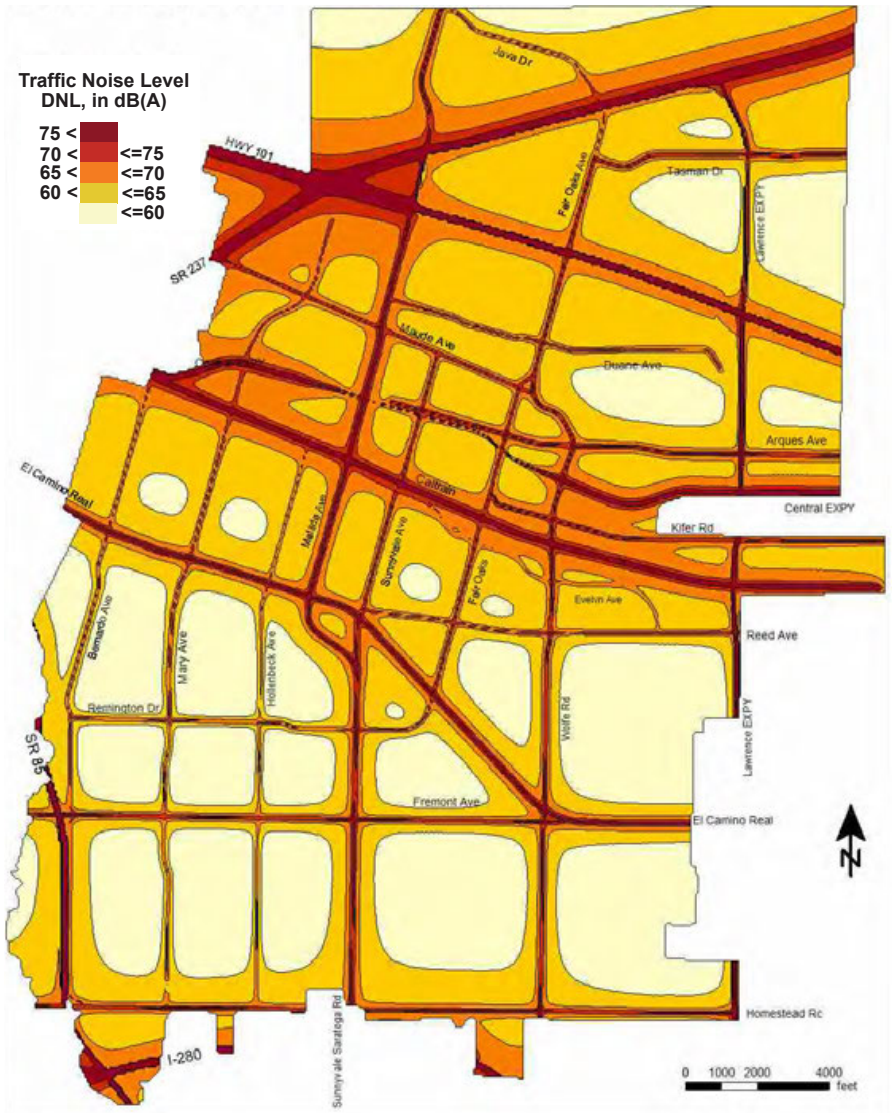
5 City of Santa Clara. 2011. *Integrated Final EIR for the City of Santa Clara 2010–2035 General Plan*. Available: https://www.santaclaraca.gov/home/showpublisheddocument/12900/635713044859030000. Accessed: August 22, 2023.

6 City of Sunnyvale. 2016. *Land Use and Transportation Element Draft Environmental Impact Report*. Available: https://www.sunnyvale.ca.gov/home/showpublisheddocument/608/637819113538930000. Accessed: August 22, 2023.

7 City of Santa Clara. 2011. *Integrated Final EIR for the City of Santa Clara 2010–2035 General Plan*. Available: https://www.santaclaraca.gov/home/showpublisheddocument/12900/635713044859030000. Accessed: August 22, 2023.

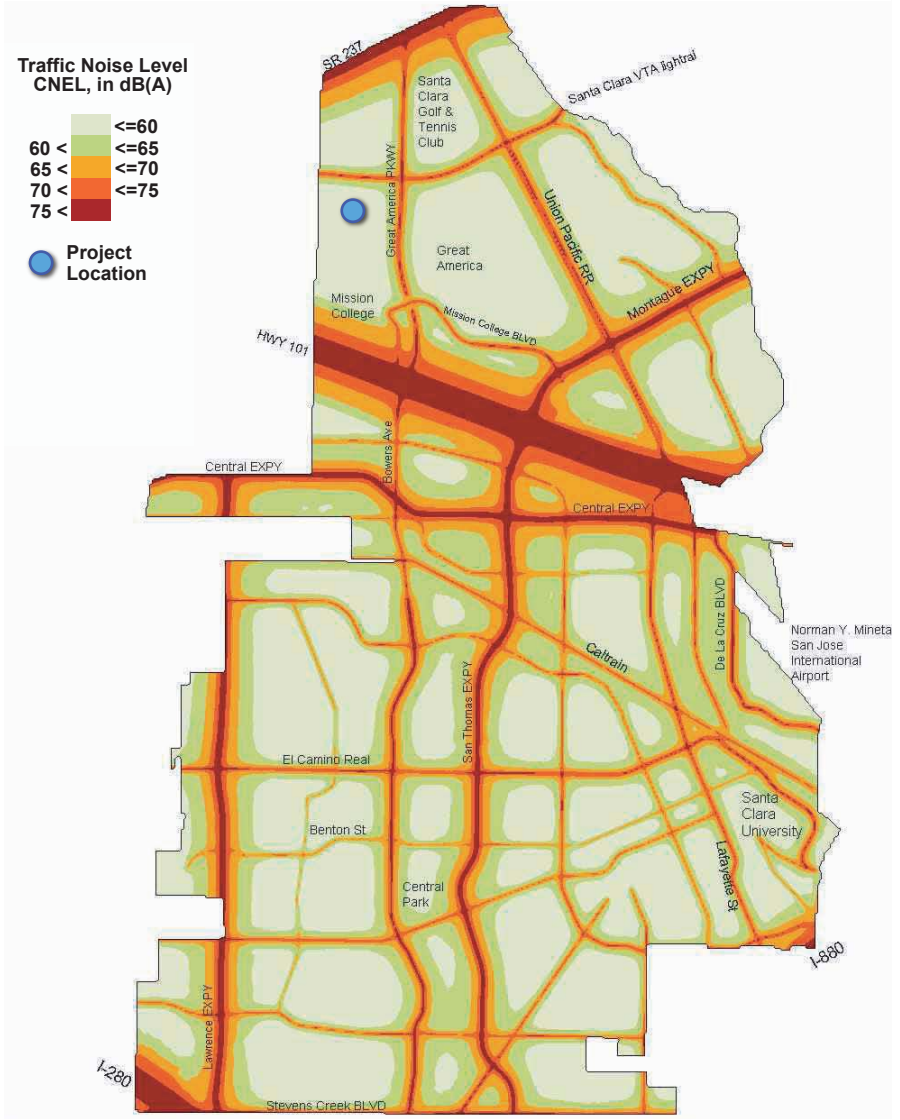
8 City of Santa Clara. 2011. *Integrated Final EIR for the City of Santa Clara 2010–2035 General Plan*. Available: https://www.santaclaraca.gov/home/showpublisheddocument/12900/635713044859030000. Accessed: August 22, 2023.

9 City of Sunnyvale. 2016. *Land Use and Transportation Element Draft Environmental Impact Report*. Available: https://www.sunnyvale.ca.gov/home/showpublisheddocument/608/637819113538930000. Accessed: August 22, 2023.



City of Sunnyvale

Source: City of Sunnyvale, 2016



City of Santa Clara

Source: City of Santa Clara, 2011

Figure 3.6-1

2035 Ground Transportation Noise Contours from the Sunnyvale and Santa Clara General Plan

Mission Point Project

levels below 60 dBA as long as design and insulation measures are implemented to reduce noise levels. The northern border of the Project site would fall within the 60 to 65 dBA CNEL/L_{dn} noise contour. Land uses in this area of the Project site would be primarily office/commercial uses, which are considered compatible with exterior noise levels of 65 dBA CNEL/L_{dn} or lower.

Existing Aircraft Noise

The closest airport to the Project site is San José International Airport, which is approximately 3 miles away. The Project site is adjacent to but outside the AIA of San José International Airport (Figure 3.1-3). The Project would include utility work within Old Ironsides Drive, which is within the AIA of San José International Airport. However, the Project site is not within areas that are exposed to aircraft noise (i.e., above 65 dBA) from San José International Airport (Figure 3.1-4).[10] Therefore, although the Project site may receive some noise from aircraft, it would not be greatly affected by noise from aircraft.

Other Existing Noise Sources

Other existing sources of noise include noise from commercial, recreational, and school uses. Noise sources associated with commercial uses include mechanical equipment as well as activities associated with parking lots, truck loading areas, and drive-through lanes. Mechanical equipment is used extensively in buildings to provide heating, cooling, air circulation, and a water supply. Mechanical equipment that produces noise includes motors, pumps, and fans. Intermittent or temporary noise sources include portable power equipment such as leaf blowers, lawn mowers, portable generators, electric saws and drills, and other similar equipment. For uses located near major roads or thoroughfares, noise at noise-sensitive land uses from constant traffic generally exceeds the noise generated by the individual and often intermittent noise sources at industrial uses.

Surrounding Land Uses

The Project site falls within a light industrial district bounded by Tasman Drive to the north, Old Ironsides Drive to the east, the right-of-way associated with the Hetch Hetchy aqueduct to the south, and Patrick Henry Drive to the west. Existing uses immediately adjacent to the Project site include mostly low-intensity office/R&D uses within areas zoned for light industrial and planned development. The nearest noise-sensitive uses are the residences west of Calabazas Creek, approximately 600 feet west of the Project site, and the Hilton Santa Clara hotel, approximately 800 feet northeast of the Project site.

Existing Noise Levels

Existing ambient noise levels in the Project vicinity are characterized largely by aircraft traffic and vehicular traffic on roadways in the area. In addition, mechanical equipment at existing uses contributes to the overall ambient noise level. Examples of this include the heating, ventilation, and air-conditioning (HVAC) equipment at the Cyxtera Silicon Valley Data Center along the southern border of the Project site. Due to the nature of the facility and the need to keep data storage facilities cooled, HVAC noise may be more intense than typical noise from residential or office equipment. In addition, this facility has multiple emergency generators. Although the generators were not in use during field measurements, they do require regular testing. Furthermore, noise from pressurized air

[10] Windus, Walter B. 2011. *Comprehensive Land Use Plan for San José International Airport*. Santa Clara County Airport Land Use Commission. Adopted: May 25, 2011. Amended: November 16, 2016.

tanks at the Fabrinet West facility, located west of the Project site, was audible. To determine the existing ambient noise levels in the Project area, long-term (24-hour) and short-term (20-minute) ambient noise measurements were conducted between Tuesday, October 5, and Wednesday, October 6, 2022. On these days, skies were overcast, with wind speeds averaging to 1.1 miles per hour.

Long-term measurements were conducted using Piccolo II Type 2 sound-level meters. The meters measured 1-hour-equivalent noise levels (L_{eq}) for a period of approximately 24 hours. The 1-hour data were used to generate 24-hour average noise levels. The long-term data were used to calculate day-night noise levels (L_{dn}), community noise equivalent levels (CNEL), and average 12-hour L_{eq} noise levels for the daytime hours of 7:00 a.m. to 7:00 p.m. In addition, the data were analyzed to determine the highest and lowest 1-hour L_{eq} level recorded during the measurement window.

Noise levels were measured at three long-term locations near the Project site. Day-night noise levels from the long-term measurements ranged from 59.0 to 62.2 dBA L_{dn}, with higher noise levels generally corresponding to areas near busier roadways (e.g., Tasman Drive and Patrick Henry Drive) and lower noise corresponding to areas farther from the roadways. The long-term noise measurement locations were selected to represent existing noise conditions in nearby residential neighborhoods surrounding the Project site. In addition, six short-term noise measurements were conducted near the Project site. Short-term measurements were measured using a Larson Davis 831 Type 1 sound-level meter, which measured equivalent noise levels (L_{eq}) every 10 seconds for 20 minutes as well as overall L_{eq} averaged over the 20-minute measurement interval. The measured short-term noise levels ranged from 52.2 to 61.8 dBA L_{eq}.

Long- and short-term monitoring locations were selected to capture noise levels from areas with ambient levels that are representative of the noise levels found throughout the day and night near the Project site and in areas that have noise-sensitive receptors, such as residents west of the Project site and hotel guests to the east.

All noise measurement locations are shown in Figure 3.6-2. The relevant noise data from the noise measurement survey are shown in Tables 3.6-6 and 3.6-7 for the long- and short-term noise measurements, respectively. Refer to Appendix 3.6 for the complete dataset of noise measurement data from the field survey. As indicated in Appendix 3.6, the noise data graph for LT-3 shows a relatively large increase in noise levels at the 12:00 p.m. hour, which may be the result of atypical or intermittent sources, such as landscaping equipment. The long-term meters were not supervised; therefore, it is not known what caused the temporary increase in noise at 12:00 p.m. Consequently, an additional short-term measurement was conducted at the LT-3 location at a similar time of day to provide additional information and characterize the noise environment at this location. Therefore, as shown in Figure 3.6-2, noise measurements at LT-3 and ST-6 were conducted at the same location.

Environmental Impacts

This section describes the impact analysis related to noise for the Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.



Graphics ... 103980 (10-06-2023) JC

Figure 3.6-2
Existing Noise-Sensitive Land Uses and Noise Measurement Locations
Mission Point Project

Table 3.6-6. Long-Term Noise Level Measurements in and around the Project site, October 5 and 6, 2022

Site	Site Description	Nearest Land Uses	L_{dn}	CNEL	Highest Recorded 1-Hour L_{eq}[a]	Lowest Recorded 1-Hour L_{eq}[b]	12-Hour L_{eq}[c]
LT-1	Meter on tree branch, northwest corner of 4800 Patrick Henry Drive parking lot	Office and Residential (mobile homes)	59.0	59.4	57.4	49.7	55.2
LT-2	Meter on light pole, at the intersection of Prescott Avenue and Palamos Avenue	Residential (single-family homes)	59.0	59.4	60.0	45.6	56.2
LT-3	Meter on light pole, northeast of 4701 Patrick Henry Drive, Building 17	Office	62.2	62.5	70.5	51.7	61.4

LT = long-term (24-hour) ambient noise measurement.
All noise levels are reported in A-weighted decibels (dBA).
a. Highest L_{eq} is the highest calculated L_{eq} level during a 24-hour period.
b. Lowest L_{eq} is the lowest calculated L_{eq} level during a 24-hour period.
c. The 12-hour average L_{eq} from 7:00 a.m. to 7:00 p.m.

Table 3.6-7. Short-Term Noise Level Measurements in and around the Project site, October 5 and 6, 2022

Site	Site Description	Nearest Land Uses	Measurement Start Time	L_{eq}	L_{max}	L_{min}	Dominant Noise Source
ST-1	4949 Great America Parkway	Hotel (Hilton Santa Clara)	11:03	61.8	74.0	48.8	Aircraft flying overhead and roadway traffic
ST-2	4699 Old Ironside Drive	Office	10:06	58.3	73.1	50.8	Aircraft flying overhead and roadway traffic
ST-3	3003 Tasman Drive	Office	10:28	57.5	68.8	44.0	Roadway traffic and light rail trains
ST-4	On Project site	Undeveloped; Future Residential	9:50	52.2	68.0	45.0	Aircraft flying overhead and HVAC-type humming from 4700 Old Ironsides Drive
ST-5	4950 Patrick Henry Drive	Office	12:23	56.1	71.3	45.5	Aircraft flying overhead and pressurized air bursts from equipment at 4900 Patrick Henry Drive
ST-6	Northeast of 4701 Patrick Henry Drive, Building 17	Office	11:08	56.5	73.2	46.3	Aircraft flying overhead and HVAC-type humming from equipment at 4700 Old Ironsides Drive

ST = long-term (20-minute) ambient noise measurement.
All noise levels are reported in A-weighted decibels (dBA).

Thresholds of Significance

The Project would have a significant effect if it would result in any of the conditions listed below.

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies (NOI-1, NOI-2, C-NOI-1, and C-NOI-2).
    - For the analysis of construction-related impacts, a substantial temporary increase in ambient noise levels is defined as a 10 dB increase in noise relative to the existing ambient noise levels. As noted above, a 10 dB increase is an approximate doubling of subjective loudness. The City does not identify a threshold for evaluating construction noise increases in the City Code or in the General Plan compatibility criteria. However, CEQA lead agencies can use metrics identified by other expert agencies as thresholds of significance. Although the 10 dB increase metric is from an FTA transportation-related guidance document, the effect of a 10 dB increase on noise-sensitive land uses, a doubling of loudness, would be the same regardless of the type of project being constructed. For these reasons, the 10 dB increase metric is used as a threshold of significance for temporary noise increases during construction.
- Generate excessive ground-borne vibration or ground-borne noise levels (NOI-3 and C-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 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels (NOI-4).

Methods for Analysis

Construction Noise

To determine if construction would result in noise impacts, a screening analysis was conducted to determine which subphases of construction would require the loudest equipment and result in the greatest noise levels, based on the equipment list provided by the Project Sponsor. Table 3.6-8 shows the equipment assumed for each construction phase and the noise levels for each type of equipment, which are based on guidance from the Federal Highway Administration (FHWA).

Phase-specific construction noise modeling was conducted for each subphase of construction on the Project site, assuming that the three loudest pieces of equipment expected to be used during each phase of construction would be operating simultaneously and in proximity to one another on the Project site. Evaluating the noise levels from construction equipment in this way results in a reasonably representative worst-case scenario for the combined noise level. This analysis was completed for two periods of the day: typical daytime construction hours of 7:00 a.m. to 6:00 p.m., during which time construction noise is considered exempt from the local quantitative exterior noise limits of the City Code, and nighttime hours of 6:00 p.m. to 7:00 a.m. In addition, this analysis was conducted both for offsite noise-sensitive land uses (e.g., existing residential uses) and onsite residential land uses that may be occupied by new residents while construction in other areas on the Project site continues.

Although noise from construction activities is permitted by the City Code when occurring within the specified construction hours (7:00 a.m. to 6:00 p.m. Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturdays, excluding holidays), construction activities could still result in a significant physical impact on the environment. Therefore, construction noise generated during daytime hours is compared to the

Table 3.6-8. Construction Noise Equipment Data for Each Construction Phase

Equipment and Phase	L_{max} at 50 feet (dBA)[a]	L_{eq} at 50 feet (dBA)[b]	Acoustical Usage/ Utilization Factor
Activity 1 – Demolition			
Concrete Saw	90	83	20%
Excavator	81	77	40%
Rubber-tired Dozer	82	78	40%
Tractor/Loader/Backhoe	84	80	40%
Activity 2 – Excavation			
Excavator	81	77	40%
Crawler Tractor	84	80	40%
Mini-Excavator	81	77	40%
Activity 3 – Piles			
Pile Driver	101	94	20%
Activity 4 – Trenching			
Tractor/Loader/Backhoe	84	80	40%
Excavator	81	77	40%
Generator	81	78	50%
Plate Compactors	83	76	20%
Activity 5 – Core and Shell			
Tower Crane	81	73	16%
Trawler Crane	81	73	16%
Man and Material Lift	75	68	20%
Aerial Lift	75	68	20%
Welder	74	70	40%
Generator	81	78	50%
Air Compressor	78	74	40%
Rough-terrain Fork Lift[c]	84	80	40%
Activity 6 – Interiors			
Air Compressor	78	74	40%
Man and Material Lift	75	68	20%
Scissor Lift	75	68	20%
Scissor Lift	75	68	20%
Activity 7 – Sitework			
Paver	77	74	50%
Grader	85	81	40%
Roller	80	73	20%
Tractor/Loader/Backhoe	84	80	40%
Bobcat[d]	78	74	40%
Rough-terrain Fork Lift[c]	84	80	40%
Activity 8 – Night Unloading			
Tractor/loader/backhoe	84	80	40%
Tower crane	81	73	16%

Equipment and Phase	L_{max} at 50 feet (dBA)[a]	L_{eq} at 50 feet (dBA)[b]	Acoustical Usage/ Utilization Factor
Activity 9 – Night Utility			
Tractor/loader/backhoe	84	80	40%
Generator	81	78	50%
Plate Compactor	83	76	20%
Paver	77	74	50%
Roller	80	73	20%
Activity 10 – Night Concrete			
Concrete mix trucks	79	75	40%
Concrete pumps	81	74	20%
Power trowels[e]	77	74	50%
Activity 11 – Substation			
Excavator	81	77	40%
Crane	81	73	16%
Lift	75	68	20%
Drill Rig	79	72	20%
Welder	74	70	40%

Notes:
[a.] These values represent the loudest noise levels generated by each equipment type at a distance of 50 feet.
[b.] These values represent the average noise levels generated by each equipment type at a distance of 50 feet.
[c.] Represented by "tractor" from the Federal Highway Administration's *User's Guide*.
[d.] Represented by "backhoe" from the Federal Highway Administration's *User's Guide*.
[e.] Represented by "paver" from the Federal Highway Administration's *User's Guide*.

existing ambient noise level to estimate temporary increases in noise beyond the existing ambient level. As such, the analysis also determines if a 10 dB increase beyond the existing ambient noise level, perceived as a doubling of loudness, would be expected to occur at nearby noise-sensitive land uses. In addition, for construction proposed to occur outside of the exempt daytime hours in the city, the analysis determines if construction noise would comply with applicable exterior noise limits, as defined in the City Code. To evaluate construction noise levels, worst-case assumptions are used to determine what the worst impacts would be because a precise mapping of noise levels within the Project site and vicinity is not possible at this time. As such, the construction noise analysis generally uses the shortest distances that could occur between the equipment and noise-sensitive land uses, such as the distance between the perimeter of the Project site and the residences west of the site. These shortest distances may be representative for only a short period, if at all, because construction would occur throughout the site most of the time and only at the perimeter for a shorter duration.

Construction Haul Truck Noise

Noise from construction haul trucks, which includes truck trips for transporting construction debris, demolition material, and material from grading activities, has been analyzed as a separate part of the construction noise analysis. To conduct this analysis, the Project Sponsor provided data regarding the amount of material transported to or from the site as part of demolition, excavation, and grading activities. An estimate of the reasonable worst-case daily truck volumes was calculated for each construction subphase, and potential noise impacts from the addition of truck trips on existing roadways were analyzed. Most daily truck trips would occur during the excavation and grading subphase in Area A (i.e., Phase 4).

It is anticipated that haul trucks en route to Stevens Creek Quarry or Zanker Recycling would travel east on Old Glory Lane, then north on Great America Parkway. Although it is expected that only a portion of the total number of haul trucks would access these facilities, this analysis conservatively assumes that 100 percent of haul trucks would use this haul route. Modeling was conducted to estimate daily traffic noise levels with and without the addition of construction vendor and haul truck trips by comparing noise from existing conditions to noise from existing conditions with Project construction trucks to determine if a 3 dB, or "barely perceptible," increase in noise would occur at any roadway segment from construction haul truck activity.

Construction Vibration

The evaluation of potential vibration-related effects from construction of the Project was based on the construction equipment list provided by the Project Sponsor and the estimated construction equipment vibration levels from FTA's *Transit Noise and Vibration Impact Assessment.*[11] Estimated vibration levels at vibration-sensitive land uses were compared to the Caltrans damage and annoyance vibration criteria from Caltrans' *Transportation and Construction Vibration Guidance Manual*[12] to determine if a vibration impact would be expected (see Tables 3.6-2 and 3.6-3).

Operational Traffic Noise

To determine if the Project would result in a substantial permanent increase in traffic noise, direct noise impacts associated with increased traffic volumes from Project build-out were quantitatively evaluated for three time horizons: existing conditions (used to represent baseline conditions), Project opening year, and future year. For Project opening-year and future-year conditions, two sub-scenarios were analyzed: with Project and no Project. For the project-level analysis, Project traffic noise was evaluated with respect to future-year no-Project conditions to isolate the Project's contribution to traffic noise (see Table 3.6-11). Comparing traffic noise under the with-Project scenario to existing conditions does not isolate the contribution of the Project because traffic noise will increase in the absence of the Project due to background growth in Santa Clara and region. Thus, comparing with-Project conditions to existing conditions would not allow readers to determine what the Project-only increase in traffic noise would be.

In the analysis of cumulative impacts, the future-year with-Project scenario is compared to existing conditions to determine if a significant cumulative impact exists (see Table 3.6-14). Then, the future-year with-Project and no-Project scenarios are also compared to determine if the Project's contribution to the existing cumulative impact is cumulatively considerable.

Quantitative modeling of traffic noise was conducted using a spreadsheet tool, which is based on the FHWA Traffic Noise Model (TNM), version 2.5. The spreadsheet calculates the traffic noise level at a fixed distance from the centerline of a roadway according to the traffic volumes, roadway speeds, and types of vehicles that are predicted to occur under each condition. Traffic volumes for each scenario and the truck volume percentages were provided by the Project traffic consultant.

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[11] Federal Transit Administration. 2018. *Transit Noise and Vibration Impact Assessment*. FTA Report 0123. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed: January 11, 2023.

[12] California Department of Transportation. 2020. *Transportation and Construction Vibration Guidance Manual.* April. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf. Accessed: January 11, 2023.

As noted above, a change of 3 dB is barely noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level as it increases or decreases. Consequently, an increase in traffic noise levels of 3 dB or more, which is considered "barely noticeable," along roadway segments would be considered a significant increase.

Other Operational Noise Sources

Other potential sources of Project-related operational noise, including mechanical equipment, emergency generators, outdoor events, truck loading activity, and parking structure activity, were also assessed, based on information provided by the Project Sponsor. Descriptions of the analysis methodology for these topics are included below.

Mechanical Equipment Noise

Mechanical equipment includes rooftop cooling towers, air-source heat pumps, air handling units, and exhaust fans, along with chillers and heat pumps within the equipment rooms in the buildings or basement spaces. According to the Project Sponsor, the locations for the mechanical equipment have not yet been finalized. To evaluate the noise levels from the operation of mechanical equipment, acoustical data (i.e., source noise levels) for each equipment type were derived from various sources, including manufacturers' specification sheets, information provided by the Project Sponsor, and data from expert noise organizations.

Noise from mechanical equipment must be in compliance with Section 9.10.040 of the City Code, which specifies exterior sound or noise limits. At residential properties, noise during daytime hours (7:00 a.m. to 10:00 p.m.) in Santa Clara is limited to 55 dBA; noise during nighttime hours (10:00 p.m. to 7:00a.m.) is generally limited to 50 dBA. At commercial or office properties, noise during daytime hours is limited to 65 dBA; noise during nighttime hours is generally limited to 60 dBA. Therefore, this analysis assesses the potential for mechanical equipment at the Project site to exceed the City's exterior noise limits at sensitive land uses.

Emergency Generator Noise

Twenty-one emergency generators would be installed with Project implementation. Although noise from generators is typically exempt during an emergency, periodic generator testing is not considered to be exempt. During testing, generator noise must meet the allowable noise levels specified in the City Code.

As described in Chapter 2, *Project Description*, the Project Sponsor has indicated that the proposed generators would not be tested simultaneously; therefore, the modeling estimates noise from each individual generator. Estimated noise levels for the proposed emergency generators were derived from manufacturers' specification sheets provided by the Project Sponsor. In addition, the Project Sponsor has indicated that the locations for the proposed emergency generators have not yet been finalized.

Pursuant to Section 9.10.070 of the City Code, noise from the operation of emergency generators during an emergency is not required to comply with local exterior noise limits. However, even though the testing of emergency generators is short term and intermittent, noise resulting from generator testing must comply with City Code Section 9.10.040. Thus, estimated noise levels were compared to the City's exterior noise limits for residential and commercial uses, as shown in Table 3.6-4 and described above.

Event Noise

The proposed Central Green Area, which would be located at the center of the Project site, could support large- or small-scale events, such as performances or movie screenings. The potential for amplified music or speech at these gatherings to exceed applicable noise limits was analyzed, based on information about expected future events provided by the Project Sponsor and noise data from other similar events. The proposed South Park Area would provide open space in the southern portion of the Project site and support smaller-scale, more informal recreational activities. Based on the proposed activities that would occur within the South Park Area, no noise impacts are expected to result.

Noise from amplified music or speech generated by events in the Central Green Area must be in compliance with Section 9.10.040 of the City Code, which specifies exterior sound or noise limits. Thus, estimated noise levels were compared to the City's exterior noise limits for residential and commercial uses, as shown in Table 3.6-4 and described above.

Future onsite residential uses, especially outdoor balconies, could experience noise associated with human speech and music. However, noise generated by residential uses is highly variable and dependent on individual residents' decisions and personal behaviors. It is thus speculative to quantify noise generated by onsite residential uses. Moreover, all future activities on the Project site would be subject to the exterior noise limits established in Section 9.10.040 of the City Code (see Table 3.6-4). Any exceedances of the City's exterior noise limits at nearby land uses resulting from future onsite residential uses would be in violation of the City Code. Because of the limitations on estimating noise impacts resulting from residential uses, and because noise from future onsite residential uses would be subject to the City's exterior noise limits, this analysis does not quantitatively evaluate noise from human speech and music generated by future onsite residents.

Truck Loading Noise

Noise from truck loading activities was evaluated qualitatively, based on operational truck and loading location information provided by the Project Sponsor. Because the Project is not a loading-intensive use, such as a distribution or logistics center, a quantitative analysis of loading noise was not conducted.

Parking Garage Noise

The new parking structures associated with the Project would introduce noises typically associated with parking garages to the Project area. Source noise data from FTA's *Transit Noise and Vibration Impact Assessment Manual*[13] were used to analyze parking garage noise as a stationary source of noise.

Noise generated by new parking structures must be in compliance with Section 9.10.040 of the City Code, which specifies exterior sound or noise limits. Thus, estimated noise levels were compared to the City's exterior noise limits for residential and commercial uses, as shown in Table 3.6-4 and described above.

[13] Federal Transit Administration. 2018. Transit Noise and Vibration Impact Assessment. FTA Report 0123. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed: January 11, 2023.

Impacts and Mitigation Measures

Impact NOI-1: Construction Noise. The Project would generate a substantial temporary increase in ambient noise levels in the vicinity of the Project site due to construction activities; such noise levels would exceed standards established in a local general plan or noise ordinance or applicable standards of other agencies. (Significant and Unavoidable with Mitigation)

Impacts on Offsite Land Uses

The Project would consist of four primary construction phases, but the order of construction is unknown at this time. For this reason, the analysis assumes construction would occur as follows: Phase 1 (i.e., Area C), Phase 2 (i.e., Area D), Phase 3 (i.e., Area B), and Phase 4 (i.e., Area A). Construction is expected to last nearly 10 years. Each construction phase would include multiple subphases (e.g., demolition, excavation and grading, piles, trenching, core and shell, interiors, sitework, unloading materials, utility connections, concrete pour, substation). Refer to Appendix 3.6 for the full list of assumed Project construction phases and subphases.

Standard construction work hours would be 7:00 a.m. to 6:00 p.m. Monday through Friday. Noise from construction activities between the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday and 9:00 a.m. and 6:00 p.m. on Saturdays, excluding holidays, is not subject to the City's exterior noise limits. Construction outside of these hours is not permitted within 300 feet of residentially zoned properties. However, despite the exemption for daytime construction noise, construction activities that are exempt from specified noise limitations in the City Code could still result in a significant physical impact on the environment. Therefore, construction noise generated during daytime hours is compared to the existing ambient noise level to estimate the temporary increase in noise beyond the existing ambient level.

At times, construction activities would also occur between the hours of 6:00 p.m. and 7:00 a.m. Construction activities taking place outside the standard allowable construction hours of 7:00 a.m. to 6:00 p.m. Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturdays, excluding holidays, would be regulated by noise limits from the City General Plan and Section 9.10 of the City Code. Per these requirements, noise at the nearest residential property line is limited to 55 dBA beginning at 6:00 p.m. and ending at 10:00 p.m. and 50 dBA beginning at 10:00 p.m. and ending at 7:00 a.m. the following morning. Noise at the nearest commercial or office property line is limited to 65 dBA beginning at 6:00 p.m. and ending at 10:00 p.m. and 60 dBA beginning at 10:00 p.m. and ending at 7:00 a.m. the following morning. As noted above, an NOP comment requested that construction occur only during daytime hours; however, certain activities, such as concrete pouring, would need to occur outside of daytime hours. The construction contractor(s) would be required to obtain special approval through a permit for work occurring outside of daytime hours.

The construction noise analysis was completed for two periods: typical daytime construction hours of 7:00 a.m. to 6:00 p.m., during which time construction noise is considered exempt from the local noise standards but a significant increase in ambient noise could still occur (i.e. 10 dB), and nighttime hours of 6:00 p.m. to 7:00 a.m. Table 3.6-9 shows the construction noise levels from each activity at increasing distances. Distances and noise levels where sensitive land uses are located are indicated by bold text.

Daytime Hours (7:00 a.m. to 6:00 p.m.)

Based on the equipment list provided by the Project Sponsor, the piles subphase would result in the loudest combined daytime noise levels. The three loudest pieces of equipment proposed for use during the piles subphase would be three impact pile drivers.

Table 3.6-9. Construction Noise Levels by Construction Activity (L_{eq})[a]

Distance between Source and Receiver (feet)[b]	Demolition	Excavation	Piles	Trenching	Core and Shell	Interiors	Sitework	Unloading Materials[c]	Utility Connections[c]	Concrete Pour[c]	Substation[d]
Noise Levels – L_{eq}[e]											
25	92	89	105	91	91	85	92	87	89	85	85
50	86	83	99	85	85	79	85	81	83	79	79
100[f]	80	77	93	79	79	73	79	75	77	73	73
200	74	71	87	73	73	67	73	69	71	67	67
300	70	67	83	69	69	63	70	65	68	64	64
400	68	65	81	67	67	61	67	63	65	61	61
500	66	63	79	65	65	59	65	61	63	59	59
600[g]	64	61	77	63	63	57	64	59	61	58	58
700	63	60	76	62	62	56	63	58	60	56	56
800[h]	62	59	75	61	61	55	61	57	59	55	55
900	61	58	74	60	60	54	60	56	58	54	54
1,000	60	57	73	59	59	53	59	55	57	53	53

a. The three loudest pieces of equipment for each phase are as follows:
- Demolition: Concrete Saw, Tractor/Loader/Backhoe, Rubber-tired Dozer
- Excavation: Crawler Tractor, Excavator
- Piles: Pile Driver (three)
- Trenching: Tractor/Loader/Backhoe (three)
- Core and Shell: Rough-terrain Forklift (three)
- Interiors: Air Compressor (three)
- Sitework: Grader (two), Tractor/Loader/Backhoe
- Unloading Materials: Tractor/Loader/Backhoe, Tower Crane (two)
- Utility Connections: Tractor/Loader/Backhoe, Generator, Plate Compactor
- Concrete Pour: Concrete Mix Trucks, Concrete Pumps, Power Trowels
- Substation: Excavator, Crane, Drill Rig

b. Geometric attenuation based on 6 dB per doubling of distance. This calculation does not include the effects, if any, of local shielding.

c. These activities would occur during the nighttime construction hours.

d. The substation construction activity comprises multiple subphases of construction (such as building shell and sitework); however, the worst-case noise is shown in one column to simplify the table. Presenting the substation noise separately is conservative because it is likely that the substation would be constructed with the rest of the Project and activities would be indistinguishable.

e. L_{eq} noise is presented in dBA units, which approximate the frequency response of the human ear.

f. This distance is applicable to onsite (i.e., future) sensitive land uses only.

g. This distance is applicable to existing residential land uses located near the Project site.

h. This distance is applicable to existing commercial land uses located near the Project site.

Use of the impact pile drivers on the Project site could occur as close as 600 feet from the nearest residences, located west of Calabazas Creek, resulting in estimated noise levels of up to 77 dBA L_{eq} (refer to Table 3.6-9 for the construction noise modeling results). This estimate is a worst-case scenario because it assumes simultaneous operation of the three-loudest pieces of equipment for the loudest phase of construction, which is pile driving. The residences west of Calabazas Creek are closest to measurement locations LT-1, LT-2, and ST-5. The lowest 1-hour daytime L_{eq} noise levels recorded at LT-1 and LT-2 were 52.4 dBA L_{eq} and 53.1 dBA L_{eq}, respectively.[14] The estimated 12-hour average daytime L_{eq} noise levels (between 7:00 a.m. and 7:00 p.m.) recorded at LT-1 and LT-2 were 55.2 dBA L_{eq} and 56.2 dBA L_{eq}, respectively. Similarly, ST-5 had a measured noise level of 56.1 dBA L_{eq} during the 15-minute measurement period. Therefore, existing ambient noise levels in this area are most likely between 52 and 56 dBA L_{eq} during daytime hours. As such, worst-case noise levels of up to 77 dBA L_{eq} at the nearest noise-sensitive land uses would have the potential to exceed the existing ambient noise level by 21 to 25 dB, depending on the precise existing noise level at a given receptor. Aside from the loudest activity, pile driving, noise levels from other construction activities would have the potential to exceed the ambient noise level by as little as 5 dBA during the interiors subphase but up to 12 dBA during the demolition and sitework subphases. Therefore, per FTA guidance, the worst-case noise level of 77 dBA L_{eq} would result in a substantial increase above ambient noise levels at nearby residences because an increase of more than 10 dB over the ambient noise level, which is perceived as a doubling of loudness, may occur. As noted above, an increase of more than 10 dB could also occur for other subphases of construction, such as demolition and sitework.

In addition to the nearby residential land uses, one hotel, the Hilton Santa Clara, is located near the Project site; this use would also be considered a noise-sensitive receptor. Hilton Santa Clara is approximately 800 feet east of the northeast portion of the Project site. At that distance, the use of impact pile drivers during the expected loudest construction subphase could result in estimated noise levels of up to 75 dBA L_{eq}, based on the noise modeling results and noise attenuation from distance (refer to Table 3.6-9). Hilton Santa Clara is closest to measurement locations ST-1 and LT-3. ST-1 had a measured noise level of 61.8 dBA L_{eq} during the 15-minute measurement period; the lowest 1-hour daytime L_{eq} noise level recorded at LT-3 was 54.3 dBA L_{eq}.[15] Therefore, existing ambient noise levels in this area are most likely between 54 and 62 dBA L_{eq}. Estimated combined noise levels of up to 75 dBA L_{eq} at Hilton Santa Clara would have the potential to exceed the existing ambient noise level by 13 to 21 dB, depending on the precise ambient noise level at a given receptor. Therefore, per FTA guidance, the combined noise level of 75 dBA L_{eq} would result in a substantial increase above ambient noise levels at the nearby hotel because an increase of more than 10 dB over the ambient noise level, which is perceived as a doubling of loudness, may occur.

This analysis demonstrates that, during daytime hours, construction activities would temporarily elevate ambient noise levels. As noted above, the pile-driving subphase would result in the loudest noise levels; therefore, those noise levels are used to evaluate the worst-case impacts that would occur. Other construction activities would also result in elevated noise levels. Although construction activities associated with the Project would not conflict with the City Code, because daytime construction noise is exempt, construction may increase noise by more than 10 dB during some activities. In some cases, such as during pile driving, the increase in noise from construction activities would be substantially greater than ambient noise levels at the nearest noise-sensitive land use, as outlined above. The increase in noise from pile driving could be up to 25 dB above ambient levels, which would exceed the noise increase threshold of 10 dBA, which is perceived as a doubling of loudness. Other subphases of

[14] These values are shown in Appendix 3.6.

[15] This value is shown in Appendix 3.6.

construction could result in an increase of 11 to 12 dBA at the residences 600 feet west of the Project site (e.g., demolition, trenching, core and shell, sitework), while some phases may not result in such an increase (e.g., excavation, interiors). The potential increases in noise cited here are worst-case estimates because the increase over ambient levels is based on the lower end of the measured ambient noise range (i.e., 52 dBA L_{eq}). In addition, the distance between the Project site and the residences (600 feet) is a worst-case distance and implies that the three-loudest pieces of equipment would be operating at the site perimeter. Although equipment operation at the perimeter may occur, it is not likely to be a frequent occurrence and may not occur for all subphases of construction. As noted previously, it is not possible to accurately determine precise locations and timeframes for operation of the three-loudest pieces of equipment; therefore, conservatively, the analysis of worst-case impacts uses the distance between the site perimeter and the noise-sensitive land uses. Actual noise levels would be lower when the construction equipment operates at greater distances inward from the perimeter.

Therefore, daytime construction noise could result in a substantial physical effect on the environment, despite being exempt from regulation by City Code. Daytime construction noise impacts would be considered ***significant***.

Nighttime Hours (6:00 p.m. to 7:00 a.m.)

Certain Project construction activities would occur outside of the City's allowed construction hours (i.e., between 6:00 p.m. and 7:00 a.m. the following day) and would therefore need to comply with the City's exterior noise limits. Per Section 9.10.040 of the City Code:

- Noise during the non-exempt hours of 6:00 p.m. to 10:00 p.m. is limited to 55 dBA and 65 dBA at residential and commercial land uses, respectively; and
- Noise during the non-exempt hours of 10:00 p.m. to 7:00 a.m. is limited to 50 dBA and 60 dBA at residential and commercial land uses, respectively.

Unlike daytime construction, nighttime construction is subject to the exterior noise limits from the City Code. As such, construction noise during non-exempt hours is evaluated and compared to applicable limits from the City Code. In addition, similar to the daytime construction noise analysis, the analysis of nighttime hours considers whether construction noise would result in an increase of 10 dB over the ambient levels. The nighttime analysis thus uses two points of consideration in determining the significance of impacts: whether the City Code exterior limits are exceeded and whether the increase would be substantial on its own (i.e., 10 dB).

Regarding onsite construction noise during nighttime hours, the primary activities expected to occur would be material unloading, utility connections, and concrete pours. Based on the equipment list provided by the Project Sponsor, the utility connection subphase would result in the loudest combined nighttime noise levels. The three loudest pieces of equipment proposed for use during nighttime utility connection would be a tractor/loader/backhoe, generator, and plate compactor. Refer to Table 3.6-9 for the construction modeling results. The exact timing and location where equipment would operate cannot be known with certainty at this stage of Project development; as such, it is assumed that activities would occur at the boundary of the Project site. It is likely that, most of the time, most of the work would not occur at the boundary; however, this analysis conservatively estimates what the potential worst-case impacts would be.

As shown in Table 3.6-9, presented previously, material unloading, utility connections, and the concrete pour, all of which would occur during nighttime hours, could result in noise levels of approximately 58 to 61 dBA L_{eq} at the nearest residential land use, approximately 600 feet away. These noise levels could occur

during the non-exempt hours of 6:00 p.m. to 10:00 p.m., which are subject to a 55 dBA exterior noise limit, and 10:00 p.m. to 7:00 a.m., which are subject to a 50 dBA exterior noise limit. Noise levels from the three types of nighttime construction activities (i.e., materials unloading, utility connections, concrete pour) would thus be expected to exceed the allowable exterior noise limits of 55 dBA and 50 dBA at the nearest existing residential receptor. In addition, based on the lowest 1-hour nighttime L_{eq} noise levels recorded at LT-1 and LT-2, noise levels in this area could be as low as 45.6 dBA L_{eq} (recorded at 2:00 a.m.). Estimated combined noise levels of 58 to 61 dBA L_{eq} at the nearest residential receptors would have the potential to exceed the existing ambient noise level by 13 to 15 dB. Therefore, the combined noise levels of 58 to 61 dBA L_{eq} would result in a substantial increase above ambient noise levels at nearby residences because an increase of more than 10 dB over the ambient noise level, which is perceived as a doubling of loudness, may occur. Because construction noise would very likely exceed the City's quantitative exterior noise limits and result in a substantial increase above ambient noise levels, Project site construction noise impacts during the nighttime hours of 6:00 p.m. to 7:00 a.m. would be considered ***significant***.

As noted above, the exact locations of where the three-loudest pieces of equipment would operate cannot be known at this time. As such, the distances cited here are conservatively based on the distance from the site boundary. At Hilton Santa Clara, located approximately 800 feet from proposed nighttime construction activities, the operation of construction equipment during evening hours could result in noise levels of 55 to 59 dBA L_{eq}. These noise levels could occur during the non-exempt hours of 6:00 p.m. to 10:00 p.m., which are subject to a 65 dBA exterior noise limit, and 10:00 p.m. to 7:00 a.m., which are subject to a 60 dBA exterior noise limit. Noise levels from nighttime construction activities at Hilton Santa Clara would thus not be expected to exceed the allowable exterior noise limits of 65 dBA and 60 dBA. In addition, based on the lowest 1-hour nighttime L_{eq} noise levels recorded at LT-3, noise levels in this area could be as low as 51.7 dBA L_{eq} (recorded at 12:00 a.m.). The highest noise level from nighttime construction activities, 59 dBA L_{eq} (utility connections), would have the potential to exceed the existing ambient noise level by 7 dB at Hilton Santa Clara. Therefore, the combined noise level of 59 dBA L_{eq} would not be expected to result in a substantial increase above ambient noise levels at the nearby hotel because an increase of more than 10 dB over the ambient noise level would not occur. Because nighttime construction noise would most likely not exceed the City's quantitative exterior noise limits or result in a substantial increase above ambient noise levels, impacts from construction noise during the nighttime hours of 10:00 p.m. to 7:00 a.m. would not be significant at Hilton Santa Clara.

Impacts on Onsite Land Uses

Because the Project could exacerbate existing noise level during construction, it is necessary to evaluate the Project's construction impacts on future Project occupants. This section describes construction noise impacts on Project users and residents during Project construction because onsite residential land uses could be occupied during the later stages of the construction period. Based on the schedule provided by the Project Sponsor, construction in Area D, which would contain the Project's residential units, would be complete by early 2033. Once construction in Area D is complete, onsite residential uses could be occupied while Area A is still under construction. Therefore, there may be a brief period when there are onsite noise-sensitive receptors in Area D during construction in Area A. It is anticipated that onsite residential buildings could be as close as 100 feet from construction activities in Area A.

Daytime Hours (7:00 a.m. to 6:00 p.m.)

Daytime construction activities that could occur while onsite sensitive uses are occupied include the core and shell, interiors, and sitework subphases of construction in Area A (refer to Appendix 3.6 for a list of the equipment proposed for use during these construction subphases). To estimate noise levels for onsite

receptor exposure, construction noise modeling was conducted using the methodology described previously. Table 3.6-9 identifies the combined noise level, in terms of L_{eq}, from operation of the three loudest pieces of construction equipment at increasing distances between onsite sensitive land uses and daytime construction activities.

The modeling results demonstrate that daytime construction activities have the potential to result in a temporary increase in ambient noise levels at onsite residential land uses in Area D. Specifically, daytime construction activities occurring approximately 100 feet from nearest onsite noise-sensitive receptors (i.e., activities in Area A) could result in noise levels of up to 79 dBA L_{eq}. These estimates assume that construction work would be occurring at the perimeter of the future building locations in Area A or Area B, which is a conservative assumption. Work may, at times, occur at the perimeter, which would be 100 feet from the southern or eastern side of Area D;[16] however, most of the time, work would occur at greater distances (e.g., when work occurs in the interior portions of Area A or Area B) In addition, future residences in the interior portions of Area D or not facing Areas A or B would experience lower noise levels. During daytime hours, construction activities associated with the Project would not conflict with the City Code because of the daytime construction noise exemption, as previously noted. Furthermore, a comparison of the noise level experienced at future onsite sensitive land uses relative to the existing ambient noise would not be appropriate because future occupants are not currently onsite and thus do not experience the existing ambient noise level. Therefore, because construction activities on the Project site would be temporary in nature and would not conflict with the City Code, construction noise impacts on onsite uses during daytime hours would be ***less than significant.***

Nighttime Hours (6:00 p.m. to 7:00 a.m.)

Nighttime construction activities that could occur while onsite sensitive uses are occupied include material unloading, utility connections, and concrete pours for construction in Area A (refer to Appendix 3.6 for a list of the equipment proposed for use during these construction subphases). Table 3.6-9 identifies the combined noise level, in terms of L_{eq}, from operation of the three loudest pieces of construction equipment at increasing distances between onsite sensitive land uses and nighttime construction activities.

The modeling results demonstrate that nighttime construction activities have the potential to result in a temporary increase in ambient noise levels at nearby onsite residential land uses in Area D. Specifically, nighttime construction activities occurring approximately 100 feet away from nearest onsite noise-sensitive receptors (i.e., activities in Area A or Area B) could result in noise levels of 73 to 77 dBA L_{eq}. Therefore, noise levels from all nighttime construction activities would be expected to exceed the allowable exterior noise limits of 55 dBA and 50 dBA at the nearest onsite residential receptors. As noted above, comparing future construction noise at onsite receptors to the existing ambient noise would not be appropriate. Because estimated noise levels would very likely exceed the City's exterior noise limits at onsite residential receptors, construction noise impacts on onsite uses during nighttime hours would be ***significant***.

During nighttime hours, the Project would conflict with the City Code, which prohibits construction within 300 feet of any residentially zoned property, except within allowed hours (i.e., 7:00 a.m. to 6:00 p.m. Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturdays, excluding holidays). To avoid conflicting with the City Code, the Project Sponsor would need to obtain approval of a special permit, pursuant to Section 9.10.100 of the City Code. This special permit would allow for an exception from the City's noise

[16] Area A is approximately 100 feet south of Area D, and Area B is approximately 100 feet east of Area D.

and vibration requirements, provided that the construction activities specified in the permit are necessary and beneficial to the public welfare of the city.

MITIGATION MEASURE. Implementation of Mitigation Measure NOI-1.1 would reduce construction noise at offsite land uses as well as onsite land uses by incorporating practices to minimize noise. Mitigation Measure NOI-1 is informed by Mitigation Measure 4.14-3 in the *Integrated Final EIR for the City of Santa Clara 2010–2035 General Plan*, which states that property owners should develop construction noise control plans that consider available controls to reduce construction noise levels as much as practical. The precise locations of construction equipment cannot be known at this stage of Project development; therefore, it is not currently possible to indicate the specific timing and physical location requirements for implementing this measure. The construction noise analysis uses a worst-case scenario analysis, which is simultaneous operation of the three-loudest pieces of equipment. It would be speculative to attempt to predict the exact time and location where the worst-case scenario would occur and when the mitigation measure would be necessary. Implementation of this mitigation measure requires development of a noise reduction plan to determine the specific details and components needed to reduce noise.

Examples of available controls to reduce noise are summarized below and include those from the City's General Plan EIR. However, the noise controls may not reduce noise enough in all instances to prevent a noise increase of 10 dB or more relative to ambient noise levels or reduce nighttime construction noise to levels that would comply with City Code noise limits. Therefore, construction noise impacts would be ***significant and unavoidable with mitigation*** during daytime and nighttime hours.

NOI-1.1: Construction Noise Reduction Control Plan. The Project Sponsor and/or contractor(s) shall develop a construction noise control plan to reduce noise levels as much as possible and, to the extent feasible, comply with City Code noise limits, ensuring that a 10 dB increase over the ambient noise level will not occur at offsite and onsite noise-sensitive land uses, as defined by Policy 5.10.6-P6 from the General Plan.

For nighttime construction activities, the plan shall demonstrate that noise from construction activities will comply with the applicable City Code noise limits at the nearest offsite and onsite land uses and that a 10 dB increase over ambient noise levels will not occur at offsite or onsite noise-sensitive land uses. For daytime construction activities, which are exempt from the City Code limits, the plan shall demonstrate that a 10 dB increase over ambient noise levels will not occur. If the plan does not demonstrate these findings, it shall explain why compliance with such noise limits is not feasible and adopt all feasible measures to reduce noise impacts to the extent possible.

The construction noise control plan shall be approved by the City prior to the issuance of building permits for the portion of the Project at issue in the noise control plan to confirm the actual minimization strategies that will be implemented. Project construction shall comply with all identified measures in the noise control plan. In addition, because Project construction would not be limited to the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday or 9:00 a.m. to 6:00 p.m. on Saturdays, excluding holidays, the Project Sponsor shall obtain an exemption permit for all activities occurring outside of the exempt hours, per the City Code.

At a minimum, the following measures to reduce noise from construction activity shall be incorporated into the Construction Noise Control Plan:

- Use "quiet" models of air compressors and other stationary noise sources where technology exists;
- Equip all internal-combustion engines with mufflers that are in good condition and appropriate for the equipment;
- Locate all stationary noise-generating equipment, such as air compressors and portable power generators, as far away as possible from adjacent noise-sensitive land uses;
- Locate staging areas and construction material areas as far away as possible from adjacent noise-sensitive land uses;
- Prohibit all unnecessary idling of internal-combustion engines;
- Notify all adjacent land uses of the construction schedule in writing;
- Designate a "disturbance coordinator," a person who will be responsible for responding to local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler) and require reasonable measures to correct the problem to be implemented;
- Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule; and
- Install noise-reducing soundwalls or fencing with sound blankets around noise-generating equipment, to the extent feasible.

During permit approval, the City may impose additional or alternative noise reduction control measures to further reduce noise levels as much as possible and, to the extent feasible, comply with City Code noise limits. Any such additional or alternative noise reduction measures required by the City shall also be incorporated into the Construction Noise Control Plan.

Construction Haul and Vendor Truck Noise

Project construction would involve the use of haul trucks to move excavated material and vendor trucks to deliver materials to the Project site. Based on the data provided by the Project Sponsor, up to 686 one-way vendor and haul truck trips could occur on a worst-case day (during construction Phase 2, 3, and 4 core-and-shell construction activities). During most of the construction period, there would be substantially fewer truck trips; however, this worst-case scenario for construction trucks has been conservatively analyzed.

The two main routes that lead to the quarry and recycling facilities have been identified by the Project Sponsor, as described above. The main routes involve trucks traveling east on Old Glory Lane, then north on Great America Parkway to SR 237. This analysis does not evaluate haul truck noise on highways because traffic noise from highways, such as SR 237, is generally already high. The additional Project haul trucks, even during worst-case days, would not be likely to influence the existing noise level on highways. The construction truck noise analysis therefore focuses on potential noise impacts on surface streets.

The temporary addition of up to 686 haul trucks trips per day on roadway segments was analyzed to determine if construction truck activity would result in substantial increases in ambient noise levels at

noise-sensitive land uses. The City does not have noise thresholds pertaining to construction haul truck noise. Therefore, an increase in traffic noise of 3 dB or more, which is considered "barely noticeable," at affected roadway segments would be considered a significant increase in construction truck noise.

Modeling was conducted to estimate daily traffic noise levels with and without the construction haul trucks. Table 3.6-10 shows estimated traffic noise levels along the roadway segments under existing conditions as well as existing conditions with Project construction trucks.

Table 3.6-10. Baseline and Baseline plus Project Haul Truck Noise Levels

Roadway Segment	Baseline Traffic Noise Levels (dBA L_{dn})	Baseline plus Construction Truck Noise Levels (dBA L_{dn})	Delta dB
Great America Parkway between Tasman Drive and Bunker Hill Lane	72.0	72.6	0.6
Great America Parkway between Old Mountain View-Alviso Road and SR 237	72.7	73.5	0.7

As shown in Table 3.6-10, construction haul trucks and vendor trucks would not result in an increase in traffic noise greater than 3 dB at any of the analyzed segments. The greatest increase in noise is expected to be 0.7 dB, which would not be perceptible to the human ear. Therefore, noise impacts related to construction haul truck activity would be ***less than significant.***

Impact NOI-2: Operational Noise. With implementation of mitigation, the Project would not generate a substantial permanent increase in ambient noise levels in the vicinity of the Project due to operation of the Project; such noise levels would not exceed standards established in a local general plan or noise ordinance or applicable standards of other agencies. (Less than Significant with Mitigation)

Operational Traffic Noise

The Project would result in increased traffic volumes on existing roadways in the Project area because new residences and places of employment would be added on the Project site. Future residents, employees, and visitors would travel to and from the site on existing roadways, thereby increasing traffic noise levels in the area. Average daily traffic volumes provided by the traffic consultant were used to quantify traffic noise levels associated with three time horizons: existing conditions, Project opening year, and future year. For the Project opening-year and future-year conditions, two sub-scenarios were analyzed: with Project and no Project. The difference in noise between the no-Project and with-Project scenarios represents the Project's incremental contribution to noise levels in the area. This section focuses on the Project opening-year condition, which is representative of impacts that would occur in 2034. The future-year condition is evaluated below under *Cumulative Impacts*. Table 3.6-11 shows the results of the noise modeling analysis for existing roadway segments in the Project's opening year (2034).

As shown in Table 3.6-11, Project-generated traffic would result in small increases in noise levels on the majority of existing roadway segments, while noise levels on some roadway segments would decrease slightly. The maximum increase between no-Project and with-Project conditions for the Project opening year is 2.9 dB, which would occur on Tasman Drive between Great America Parkway and Old Ironsides Drive. As noted above, a change of 3 dB is just noticeable; therefore, a change of 2.9 dB would not be

noticeable. Consequently, the Project would not result in a noticeable increase in traffic noise compared to no-Project conditions. Therefore, this impact would be ***less than significant***.

Table 3.6-11. Existing Roadways – Traffic Noise Impacts (Project Opening Year)

Roadway Segment	No Project (L_{dn})	With Project (L_{dn})	Increase (dB)	Significant Impact? [a]
Tasman between Reamwood and Patrick Henry	68.8	70.8	2.0	No
Tasman between Birchwood and Lawrence Expressway	69.4	71.2	1.8	No
Lawrence Expressway between US 101 and Tasman	74.7	74.7	-0.1	No
Lawrence Expressway between Tasman and Elko	74.7	75.5	0.8	No
Tasman between Lawrence Expressway and Fair Oaks	66.4	67.0	0.6	No
Tasman between Great America and Old Ironside	66.8	69.7	2.9	No
Great America between Old Glory and Patrick Henry	74.0	74.9	0.9	No
Great America between Old Glory and Mission College	75.0	75.7	0.7	No
Great America between Tasman and Bunker Hill	73.6	74.2	0.6	No
Tasman between Great America and Lafayette	70.0	70.2	0.2	No
Lafayette between Tasman and Agnew	69.2	69.4	0.2	No
Lafayette between Tasman and SR 237	70.7	70.8	0.2	No
Great America between US 101 and Mission College	75.5	75.9	0.4	No
Lawrence Expressway between Oakmead and Arques	76.9	77.1	0.1	No
Bowers between Scott and Central Expressway	71.5	71.7	0.2	No
Tasman between Lickmill and Renaissance Drive	71.1	70.8	-0.3	No
Great America between Old Mountain View-Alviso Road and SR 237	73.9	74.2	0.3	No
Mission College between Freedom (west) and Freedom (east)	66.5	67.4	0.9	No
Bowers between US 101 and Scott	74.5	74.5	0.1	No
Agnew between Lafayette and Mission College	60.5	60.6	0.0	No
Lawrence Expressway between Central Expressway and Arques	75.8	75.9	0.1	No
Mission College between Burton and Wyatt	68.5	68.7	0.3	No
Montague Expressway between Lafayette and Thomas	75.5	75.6	0.1	No
Montague Expressway between US 101 and Thomas	76.4	76.5	0.1	No
Montague Expressway between De La Cruz and Lafayette	75.6	75.7	0.1	No

[a] A change of 3 dB or less in traffic noise levels would not constitute a significant impact because such a change is considered just noticeable.

Mechanical Equipment Noise

The Project would include the operation of HVAC equipment as well as a substation. Specifically, proposed equipment would include cooling towers, air-source heat pumps, air handling units, exhaust fans, chillers, and heat pumps, along with the substation. Cooling towers, air-source heat pumps, air handling units, and exhaust fans would be located at the roof level, while the chillers and heat pumps would be located within equipment rooms, either in the buildings or in the basement spaces. Although a penthouse or screening panels would help reduce noise from the operation of these systems, specific details about these features are not known at this time. Therefore, no noise reduction from screens or other features is considered in this analysis. The substation would be located on the east side of the Project site, in Area C, and most likely

an indoor station. All equipment would be designed, selected, and operated such that all property-line noise ordinance requirements would be met.

Noise from mechanical equipment must be in compliance with Section 9.10.040 of the City Code, which specifies exterior noise limits. Refer to Table 3.6-4 for the noise limits indicated for residential and commercial properties, including the nearby hotel. This analysis assesses the potential for mechanical equipment noise to exceed the City's exterior noise limits at sensitive land uses. According to the Project Sponsor, the exact locations of the proposed mechanical equipment have not yet been finalized.

Typical cooling towers and exhaust fans, such as those proposed for the Project, can produce sound levels of approximately 70 dBA and 38 dBA at 50 feet, respectively.[17] A medium-voltage substation could produce an approximate noise level of approximately 52 to 57 dBA L_{eq} at 50 feet.[18]

Substation equipment would most likely be located indoors and therefore result in lower noise levels than the range cited above because noise attenuation would be achieved by the building shell. Conservatively, however, no attenuation from a substation building is incorporated in this analysis. The proposed heat pump/chiller and air handling unit would produce noise levels of approximately 61 dBA and 79 dBA at 50 feet, respectively.[19, 20] Finally, the proposed cooling-only chiller would produce noise levels of up to 82 dBA at 50 feet, based on the specification sheet provided by the Project Sponsor.[21]

If all of the equipment listed above were to operate simultaneously, which is unlikely to occur frequently or at all, the combined noise level would be 84 dBA, assuming the upper end of the noise levels listed above. This estimate of 84 dBA is an approximation; the actual noise level could be higher or lower, depending on the actual equipment models used, the type of screening and/or shielding present, intervening structures or barriers, and the number of individual pieces of equipment (e.g., multiple pumps).

Although there are many unknown variables, it is conservatively assumed that equipment noise levels could exceed the City's allowable levels at the nearest land uses (i.e., the future onsite residences and commercial uses located within 50 feet) because an estimated level of 84 dBA would exceed the City Code limits during daytime and nighttime hours (i.e., Section 9.10.040 of the City Code, Table 3.6-4). In addition, offsite land uses may also be affected by mechanical equipment noise but to a lesser extent. Offsite commercial uses are approximately 200 feet from the Project site, the nearest hotel is approximately 800 feet east of the Project site, and the nearest offsite residences are approximately 600 feet from the Project site. At these distances, noise from the mechanical equipment would attenuate geometrically or because of intervening buildings and other objects. However, mechanical equipment noise would affect predominantly onsite uses and exceed the noise limits from the City Code. For these reasons, noise from rooftop HVAC equipment and other equipment would be ***significant***.

MITIGATION MEASURE. Modeling indicates that noise from Project mechanical equipment could result in noise levels in excess of applicable thresholds. As such, Mitigation Measure NOI-2.1 would ensure that noise from Project mechanical equipment would comply with the exterior noise limits outlined in

[17] Hoover and Keith. 2000. *Noise Control for Buildings, Manufacturing Plants, Equipment, and Products*. Houston, TX.

[18] ICF. 2010. *PG&E Windsor Substation Project Proponent's Environmental Assessment – Section 12.0, Noise*. Available: https://ia.cpuc.ca.gov/Environment/info/aspen/windsorsub/pea/12_noise.pdf.

[19] ClimaCool. 2015. *Chiller Bank Performance Dat*a.

[20] Carrier. 2019. *Genzon Technical Specification*.

[21] This analysis conservatively assumes that the equipment would generate a noise level of 82 dBA at 50 feet because no corresponding distance value was provided for the 82 dBA noise level. Carrier. 2018. *AquaEdge Chiller Estimated Acoustic Data*.

Section 9.10.040 of the City Code and presented in Table 3.6-4. Therefore, impacts from Project mechanical equipment noise would be ***less than significant with mitigation***.

NOI-.2.1: Stationary Sources Noise Reduction Plan. To reduce potential noise impacts resulting from Project mechanical equipment and other stationary sources, including HVAC equipment and emergency generators, the Project Sponsor shall conduct a noise analysis to estimate noise levels of Project-specific mechanical equipment, based on the final equipment models and design features selected. This analysis shall be included in a Noise Reduction Plan to ensure that the noise levels of the equipment, once installed, are below the criteria specified in City Code Section 9.10.040 and presented in Table 3.6-4. The Noise Reduction Plan shall include any necessary noise reduction measures required to reduce Project-specific mechanical equipment noise to less-than-significant levels. The plan shall demonstrate that, with the inclusion of selected measures, noise from equipment will be below the City Code noise limits. Potential noise reduction measures to reduce noise to levels below the City Code Section 9.10.040 noise limits include, but are not limited to:

- Selecting quieter equipment, where feasible,
- Utilizing silencers and acoustical equipment at vent openings,
- Installing exhaust mufflers or silences,
- Siting equipment farther from the roofline and increasing the distance between the source and noise-sensitive receptor,
- Enclosing all equipment in a mechanical equipment room designed to reduce noise and / or placing barriers around the equipment to facilitate the attenuation of noise, and
- Orienting or shielding equipment to protect noise-sensitive receptors to the greatest extent feasible.

To result in meaningful attenuation from shielding, all walls, enclosures, or screens surrounding generators must be solid, with no holes or gaps. Attenuation also varies, based on the type of material used for the walls or screens. In addition, the Project Sponsor shall incorporate all feasible methods to reduce the noise levels identified above, as well as other feasible recommendations from the Noise Reduction Plan, into both the building design and operations as necessary to ensure that noise sources do not exceed the City Code noise limits at receiving properties.

The Noise Reduction Plan shall be provided to the City prior to the issuance of building permits for each building and prepared by persons qualified in acoustical analysis and/or engineering. The plan shall demonstrate, with reasonable certainty, that noise from mechanical equipment selected for the Project, with attenuation features incorporated into the Project design, will not exceed the City Code noise limits, presented in Table 3.6-4, at noise-sensitive land uses located either within or external to the Project site.

Emergency Generator Noise

Twenty-one 400-kilowatt (kW) generators would be required for the Project. The units would create noise during monthly testing and during power outages when backup power is required. Pursuant to Section 9.10.070 of the City Code, noise from the operation of emergency generators during an emergency is not required to comply with local exterior noise limits. However, even though the testing of emergency generators is short term and intermittent, noise resulting from generator testing must comply with City

Code Section 9.10.040. Table 3.6-4, above, indicates the noise limits for residential and commercial uses, including the nearby hotel. Generator testing and maintenance is anticipated to occur for a duration of 2 to 4 hours per month, or up to 50 hours per year, for each generator.

According to the Project Sponsor, the exact locations of the proposed emergency generators have not yet been finalized, and the testing of the proposed generators is not anticipated to occur simultaneously. As such, this analysis evaluates noise levels generated by the testing of one generator at a time. Noise levels from the proposed 400 kW generators (Cat® D400 GC diesel generator sets) are used in this analysis.[22] According to the Project Sponsor, the generators would be located within sound-attenuating enclosures (D400 GC). A 400 kW emergency generator within a sound-attenuating enclosure can generate a sound pressure level of 71 dBA at 23 feet, or 64 dBA at 50 feet. The locations of the generators would most likely be dispersed throughout the Project site; thus, it is possible that the generators would be close enough to onsite land uses to exceed City Code limits in some cases. For instance, noise from the testing of generators could exceed the City Code criteria of 55 dBA and 50 dBA at residential receptors during daytime and nighttime hours, respectively, if generators are located within 50 feet of onsite residential uses. The 60 dBA limit at commercial or office uses during nighttime hours is unlikely to be exceeded because the generators would be tested during daytime hours. Offsite land uses are unlikely to be affected by generator noise because offsite commercial uses are approximately 200 feet from the Project site, the nearest hotel is approximately 800 feet from the Project site, and the nearest offsite residences are approximately 600 feet west of the Project site. At these distances, noise from the generators would attenuate geometrically or because of intervening buildings and other objects. However, generator noise would affect onsite uses and exceed the noise limits from the City Code. As a result, noise impacts from the testing of the proposed generators would be considered ***significant***.

MITIGATION MEASURE. Mitigation Measure NOI-2.1, discussed above, requires preparation of a Noise Reduction Plan that includes effective attenuation features. This mitigation measure applies to the impact from mechanical equipment, discussed above, and the impact from emergency generators. Mitigation Measure NOI-2.1 would ensure that noise from emergency generators would comply with the exterior noise limits outlined in Section 9.10.040 of the City Code. Exhaust noise from generators is not always mitigated by enclosures because exhaust may need to be piped to the exterior of the building or enclosure. To reduce exhaust noise, mufflers or critical-grade silencers might be needed. Mitigation Measure NOI-2.1 would ensure that noise from emergency generators during testing would comply with the noise limits outlined in Section 9.10.040 of the City Code. Therefore, noise impacts from Project emergency generator testing would be ***less than significant with mitigation***.

Amplified Music and Sound from Events

Although the Project's operational program has not yet been explicitly defined, the proposed Central Green Area, which would be located at the center of the Project site, could support large- or small-scale events, such as performances or movie screenings. Outdoor events could involve amplified music or speech. The proposed South Park Area would provide open space in the southern portion of the Project site and support smaller-scale, more informal recreational activities. As a result, activities supported by the proposed South Park Area are expected to be less noise intensive than those supported by the proposed Central Green Area.

The specific activities that would occur outdoors in the Central Green Area are currently unknown but will be developed in subsequent design phases with community input. However, this analysis provides a

[22] Cat®. 2022. *Cat® D400 GC Diesel Generator Sets*. June.

worst-case evaluation of potential noise-generating activities. The nearest noise-sensitive land uses are the residential land uses along Calabazas Creek, approximately 1,250 feet west of the proposed Central Green Area. Although commercial land uses are closer to the Central Green Area, these land uses are not considered noise-sensitive land uses and would not be likely to experience substantially increased noise levels as a result of the Project.

Noise from amplified music and sound from events would be subject to the exterior noise limits established in Section 9.10.040 of the City Code. Refer to Table 3.6-4 for the noise limits indicated for residential and commercial properties. This analysis assesses the potential for amplified music and sound from events to exceed the City's exterior noise limits at the offsite residential land uses along Calabazas Creek, approximately 1,250 feet west of the Central Green Area.

Future onsite residential uses, especially outdoor balconies, could experience noise associated with human speech and music. However, noise generated by residential uses is highly variable and dependent on individual residents' decisions and personal behaviors. It is thus speculative to quantify noise generated by onsite residential uses. Moreover, all future activities on the Project site would be subject to the exterior noise limits established in Section 9.10.040 of the City Code (see Table 3.6-4). Any exceedances of the City's exterior noise limits at nearby land uses resulting from future onsite residential uses would be in violation of the City Code. Because of the limitations on estimating noise impacts resulting from residential uses, and because noise from future onsite residential uses would be subject to the City's exterior noise limits, this analysis does not quantitatively evaluate noise from human speech and music generated by future onsite residents.

Human speech amplified by a single loud speaker has been measured to be in the range of approximately 56 to 58 dBA L_{eq} at 100 feet,[23] whereas noise from a small live band with a guitar and vocalists, along with a single amplifier, has been measured to be approximately 65 dBA L_{eq} at 100 feet.[24] Based on the estimated noise levels, noise from these events at a distance of 1,250 feet, the distance to the nearest residences, would be approximately 36 dBA for amplified human speech and 43 dBA for amplified noise from a small band. Therefore, noise from amplified human speech or a small band would not be expected to exceed the City's exterior noise limits and would be considered normally acceptable.

The exact locations of future events in the Central Green Area are currently unknown; thus, it is possible that future events would be close enough to onsite land uses to exceed City Code limits in some cases. Based on the estimated noise levels, noise from these events at a distance of 50 feet, a conservative assumption of the potential distance to the nearest future onsite residences, would be approximately 64 dBA for amplified human speech and 71 dBA for amplified noise from a small band. Thus, noise from future events could exceed the City's criteria of 55 dBA and 50 dBA at residential receptors during daytime and nighttime hours, respectively, if those events are within 50 feet of onsite residential uses. However, any special event or activity involving the outdoor amplification of music would be required to file a request for a permit. Outdoor events conducted pursuant to a valid permit or license issued by the City are not subject to the noise, sound, and vibration provisions of the City Code. Moreover, these values are conservative because noise would be further reduced by walls, topography, or other intervening barriers. The proposed Central Green Area would be surrounded by structures that would most likely result in noise attenuation not accounted for in the values shown above.

[23] Wedding Noise: Noise measured at approximately 140 feet from an individual officiating over a wedding (single speaker) was measured to be between approximately 55 and 56 dBA L_{eq}, equating to a noise level of 58 to 59 dBA L_{eq} at 100 feet.

[24] Acoustic Band Noise: Noise measured at approximately 73 feet from a small live band with a single amplifier that included a guitar and vocals was measured to be 67.5 dBA L_{eq}, equating to 64.8 dBA L_{eq} at 100 feet.

Because any large events with amplified music or speech would comply with the requirements of the applicable permit, noise from such events would comply with local regulations. Impacts from events at the Central Green Area would be ***less than significant***.

Truck Loading Noise

Loading spaces are proposed throughout the Project site. These would be dispersed across Areas A, B, C, and D and include van loading spaces, box-truck loading spaces, and tractor-trailer loading spaces. It is currently understood that development in Areas A, B, C, and D would respectively generate an average of approximately 299, 252, 182, and 131 deliveries per day involving trucks of various sizes (i.e., mostly small delivery vans but some full-size delivery trucks). Delivery and servicing activities are expected to occur throughout the day. The deliveries would be spread out between the area loading zones described above.

Most Project loading areas would be internal to the Project site and would not involve active loading and unloading activities close to offsite receptors. In addition, intervening structures would be situated between most of the loading areas and the nearest noise-sensitive uses, including onsite residential uses. The temporary loading and unloading activities at the Project office buildings would be generally short term and intermittent. The maximum number of deliveries to any of the Project areas would be 299 per day, with many of those deliveries occurring with vans rather than heavy-duty trucks. Because loading activities would be dispersed among the many loading zones and occur throughout the day, temporary and short-term increases in noise from Project loading activity would not be considered substantial. Impacts from truck loading at the Project site would be ***less than significant.***

Parking Garage Noise

The Project would provide up to 9,400 parking spaces for the proposed onsite uses in underground parking structures, extending only under the footprint of the podium buildings on the site, and in above-grade podium parking. Parking structures in Areas A, B, C, and D would provide approximately 35, 26, 19, and 20 percent of the total parking spaces, respectively. Underground parking would not be expected to result in noise that could affect offsite or onsite receptors because all noise would be generated in an enclosed space. Above-ground parking garages could result in noise that would affect receptors, however. Parking garage noise sources include moving vehicles, car doors closing, cars starting, tires squealing, and other automotive noises.

According to the FTA's *Transit Noise and Vibration Impact Assessment Manual*,[25] 1,000 cars in a peak activity hour would generate a Sound Equivalent Level (SEL) of 92 dBA at 50 feet, which, in terms of hourly L_{eq} (average) noise levels, is equal to 56.5 dBA L_{eq} at a distance of 50 feet. This value can be used to calculate the L_{eq} noise level of the estimated number of vehicles per peak daytime hour utilizing a garage in Area A, B, C, or D. This analysis conservatively assumes that all of the parking spaces would be located within the Project buildings closest to the offsite noise-sensitive receptors for each Project area, with Areas A, B, C, and D providing approximately 35, 26, 19, and 20 percent of the total parking spaces, respectively, and that the same number of vehicles could enter or exit the garage during a peak hour. The nearest offsite noise-sensitive uses are the residences along Calabazas Creek, approximately 700, 1,525, 600, and 1,350 feet west of the nearest structures that would be developed in Areas A, B, C, and D, respectively. Although commercial land uses are closer to the parking garages, these land uses are not

[25] Federal Transit Administration. 2018. *Transit Noise and Vibration Impact Assessment.* FTA Report 0123. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed: January 11, 2023.

considered noise-sensitive land uses. At the nearest offsite noise-sensitive receptors, the noise level from vehicles operating within a parking garage at Area A, B, C, or D could be up to 39, 29, 38, or 31 dBA, respectively. Therefore, noise from parking structure activity would not be expected to exceed the City's criteria of 55 dBA and 50 dBA at residential receptors during daytime and nighttime hours, respectively, or 60 dBA at commercial or office uses during nighttime hours.

Parking garage noise sources could be located as close as 140 feet from future onsite residences, the distance from the parking garage entrance within Area A to the nearest proposed residential structure within Area D. This represents a conservative assumption of the potential distance from the Area A parking garage to the nearest future onsite residences because only a small portion of noise-generating activity would occur at the entrance to the parking garage; the majority of noise-generating activity would occur more than 140 feet from the nearest proposed residential structure. Based on the estimated noise levels, noise from the parking garage in Area A at a distance of 140 feet would be approximately 52.8 dBA. Thus, noise from the parking garage would not exceed the City's criterion of 55 dBA at future onsite residences during the daytime. Note that the above estimates are based on peak-activity-hour data, resulting in worst-case noise estimates. Moreover, the proposed parking garages would generate less activity and noise during nighttime hours than daytime or peak hours, and all noise would be generated in an enclosed space. As a result, noise from the nearby parking garage would not be expected to exceed the City's criterion of 50 dBA at future onsite residences during nighttime hours. Therefore, the estimated noise levels generated by parking structure activities would be ***less than significant***.

Impact NOI-3: Ground-borne Vibration and Noise Levels. The Project would generate excessive ground-borne vibration or ground-borne noise levels. (Significant and Unavoidable with Mitigation)

Construction

Construction of the Project would involve the use of construction equipment that could generate ground-borne vibration. Typical vibration levels associated with heavy-duty construction equipment at a reference distance of 25 feet, as well as other distances proposed for daytime and nighttime construction activities, are shown in Tables 3.6-12 and 3.6-13, based on the FTA's *Transit Noise and Vibration Impact Assessment Manual.*[26] The most vibration-intensive construction equipment that may be used during daytime and nighttime construction activities would be an impact pile driver and a vibratory roller. Project-specific analyses were conducted to approximate vibration levels at offsite and onsite sensitive uses during Project construction. As noted above, an NOP comment requested that pile drivers not be used because of the noise and vibration impacts that such equipment can generate. It is not known whether the construction contractor(s) will be able to use alternative methods of pile driving that are quieter and less vibration intensive. Alternative methods may be feasible in some cases, but traditional pile driving may nevertheless be necessary. Consequently, this analysis conservatively assumes that driven piles would be used during construction.

The evaluation of potential vibration-related effects from construction of the Project was based on the construction equipment list provided by the Project Sponsor and the estimated vibration levels contained in the FTA's *Transit Noise and Vibration Impact Assessment.*[27] Estimated vibration levels at sensitive uses from construction of the Project were then compared to the Caltrans damage and annoyance vibration

[26] Ibid.
[27] Ibid.

criteria (see Tables 3.6-2 and 3.6-3, presented previously) to determine if a vibration impact would be expected.

Construction in Areas A, B, C, and D would involve the same construction subphases and equipment; therefore, this analysis assumes that vibration levels generated by each phase of construction would be equal.

Table 3.6-12. Vibration Source Levels for Daytime Construction Equipment

Equipment	PPV at 25 Feet	PPV at 50 Feet	PPV at 100 Feet	PPV at 600 Feet	PPV at 700 Feet	PPV at 800 Feet
Pile Driver (impact)	1.518	0.534	0.190	0.0129	0.0102	0.0084
Large bulldozer[a]	0.089	0.0315	0.011	< 0.001	< 0.001	< 0.001
Loaded trucks[b]	0.076	0.0269	0.010	< 0.001	< 0.001	< 0.001
Vibratory Roller	0.210	0.074	0.026	0.002	0.001	0.001
Small bulldozer[c]	0.003	0.0011	0.004	< 0.001	< 0.001	< 0.001

Source: Federal Transit Administration. 2018. *Transit Noise and Vibration Impact Assessment*. FTA Report No. 0123. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed: January 11, 2023.

a. Representative of excavators.

b. Representative of semi-trucks and dump trucks.

c. Representative of tractors/loaders/backhoes.

Table 3.6-13. Vibration Source Levels for Nighttime Construction Equipment

Equipment	PPV at 25 Feet	PPV at 50 Feet	PPV at 100 Feet	PPV at 600 Feet	PPV at 700 Feet	PPV at 800 Feet
Loaded trucks[a]	0.076	0.0269	0.010	< 0.001	< 0.001	< 0.000
Vibratory Roller	0.210	0.074	0.026	0.002	0.001	0.001
Small bulldozer[b]	0.003	0.0011	0.004	< 0.001	< 0.001	< 0.001

Source: Federal Transit Administration. 2018. *Transit Noise and Vibration Impact Assessment*. FTA Report No. 0123. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed: January 11, 2023.

a. Representative of semi-trucks and dump trucks.

b. Representative of tractors/loaders/backhoes.

Damage to Structures

During Project construction, vibration-generating construction equipment may be operated approximately 100 feet from commercial and industrial buildings and approximately 600 feet from the nearest residences. The commercial structures in this area would be classified as "modern industrial/commercial buildings," which have a vibration damage threshold of 0.5 in/sec. Regarding the nearest residences, residential land uses in the area are best categorized as "new residential structures" or "older residential structures" from the damage thresholds, which have an applicable damage criterion of 0.5 and 0.3 in/sec, respectively (refer to Table 3.6-2, presented previously). Conservatively, it is assumed that all residential structures are in the "older residential structure" category.

As shown in Table 3.6-12, vibration from construction could have a PPV of up to 0.190 in/sec should an impact pile driver be used, which is the most vibration-intensive equipment, within 100 feet of offsite commercial land uses. This vibration level is well below the applicable damage criterion that would apply

to these structures (i.e., PPV of 0.5 in/sec). At the nearest residence, located approximately 600 feet away, vibration from Project construction could have a PPV of up to 0.0129 in/sec. This vibration level is also well below the applicable damage criterion (i.e., PPV of 0.3 in/sec) that would apply to older residential land uses. Consequently, vibration-related damage impacts on residences and commercial/industrial buildings from construction activities would be ***less than significant***.

Vibration-Related Annoyance

Humans are typically more sensitive to vibration that occurs during nighttime hours when people generally sleep. However, schools and places of work may also be considered sensitive to daytime vibration because it may affect a person's ability to complete work or focus on certain tasks. In addition, according to the FTA, "ground-borne vibration is almost never a problem outdoors. Although the motion of the ground may be perceived, without the effects associated with the shaking of a building, the motion does not provoke the same adverse human reaction." For this analysis, a significant vibration impact would be considered to occur if construction activities generate vibration levels that are strongly perceptible (i.e., PPV of 0.1 in/sec) at nearby residences or commercial structures during daytime or nighttime hours.

Most construction activities would occur at distances greater than the worst-case distances because the worst-case scenario represents construction activities occurring along the perimeter of the Project site. Construction at the perimeter would be short term compared to the overall duration of construction; thus, this analysis represents a conservative approach.

Daytime Construction

Impacts on Offsite Land Uses

During daytime construction activities, vibration-generating construction equipment may be operated approximately 100 feet from the nearby commercial and industrial buildings and approximately 600 feet from the nearest residences. As shown in Table 3.6-12, vibration from daytime construction activities, which could include the use of an impact pile driver, could have a PPV of up to 0.0129 in/sec at the nearest residence (600 feet from the Project site). This level of vibration would be barely perceptible, based on the thresholds identified in Table 3.6-3. Therefore, annoyance-related vibration impacts from daytime construction activities at offsite residences would be ***less than significant***.

Although commercial and office uses are not always considered sensitive to vibration, vibration-related annoyance impacts on the nearby commercial buildings (approximately 100 feet from the Project site) are also evaluated. At a distance of 100 feet, an impact pile driver could produce a PPV of up to 0.190 in/sec. This level is above the strongly perceptible level, based on the threshold of 0.1 in/sec identified in Table 3.6-3. Therefore, annoyance-related vibration impacts from daytime construction activities on the nearby commercial buildings would be considered ***significant***.

Impacts on Onsite Land Uses

During daytime construction activities, vibration-generating equipment may be operated approximately 100 feet from onsite residential buildings developed as part of the Project. As shown in Table 3.6-12, vibration from daytime construction activities, which could include the use of an impact pile driver, could have a PPV of up to 0.190 in/sec at the nearest future onsite residences (100 feet from pile driving). This level is above the strongly perceptible level, based on Table 3.6-3 (0.1 in/sec). Therefore, annoyance-related vibration impacts from daytime construction activities on future onsite residences would ***significant***.

MITIGATION MEASURE. Implementation of Mitigation Measure NOI-3.1 would reduce vibration-related annoyance effects at sensitive uses by requiring implementation of vibration attenuation measures under the supervision of a qualified acoustical consultant. However, because pile drivers are considered more vibration intensive than typical equipment, it cannot be determined if vibration levels would be reduced to below the strongly perceptible threshold in all circumstances. Therefore, annoyance-related vibration impacts could be considered excessive, even with mitigation during daytime hours. Vibration-related annoyance impacts would be ***significant and unavoidable with mitigation.***

NOI-3.1: Pile Driving Vibration Reduction Plan. The Project Sponsor and/or contractor(s) shall develop a construction Vibration Reduction Plan to reduce vibration levels to the extent feasible. This plan shall be approved by the City prior to the issuance of building permits to confirm the actual minimization strategies that will be implemented. To reduce vibration levels from pile driving, alternative pile installation methods, such as those indicated below, shall be implemented under the supervision of a qualified acoustical consultant during the Project construction period. The goal of the measures shall be to achieve a PPV that is less than 0.10 in/sec., which is considered the strongly perceptible threshold.

The Project Sponsor shall require the construction contractor to limit pile-driving activity so that the PPV at offsite uses is less than 0.10 in/sec, to the extent feasible. Alternative pile installation methods that do not require impact or vibratory pile driving, such as auger cast pressure-grouted displacement piles, cast-in-drilled-hole piles, or sonic pile drivers, shall be utilized where feasible.

The Project Sponsor shall also ensure that the construction contractor appoints a coordinator who will serve as the point of contact for vibration-related complaints during Project construction. Contact information for the coordinator shall be posted at the Project site and on a publicly available Project website. The coordinator shall work with the construction team to adjust activities if complaints are received, to the extent feasible, or reschedule activities for a less sensitive time. The coordinator shall notify the City of all vibration-related complaints and actions taken to address the complaints.

Nighttime Construction

Impacts on Offsite Land Uses

During nighttime construction activities, vibration-generating construction equipment may be operated approximately 100 feet from the nearby commercial and industrial buildings and approximately 600 feet from the nearest residences. As shown in Table 3.6-13, vibration from nighttime construction activities, which could include the use of a vibratory roller, could have a PPV of up to 0.002 in/sec at the nearest residence. This level of vibration would not be perceptible to residents; therefore, the vibration would not be considered excessive. Annoyance-related vibration impacts from nighttime construction activities at offsite residences would be ***less than significant***.

For commercial uses, at a distance of 100 feet, a vibratory roller could produce a PPV of up to 0.026 in/sec. This level of vibration would be perceptible but not distinctly perceptible, based on Table 3.6-3, and thus the vibration would not be considered excessive. Therefore, annoyance-related vibration impacts from nighttime construction activities at offsite commercial buildings would be considered ***less than significant***.

Impacts on Onsite Land Uses

During nighttime construction activities, vibration-generating construction equipment may be operated approximately 100 feet from onsite residential buildings developed as part of the Project. As shown in Table 3.6-13, vibration from nighttime construction activities, which could include the use of a vibratory roller, could result in PPV of up to 0.026 in/sec at the nearest future onsite residence. This level of vibration would be perceptible but not distinctly perceptible, based on Table 3.6-3, and thus the vibration would not be considered excessive. Therefore, annoyance-related vibration impacts from nighttime construction activities at onsite residences would be ***less than significant.***

Operation

Operation of the Project would not involve the use of equipment that could generate excessive ground-borne vibration. Therefore, Project operation would have a ***less-than-significant impact*** with respect to the generation of ground-borne vibration or ground-borne noise levels.

Impact NOI-4: Aircraft Noise. The Project would not expose people residing or working in the Project area to excessive noise levels from aircraft. (Less than Significant)

Construction and Operation

As discussed in the *Environmental Setting*, the Project site is approximately 3 miles northwest of San José International Airport. It is also adjacent to but outside the AIA of San José International Airport (Figure 3.1-3). The Project would include utility work along Old Ironsides Drive, which is within the AIA of San José International Airport. However, the Project site does not fall within the 65 dBA CNEL noise contour (i.e., the lowest noise contour for aircraft noise) for San José International Airport and thus would not be exposed to aircraft noise above 65 dBA (Figure 3.1-4).[28] Therefore, although the Project site may receive some noise from aircraft, people living and working at the Project site would not be greatly affected by aircraft noise, and impacts would be ***less than significant***.

Cumulative Impacts

The geographic context for the analysis of cumulative construction noise impacts and stationary-source operational noise impacts is generally very small (a few hundred feet) because noise diminishes rapidly with distance (6 dBA per doubling of distance for point and stationary sources). For cumulative operational noise impacts (i.e., from traffic, specifically), the geographic context is generally larger; thus, the overall growth of a city or jurisdiction is considered when assessing potential cumulative impacts.

For aircraft noise, the project-level discussion above is inherently cumulative because it considers effects from all aircraft traffic at San José International Airport; this impact was less than significant. Thus, the topic is not discussed further.

Impact C-NOI-1: Cumulative Construction Noise. The Project, in combination with other foreseeable development in the vicinity, would generate a substantial temporary increase in ambient noise levels due to construction activities; such noise levels would exceed standards established in a local general

[28] Windus, Walter B. 2011. *Comprehensive Land Use Plan for San José International Airport*. Santa Clara County Airport Land Use Commission. Adopted: May 25, 2011. Amended: November 16, 2016.

plan or noise ordinance or applicable standards of other agencies. (Significant Unavoidable with Mitigation)

Construction noise is a localized impact that diminishes as distance from the noise source increases. Intervening features, such as buildings, between construction areas and nearby noise-sensitive uses result in additional noise attenuation by providing barriers that break the line of sight between noise-generating equipment and sensitive receptors. These barriers can block sound wave propagation and somewhat reduce noise at a given receiver.

With regard to cumulative construction noise impacts, the closest planned land use project is the Lake Park Office Development, which proposes a 150,000-gross-square-foot office development with two six-level parking structures on a 4.05 acre site adjacent to the northern border of the Project site.[29] In addition, Appendix 8.6 of the City's General Plan identifies areas of potential high-density residential and low-intensity office/R&D development south and west of the Project site, respectively.[30] In addition, as shown in Chapter 3, *Introduction to Analysis*, Table 3-1, the Patrick Henry Specific Plan is a future project that would allow up to 12,000 net new residential units, which would result in noise-sensitive land uses being located approximately 100 feet from the southern border on the Project site.

It is not known if construction of the Lake Park Office Development, Patrick Henry Specific Plan, or areas for potential future development would occur at the same time as construction of the Project, which could result in cumulative construction noise effects. However, Project construction could occur in proximity to the construction of other cumulative projects. Construction noise from the Project could combine with noise from other projects and result in individual receptors experiencing greater overall construction noise levels. Furthermore, construction of the future Patrick Henry Specific Plan residential units located south of the Project site would increase the number of sensitive receptors that would be exposed to construction noise during Project construction. Therefore, construction noise from the Project and other cumulative projects could exceed the City's exterior noise limits at sensitive land uses (shown in Table 3.6-4) or result in a 10 dB or greater increase over the ambient noise level. In addition, the future presence of residential units at the Patrick Henry Specific Plan site would result in more of a construction noise impact than that analyzed for the project-level discussion under NOI-1, above. The future residents south of the Project site could be located as close as 100 feet from construction activity, which is the same distance assumed for onsite residential receptors on the Project site (see Impact NOI-1). At a distance of 100 feet, construction noise was determined to be significant for onsite receptors during nighttime construction, and the same conclusion would apply to the Patrick Henry Specific Plan residential units. Because future or approved projects in proximity to the Project site, such as those listed in Chapter 3 *Introduction to Analysis,* Table 3-1, could undergo construction concurrently with the Project, resulting in significant noise-level increases and expanding the number of people exposed to construction noise, cumulative construction noise impacts would be considered significant.

Implementation of Mitigation Measure NOI-1.1 would reduce construction noise levels by incorporating practices to minimize noise and ensuring that Project construction activities would comply with the City Code provisions pertaining to construction noise. However, the noise controls may not reduce noise enough in all instances to prevent a noise increase of 10 dB or more relative to ambient noise levels or reduce nighttime construction noise to a level that would be in compliance with City Code noise limits.

[29] City of Santa Clara. n.d. *Development Projects Story Map.* Available: https://missioncity.maps.arcgis.com/apps/MapTour/index.html?appid=5afdbed13fad458cb6288c46a0bad060. Accessed: January 26, 2023.

[30] City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan.* Appendix 8.6: General Plan Land Use Assumptions. Available: https://www.santaclaraca.gov/home/showpublisheddocument/56139/636619791319700000. Accessed: August 29, 2023.

Although mitigation would be implemented for the Project to reduce construction noise impacts (see Mitigation Measures NOI-1.1), project-level construction noise impacts for the Project were determined to be significant and unavoidable. Because Project construction noise could exceed the City's exterior noise limits at sensitive land uses or result in a 10 dB or greater increase over the ambient noise level, resulting in a significant impact on its own due to the inability to mitigate the impact to less than significant, the Project's contribution to this cumulative impact would be cumulatively considerable. The cumulative impact would occur at onsite receptor locations and at the future residential uses at the site for the Patrick Henry Specific Plan. Thus, this cumulative impact would be ***significant and unavoidable with mitigation***.

Impact C-NOI-2: Cumulative Operational Noise. With implementation of mitigation, the Project, in combination with other foreseeable development in the vicinity, would not generate a substantial permanent increase in ambient noise levels in the vicinity of the Project; such noise levels would not exceed standards established in a local general plan or noise ordinance or applicable standards of other agencies. (Less than Significant with Mitigation)

Operational Traffic Noise

To determine potential cumulative operational traffic noise impacts in the area, noise levels were quantitatively evaluated for existing conditions and a future-year condition, assuming build-out of cumulative development in the Project area. For the future-year condition, noise levels were evaluated for a no-Project and with-Project scenario. The difference in noise between existing conditions and the future year with-Project scenario represents the increase in noise from the Project as well as background growth and other cumulative development in the area. As such, the comparison between existing and with-Project conditions does not isolate the Project's increase in traffic noise, but the comparison is useful in determining if a significant cumulative impact would occur. To determine if the Project would contribute considerably to a cumulative impact, the future-year noise levels with the no-Project and with-Project scenarios are compared. The difference in noise between the future-year no-Project and with-Project scenarios represents the Project's incremental contribution to noise levels in the area from a cumulative standpoint. Table 3.6-14 shows the results of the cumulative noise modeling analysis.

Table 3.6-14. Existing Roadways – Traffic Noise Impacts (Future)

Roadway Segment	Existing (L_{dn})	No Project (L_{dn})	Project (L_{dn})	Increase (dB) Relative to Existing	Increase (dB) Relative to No Project	Cumulatively Considerable Contribution[a]
Tasman between Reamwood and Patrick Henry	65.3	71.1	72.4	7.1	1.3	No
Tasman between Birchwood and Lawrence Expressway	66.8	71.3	72.3	5.5	0.9	No
Lawrence Expressway between US 101 and Tasman	74.3	74.9	75.1	0.8	0.2	No
Lawrence Expressway between Tasman and Elko	74.1	75.6	75.9	1.8	0.3	No
Tasman between Lawrence Expressway and Fair Oaks	62.1	68.0	68.7	6.6	0.7	No
Tasman between Great America and Old Ironside	60.8	67.9	70.1	9.3	2.2	No
Great America between Old Glory and Patrick Henry	72.4	74.4	75.4	3.0	1.0	No

Roadway Segment	Existing (L_{dn})	No Project (L_{dn})	Project (L_{dn})	Increase (dB) Relative to Existing	Increase (dB) Relative to No Project	Cumulatively Considerable Contribution[a]
Great America between Old Glory and Mission College	73.1	76.0	76.3	3.3	0.3	No
Great America between Tasman and Bunker Hill	72.0	74.9	75.1	3.0	0.2	No
Tasman between Great America and Lafayette	64.9	70.8	71.0	6.1	0.1	No
Lafayette between Tasman and Agnew	65.9	70.8	71.0	5.1	0.2	No
Lafayette between Tasman and SR 237	66.7	69.9	70.0	3.3	0.2	No
Great America between US 101 and Mission College	74.0	77.0	77.2	3.2	0.2	No
Lawrence Expressway between Oakmead and Arques	76.7	77.3	77.5	0.8	0.2	No
Bowers Between Scott and Central Expressway	70.8	72.2	72.7	1.9	0.5	No
Tasman between Lickmill and Renaissance Drive	67.9	72.4	72.4	4.6	0.0	No
Great America between Old Mountain View-Alviso Road and SR 237	72.7	74.8	75.1	2.4	0.3	No
Mission College between Freedom (west) and Freedom (east)	65.0	68.9	69.4	4.4	0.6	No
Bowers between US 101 and Scott	73.8	74.8	74.8	1.0	0.0	No
Agnew between Lafayette and Mission College	59.2	61.7	62.6	3.4	0.8	No
Lawrence Expressway between Central Expressway and Arques	75.5	76.3	76.4	1.0	0.1	No
Mission College between Burton and Wyatt	67.6	71.0	71.2	3.6	0.2	No
Montague Expressway between Lafayette and Thomas	74.0	76.4	76.5	2.5	0.1	No
Montague Expressway between US 101 and Thomas	75.6	77.5	77.6	2.0	0.0	No
Montague Expressway between De La Cruz and Lafayette	74.3	76.8	76.9	2.6	0.1	No

Notes:

a. A change of 3 dB or less in traffic noise levels would not constitute a significant impact because such a change is considered just noticeable.

Table 3.6-14 indicates that traffic noise levels would increase substantially at some roadways between the future year with-Project scenario and existing conditions. As noted above, this comparison includes growth from the Project and all other growth in the area between existing conditions and the future year, but it does not isolate the Project's incremental contribution to traffic noise. The greatest increase between existing conditions and the future-year with-Project scenario would be 9.3 dB, which is approaching the increase in noise that is considered a doubling in volume. Consequently, there would be a significant cumulative impact as a result of Project and non-Project growth in the area. However, as shown in Table 3.6-14, the maximum increase between future no-Project and with-Project conditions is 2.2 dB, which would occur on Tasman Drive between Great America Parkway and Old Ironsides Drive. As noted above, a change of 3 dB is just noticeable; therefore, a change of 2.2 dB would not be noticeable. Most evaluated segments would have much smaller Project-related traffic increases, with many segments experiencing less than a 1 dB increase in noise from Project-added traffic. Because Project-related increases in the cumulative condition would be less than 3 dB for all analyzed segments, the Project contribution would not be noticeable. Although there is a significant cumulative impact, the Project's contribution to the significant cumulative traffic noise impacts would not be cumulatively considerable. This impact would be ***less than significant***.

Other Operational Noise Sources

Mechanical Equipment Noise

The Project area contains many disparate buildings, with each likely to have its own noise-generating mechanical equipment. Because multiple cumulative projects may be located close to one another, it is possible that noise from the Project's mechanical equipment could combine with equipment from nearby projects to cause a cumulative noise impact at noise-sensitive land uses. Although stationary noise sources are regulated by the exterior noise limits in the City Code, the code does not necessarily prevent all noise violations from other equipment in the area. As such, it is conservatively assumed that cumulative impacts from stationary sources would be significant.

As discussed above, noise from the mechanical equipment at the Project site could exceed the noise limits in the City Code, particularly at future onsite residences and commercial uses located within 50 feet. This could be considered a cumulatively considerable contribution to noise from other projects in the area. In addition, in the future, there will be an expansion in noise-sensitive land uses in the area, with construction of the residential units at the site for the Patrick Henry Specific Plan approximately 100 feet from the Project site. Therefore, the cumulative impact is considered significant. With implementation of Mitigation Measure NOI-2.1, the Project's-contribution to the cumulative noise impact would not be cumulatively considerable. Mitigation Measure NOI-2.1 would reduce noise from mechanical equipment associated with the Project, which would minimize the noise exposure for future receptors south of the Project site. In addition, it is likely that similar mitigation would be required for other projects in the vicinity, ensuring that equipment noise would be in compliance with the applicable local noise standards. As a result, the contribution of the Project to the significant cumulative operational equipment noise impact would not be cumulatively considerable. This impact would be ***less than significant with mitigation***.

Emergency Generator Noise

Emergency generators included in the development of cumulative projects would result in the generation of audible noise during testing. Although it is not currently known where emergency generators would be proposed for cumulative projects or what their testing schedule would be, it is very unlikely that the

testing of an emergency generator for the Project would occur concurrently with the testing of a generator at a nearby project. Even if testing were to occur simultaneously, it is not likely that the generators would be close enough together for the noise to meaningfully combine at an individual receptor. However, as shown in Chapter 3, *Introduction to Analysis*, Table 3-1, the Patrick Henry Specific Plan is a future project that would allow up to 12,000 net new residential units, resulting in noise-sensitive land uses being located approximately 100 feet from the southern border on the Project site. The presence of these future receptors could result in a significant cumulative impact because the project-level impact was found to be significant for onsite residents at a distance of 50 feet from the generators. Although the Patrick Henry Specific Plan residential units would be more than 50 feet from the Project site, generator noise could still exceed the City Code noise limits at 100 feet. Mitigation Measure NOI-2.1 would reduce generator noise from the Project, which would minimize the noise exposure for future receptors located south of the Project site. Therefore, a significant cumulative impact would not occur with respect to emergency generator noise, and the impact would be ***less than significant with mitigation***.

Other Operational Noise Sources

The impact conclusions for other operational noise sources were less than significant for the project-level analysis (see Impact NOI-2). Although there would be more noise-sensitive land uses in the future when the Patrick Henry Specific Plan is completed, those new residential units would be located a greater distance from the Project site than the distance used to evaluate impacts from other operational sources on onsite residential uses at the Project site. Thus, because impacts were found to be less than significant for onsite uses, the impacts would be less severe for the Patrick Henry Specific Plan residences because of the greater distance. Therefore, a significant cumulative impact would not occur with respect to other operational noise. The impact would be ***less than significant.***

Impact C-NOI-3: Cumulative Ground-borne Vibration and Noise Levels. The Project, in combination with other foreseeable development in the vicinity, would generate excessive ground-borne vibration or ground-borne noise levels. (Significant and Unavoidable with Mitigation)

Construction

Vibration impacts are based on instantaneous PPV levels. Because PPV is a measure of the peak instantaneous vibration level rather than an average, other sources of vibration that may operate simultaneously with cumulative projects, or even at the same site, would not be expected to combine and raise the overall peak vibration level experienced at a nearby sensitive uses. Worst-case ground-borne vibration levels are generally determined by the equipment that generates the highest vibration level at an affected location; therefore, vibration would be dominated by the closest and most vibration-intensive equipment being used at a given time.

In general, vibration from multiple construction sites, even if they are close to one another, would not combine to raise the maximum PPV level at sensitive uses. For this reason, a significant cumulative impact from construction vibration from multiple construction projects near one another (or even adjacent to one another) would not occur. However, the Patrick Henry Specific Plan would construct new residential units, which would result in vibration-sensitive land uses being located approximately 100 feet from the southern border on the Project site. Although there are currently no sensitive land uses in this area, the land uses and occupants would very likely be present during construction. As noted in Impact NOI-3, at a distance of 100 feet, pile driving would generate vibration that would be above the level considered strongly perceptible. Although no structure damage would occur, pile driving would generate substantial vibration, affecting future occupants on the site for the Patrick Henry Specific Plan. Mitigation Measure

NOI-3.1 would be implemented to minimize this impact as well as the project-level impact; however, it cannot be determined whether vibration levels would be reduced to a level below the strongly perceptible threshold in all circumstances. For this reason, cumulative vibration impacts would be ***significant and unavoidable with mitigation***.

Operation

As noted above in the project-level analysis, operation of the Project would not involve the use of equipment that could generate excessive ground-borne vibration and, thus, would not contribute to a cumulative impact. Therefore, cumulative vibration impacts during operation would be ***less than significant,*** and no mitigation would be necessary.

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3.7 Cultural Resources

This section describes the existing environment for cultural resources within and around the Mission Point Project (Project) site and evaluates the potential for impacts related to cultural resources to occur as a result of development of the Project. The term "cultural resources" refers to built-environment resources (e.g., buildings, structures, objects, districts) and archaeological resources. Included in this section are brief descriptions of the environmental setting, the pre-European contact cultural chronology, and the historic setting of the Project site. In addition, the results of built-environment and archaeological resources investigations are included. The Project's ethnographic setting and impacts on tribal cultural resources are addressed in Section 3.14, *Tribal Cultural Resources*.

No questions or concerns related to cultural resources were raised in the responses to the Notice of Preparation (NOP) (Appendix 1).

Existing Conditions

Regulatory Setting

Federal

National Historic Preservation Act, Section 106

Although the Project is not anticipated to require compliance with Section 106 of the National Historic Preservation Act, the National Register of Historic Places (NRHP) and federal guidelines related to the treatment of cultural resources are relevant for the purposes of determining whether significant cultural resources, as defined under the California Environmental Quality Act (CEQA), are present and guiding the treatment of such resources.

National Historic Preservation Act and National Register of Historic Places

Built-environment and archaeological resources are protected under the National Historic Preservation Act (16 United States Code 470f). The National Historic Preservation Act requires project review of effects on historic properties only when projects involve federal funding or permitting or occur on federal land; therefore, it is not applicable to discretionary actions at the municipal level. However, the National Historic Preservation Act establishes the NRHP, which provides a framework for resource evaluation and informs the process for determining impacts on historical resources under CEQA.

The NRHP is the nation's official comprehensive inventory of historic resources. Administered by the National Park Service, the NRHP includes buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. Typically, a resource that is more than 50 years of age is eligible for listing in the NRHP if it meets any one of the four eligibility criteria and retains sufficient historical integrity. A resource that is less than 50 years old may be eligible if it can be demonstrated that it is of "exceptional importance" or a contributor to a historic district. NRHP criteria are defined in *National Register Bulletin Number 15: How to Apply the National Register Criteria for Evaluation.*

California properties that are listed in the NRHP, as well as properties that are formally determined to be eligible for listing in the NRHP, are automatically listed in the California Register of Historical Resources (CRHR), described below, and therefore considered historical resources under CEQA.

State

California Environmental Quality Act, Public Resources Code Section 21082.2, and State CEQA Guidelines

CEQA requires the lead agency to consider the effects of a project on historical resources. State CEQA Guidelines Section 15064.5 provides specific guidance for determining the significance of impacts on historical resources (State CEQA Guidelines Section 15064.5[b]) and unique archaeological resources (State CEQA Guidelines Section 15064.5[b] and Public Resources Code [PRC] Section 21083.2). Under CEQA, these resources are called "historical resources" whether they are of historic or pre-European contact age. CEQA Section 21084.1 defines historical resources as those listed in, or formally determined to be eligible for listing in, the CRHR or the historical register of a local jurisdiction (i.e., county or city), unless the preponderance of evidence demonstrates that the resource is not historically or culturally significant. NRHP-listed "historic properties" in California are considered historical resources for the purposes of CEQA and listed in the CRHR. The CRHR criteria for listing such resources are based on, and very similar to, the NRHP criteria. CEQA Section 21083.2 and State CEQA Guidelines Section 15064.5(c) provide further definitions and guidance for archaeological sites and their treatment.

California Register of Historical Resources (PRC Section 5024.1)

PRC Section 5024.1 establishes the CRHR. The register lists all California properties considered to be significant historical resources. The CRHR also includes all California properties listed in, or determined eligible for listing in, the NRHP, including California properties evaluated and determined eligible under Section 106. The criteria for listing in the CRHR, Criteria 1 through 4, are similar to those of the NRHP, as follows:

- Criterion 1: Resources associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States;
- Criterion 2: Resources associated with the lives of persons important to local, California, or national history;
- Criterion 3: Resources that embody the distinctive characteristics of a type, period, region, or method of construction or represent the work of a master or possess high artistic value; and
- Criterion 4: Resources that have yielded, or have the potential to yield, information important to the prehistory or history of the local area, California, or the nation. (14 California Code of Regulations Section 4852[b]).

The CRHR regulations govern the nomination of resources to the CRHR (14 California Code of Regulations Section 4850). The regulations set forth the criteria for eligibility as well as guidelines for assessing historical integrity and resources that have special considerations.

Unique Archaeological Resources – PRC Section 21083.2(g); State CEQA Guidelines Section 15064.5(c)

PRC Section 21083.2(g) defines a unique archaeological resource as 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 meets the following criteria:

1. It contains information needed to answer important scientific research questions, and there is a demonstrable public interest in that information;
2. It has a special and particular quality, such as being the oldest of its type or the best available example of its type; and
3. It is directly associated with a scientifically recognized important prehistoric or historic event or person.

State CEQA Guidelines Sections 15064.5(c) specifies how CEQA applies to archaeological sites, including archaeological sites that are historical resources, unique archaeological resources, or neither.

Human Remains – Health and Safety Code 7050.5; State CEQA Guidelines Section 15064.5(d) and (e)

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, Section 7050.5 of the Health and Safety Code states that there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains were discovered has determined whether the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification. State CEQA Guidelines Sections 15064.5(d) and (e) specify responsibilities regarding human remains as well as the respectful treatment of human remains, including Native American human remains, that are found or likely to be found within a project site.

Local

City of Santa Clara 2010–2035 General Plan

The City of Santa Clara 2010–2035 General Plan (General Plan) contains goals and policies related to the City of Santa Clara's (City's) local inventory and preservation of cultural resources. General Plan policies relevant to the Project are as follows:

- **Goal 5.6.3-G1.** Protection and preservation of cultural resources as well as archaeological and paleontological sites.
- **Goal 5.6.3-G2.** Appropriate mitigation in the event that human remains, archaeological resources, or paleontological resources are discovered during construction activities.
    - *Policy 5.6.3-P1.* Require that new development avoid or reduce potential impacts on archaeological, paleontological, and cultural resources.
    - *Policy 5.6.3-P2.* Encourage salvage and preservation of scientifically valuable paleontological or archaeological materials.
    - *Policy 5.6.3-P4.* Require that a qualified paleontologist/archaeologist monitor all grading and/or excavation if there is potential to affect archaeological or paleontological resources, including sites within 500 feet of natural watercourses and in the Old Quad neighborhood.

- *Policy 5.6.3-P5.* In the event that archaeological/paleontological resources are discovered, require that work be suspended until the significance of the find and recommended actions are determined by a qualified archaeologist/paleontologist.
- *Policy 5.6.3-P6.* In the event that human remains are discovered, work with the appropriate Native American representative and follow the procedures set forth in State of California (State) law.

Criteria for Local Significance

In addition to the policies listed above, General Plan Appendix 8.9 includes the Criteria for Local Significance, which were adopted by the City Council on April 20, 2004. The criteria establish evaluation measures to verify that a resource is at least 50 years old and that a property is associated with an important individual or event, an architectural innovation, and/or an archaeological contribution in order to be deemed significant.

Qualified Historic Resources. Any building, site, or property in the City that is 50 years old or older and able to meet certain criteria of architectural, cultural, historical, geographical, or archaeological significance is potentially eligible.

Criteria for Historical or Cultural Significance. To be historically or culturally significant, a property must meet at least one of the following criteria:

- The site, building, or property has character, interest, and integrity and reflects the heritage and cultural development of the city, region, state, or nation;
- The property is associated with a historical event;
- The property is associated with an important individual or group who contributed in a significant way to the political, social, and/or cultural life of the community;
- The property is associated with a significant industrial, institutional, commercial, agricultural, or transportation activity;
- A building has a direct association with broad patterns of local area history, including development and settlement patterns; early or important transaction routes; or social, political, or economic trends and activities. Included is the recognition of the urban street pattern and infrastructure; or
- A notable historical relationship between a site, building, or property's site and its immediate environment, including original native trees, topographical features, outbuildings, or agricultural setting.

Criteria for Architectural Significance. To be architecturally significant, a property must meet at least one of the following criteria:

- The property characterizes an architectural style associated with a particular era and/or ethnic group;
- The property is identified with a particular architect, master builder, or craftsman;
- The property is architecturally unique or innovative;
- The property has a strong or unique relationship to other areas potentially eligible for preservation because of architectural significance;
- The property has a visual symbolic meaning or appeal for the community;

- A building has unique or uncommon building materials or a historically early or innovative method of construction or assembly; or
- A building has notable or special attributes of an aesthetic or functional nature. These may include massing, proportion, materials, details, fenestration, ornamentation, artwork, or functional layout.

Criteria for Archaeological Significance. For the purposes of CEQA, an "important archaeological resource" is one that:

- Is associated with an event or person of
  - Recognized significance in California or American history, or
  - Recognized scientific importance in prehistory;
- Can provide information that is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable or archaeological research questions;
- Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind;
- Is at least 100 years old and possesses substantial stratigraphic integrity; or
- Involves important research questions that historical research has shown can be answered only with archaeological methods.

Santa Clara City Code

Title 12, Chapter 12.25.170, of the City Code contains "mitigation requirements for potentially significant archaeological impacts" identified during site work within the City public right-of-way (ROW). If, during the course of site work within the City public ROW, a cultural resource is found, all work within 50 feet of the find must stop and a qualified archaeologist must examine the find, determine its significance, and submit a treatment plan to the City. Other requirements in this section include monitoring earthmoving activities by a qualified archaeologist if archaeological resources are found onsite and notification of the coroner if Native American remains are found.

Environmental Setting

The setting for the Project consists of existing as well as relevant historical conditions within the CEQA study area, which is the Project site. The study area was delineated to consider potential impacts on built-environment and archaeological cultural resources caused by Project activities, including ground disturbances, alterations, and building and/or structure demolition, which could result in a substantial adverse change in the significance of these resources.

This section provides a brief environmental, pre-European contact, and historical overview of the Project site and surrounding area.

Pre-European Contact Cultural Chronology[1]

In the San Francisco Bay Area region of central California, researchers have developed chronologies to describe the general evolution of precontact cultures through time. These chronologies include the Central California Taxonomic System, which identified three broad culture periods, based on artifact variations associated with burials in the lower Sacramento Valley, and the Archaic-Emergent temporal

[1] These phases are academic constructs and do not necessarily reflect the views of Native Americans.

sequence developed by Fredrickson,[2] which identified four chronological periods, based on technological, subsistence, economic, social, and political behavior. To account for advances in archaeological dating technology and archaeological field data regarding the nature of Native California occupation during the precontact period, these chronologies have been revised into an integrative scheme that accounts for both a temporal and cultural sequence for the area.[3] This scheme, summarized below, consists of an updated chronological sequence composed of six periods: the Early Holocene/Lower Archaic (8000–3500 calibrated years [cal] B.C.), Early Period (3500–500 cal B.C.), Lower Middle Period (500 cal B.C.–cal A.D. 430), Upper Middle Period (cal A.D. 430–1050), Initial Late Period (cal A.D. 1050–1550), and Terminal (Phase 2) Late Period (cal. A.D. 1550–1850).[4]

Early Holocene/Lower Archaic (8000–3500 cal B.C.)

The Early Holocene is characterized by "a generalized mobile forager pattern," as indicated by assemblages containing millingslabs and handstones, as well as large wide-stemmed and leaf-shaped projectile points.[5] Early Holocene archaeological sites are rare; this may be because ancient deposits are very likely underlying several feet of sediment or submerged by sea-level rise.[6] However, Early Holocene deposits have been identified at a few scattered locations in central California.

Early Period/Middle Archaic (3500–500 cal B.C.)

The Early Period is marked by increased sedentism, regional trade, and symbolic integration, as evidenced by ground stone technology and thick, rectangular *Olivella* shell beads.[7] A transition from a forager adaption to semi-sedentism is indicated in the archaeological record of bayshore shellmounds from this period.[8]

Lower Middle Period/Initial Upper Archaic (500 cal B.C.–A.D. cal 430)

Symbolic integration and technology evolved during the Lower Middle Period. At the onset of the Middle Period—referred to as the Early-Middle Transition (cal B.C. 600–200)—rectangular shell beads are replaced in the archaeological record with stylistically new beads, including split-beveled and saucer *Olivella* types. Other artifacts introduced during this period include barbless fish spears, elk femur spatula, tubes, whistles, and bone basketry awls.[9]

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2 Fredrickson, David A. 1974. Cultural Diversity in Early Central California: A View from the North Coast Ranges. In *The Journal of California Anthropology* 1(1):41–53.

3 Milliken, Randall, Richard T. Fitzgerald, Mark G. Hylkema, Randy Groza, Thomas M. Origer, David G. Bieling, Alan Leventhal, Randy S. Wiberg, Andrew Gottsfield, Donna Gillette, Viviana Bellifemine, Eric Strother, Robert Cartier, and David A. Fredrickson. 2007. Punctuated Culture Change in the San Francisco Bay Area. In *California Prehistory: Colonization, Culture, and Complexity*, T.L. Jones and K.A. Klar (eds.), pp. 99–123. AltaMira Press, Lanham, MD.

4 Ibid.

5 Ibid.

6 Meyer, Jack, and Jeffrey Rosenthal. 2007. *Geoarchaeological Overview of the Nine Bay Area Counties in Caltrans District 4.* Far Western Anthropological Research Group, Inc., Davis, CA.

7 Olivella shell beads are a type of marine gastropod mollusk whose shell was utilized for beads. The presence and style of these beads can assist in dating archaeological sites.

8 Groza, Randall G., Jeffrey Rosenthal, John Southon, and Randall Milliken. 2011. A Refined Shell Bead Chronology for Late Holocene Central California. In *Journal of California and Great Basin Anthropology* 31(2):135–154.

9 Elsasser, Albert B. 1978. Development of Regional Prehistoric Cultures. In *Handbook of North American Indians.* Volume 8: California. R.F. Heizer (ed.), pp. 37–57. Smithsonian Institution, Washington, D.C.

Upper Middle Period/Late Upper Archaic (cal A.D. 430–1050)

The Upper Middle Period is characterized by dramatic cultural and demographic disruption that climaxed circa cal A.D. 1000. During this time, a new population, known as the Meganos Aspect, migrated from the San Joaquin Delta to most of the East Bay's interior valleys and the Santa Clara Valley.[10] This new population was distinguished by a distinct mortuary complex and stylistic and temporally distinct *Olivella* saddle beads.[11]

Initial Late Period/Lower Emergent (cal A.D. 1050–1550)

The Initial Late Period represents the ethnographically documented cultures present at the time of European contact. Late Period deposits in central California have been documented from most interior valleys and bayshore locations as well as upland contexts. New technology was introduced during this period, notably the bow and arrow, which is evidenced in the archaeological record by small dart-sized projectile points.[12] Other artifacts include *Haliotis* banjo-shaped ornaments, collared smoking pipes, and temporally distinct *Olivella* beads.[13]

Terminal (Phase 2) Late Period (cal. A.D. 1550–1850)

Archaeologists refer to the time after circa A.D. 1500 until Euro-American contact as Phase 2 of the Late Period in central California, characterized in part by new bead types such as those made from saltwater clam shells (*Saxidomus* sp. and *Tresus* sp.), dentalium shells, and magnesite. These new artifacts were used as a medium of monetized exchange until Euro-American contact, representing social and economic integration previously unseen in the archaeological record for central California.[14]

Historic Setting

Spanish colonization of what is now California began in the late 1700s as missions were developed to convert the native peoples to Catholicism as well as European modes of economic production, in addition to creating economically self-sufficient colonial communities. When Mexico won its independence from Spain in 1824, one of the first acts of the new government was to secularize the missions and redistribute the mission property through land grants to individuals who promised to work the land, primarily by raising cattle. Much like elsewhere in California, ranching became the driving force of the economy and culture in the Santa Clara Valley.[15]

In 1848, the United States and Mexico signed the Treaty of Guadalupe Hidalgo. As a result, the United States gained approximately 50 percent of Mexico's territory, including what would become the state of California. In January of that year, James Marshall discovered gold in the Sierra Nevada foothills. News of the discovery began to be disseminated in May 1848, and within weeks, people flocked to the Sierra

[10] Bennyhoff, James A. 1994a. Central California Augustine: Implications for Northern California Archaeology. *In Toward a New Taxonomic Framework for Central California Archaeology*. Essays by James A. Bennyhoff and David A. Fredrickson, R.E. Hughes (ed.), pp. 65–74. University of California Archaeological Research Facility, Berkeley.

[11] Milliken et al. 2007.

[12] Bennyhoff, James A. 1994b. Variation within the Meganos Culture. In *Toward a New Taxonomic Framework for Central California Archaeology.* Essays by James A. Bennyhoff and David A. Fredrickson, R.E. Hughes (ed.), pp. 81–89. University of California Archaeological Research Facility, Berkeley.

[13] Groza et al. 2011.

[14] Von Der Porten, Peter, Katherine Dixon, and Alexander L. DeGeorgey. 2014. Seriation of Clam Shell Disk Beads in Central California. In *Proceedings of the Society for California Archaeology* 28:267–281.

[15] Bean, W., and J. Rawls. 2002. *California: An Interpretive History.* Eighth edition. McGraw Hill, New York, NY.

Nevada foothills in hopes of striking it rich. By the end of summer, newcomers were flooding into California, hoping to find fortune in the goldfields.[16]

The California State Legislature created 27 counties in 1850, including Santa Clara County. As gold fever subsided, American newcomers increasingly sought to acquire land. The federal government created the California Land Claims Commission in 1851 to institute a process for validating the land grants that the Mexican government had made to members of the ethnic Mexican or *Californio* population. In practice however, the long process and legal expense of confirming titles, along with the problem of squatters, worked against *Californios*, whose land was increasingly acquired by American newcomers.[17]

In 1851, Santa Clara College (now Santa Clara University) was founded on a former mission site. The incorporation of Santa Clara followed in 1852.[18] As the gold rush population influx increased the demand for fresh food, California's agricultural economy, long dominated by cattle raising, began to diversify. In the southern San Francisco Bay Area, a combination of wheat and barley fields, dairies, and orchards came to dominate the valley floor during the 1860s and 1870s.[19] With the collapse of the worldwide wheat market in the late 1870s, fruit farming became increasingly important in the Santa Clara Valley. The development of the refrigerated railroad car allowed for the transport of agricultural produce to distant markets. The Santa Clara Railroad Depot, built in 1863, became an important hub as local exports increased.[20] By the 1890s, orchard production had become the leading agricultural activity in the valley. Local canning and seed/fruit packing operations quickly multiplied as a result. Orchards continued to blanket the valley and drive the local economy into the 1940s.[21]

The Hetch Hetchy Reservoir and Water System, a water conveyance system that transports water from O'Shaughnessy Dam in Yosemite National Park to the Bay Area, was built during the 1920s and 1930s. Two underground pipelines were aligned through Santa Clara County, and the Santa Clara Valley Water District, now known as Valley Water, was founded in 1929.[22]

Following World War II, light industrial and high-tech research-and-development facilities, coupled with expanding suburban housing development, gradually replaced the Santa Clara Valley's vast orchards. The end of the war brought a wave of scientific and military expansion, and thousands of military personnel settled in the area. Companies formerly tasked with providing technology to the government were now shifting their attention to the private sector. This environment, coupled with flourishing engineering and electronics departments at Stanford University, made Santa Clara County a prime spot for the emergence of the new electronics industry.[23,24]

16 Ibid.

17 Ibid.

18 City of Santa Clara. 2011. *City of Santa Clara 2010–2035 General Plan.*

19 Archives & Architecture, LLC. 2012. *County of Santa Clara Historic Context Statement*. Prepared for the County of Santa Clara Department of Planning and Development, San José, CA.

20 City of Santa Clara. 2011. *City of Santa Clara 2010–2035 General Plan.*

21 Archives & Architecture, LLC. 2012. *County of Santa Clara Historic Context Statement*. Prepared for the County of Santa Clara Department of Planning and Development, San José, CA.

22 Santa Clara Valley Water District. 2019. *About Valley Water*. Available: https://www.valleywater.org/how-we-operate/about-valley-water. Accessed: August 28, 2023.

23 Archives & Architecture, LLC. 2012. *County of Santa Clara Historic Context Statement*. Prepared for the County of Santa Clara Department of Planning and Development, San José, CA.

24 Laffey Architectural Archives. 1992. *Historical Context Statement—City of San José, California.* Available: http://www.laffeyarchives.org/contexts/sanJoségcontext.htm. Accessed: November 2014.

Business interests in the county saw an opportunity to expand beyond agricultural commerce and actively campaigned to attract electronic and defense companies. By the 1960s, these types of companies were responsible for the majority of the county's economic output, which increased further with the founding of Apple and development of the first personal computers in the 1970s. Santa Clara's population grew exponentially during this time, from 6,500 in 1940 to 89,000 in 1970.[25] The City's area grew from approximately 3.1 square miles in 1953 to 15 square miles in 1980.[26] Much of the expansion was due to the construction of single-family housing to serve the new workforce, along with industrial growth resulting from the technology industry. The increases in population and land area were accompanied by an increase in the number of automobiles. Eventually, the car-oriented society left its mark on the county. Other forms of transportation have also influenced development in Santa Clara. The Valley Transportation Authority (VTA) was created in 1972 by the Santa Clara County Transit District Authority. In the 1980s, an extensive light rail system was planned and built by VTA.[27] The system ran throughout the San José metro area. Regardless, suburban housing tracts became the predominant residential building type and car-oriented businesses lined the new expressways and boulevards.[28]

Project Site

The Project site was formerly used for agricultural production. Subdivisions, composed of track housing or mobile homes, were constructed on adjacent lands in the 1950s and 1960s. Based on a review of aerial photographs and online permit research, it appears that the Project site was redeveloped circa 1978 to 1979. During that period, roads appeared that surrounded or bisected the site and an office park with 10 light industrial buildings was built. All 10 buildings on the site were one story in height, with low-pitched mansard roofs.[29] Four of the buildings were located along Tasman Drive north of Democracy Way; the other six were clustered together south of Democracy Way. Surface parking lots were located on the periphery of the cluster of six buildings.

The cluster of six buildings south of Democracy Way was demolished circa 2010.[30] It appears that minimal site improvements have been made since demolition (e.g., new curbs and retaining walls near the periphery of the site). Levi's Stadium currently uses the area for overflow parking. The four buildings along Tasman Drive north of Democracy Way are extant, but three of them are vacant. One building is currently occupied.

In the late 1990s, VTA's light rail project was expanded to run along Tasman Drive and the northern boundary of the Project site; it opened to the public in 1999.[31] An underground pipeline, part of the Hetch-Hetchy Aqueduct system, is adjacent to the southern boundary of the Project site. The San Francisco Public

[25] City of Santa Clara. 2011. *City of Santa Clara 2010–2035 General Plan*.

[26] Ibid.

[27] Santa Clara Valley Transportation Authority. 2018. *About VTA.* Available: https://www.vta.org/about. Accessed: August 28, 2023.

[28] Laffey Architectural Archives. 1992. *Historical Context Statement—City of San José, California.* Available: http://www.laffeyarchives.org/contexts/sanJoségcontext.htm. Accessed: November 2014.

[29] A mansard roof is a roof that has four sloping sides, each of which becomes steeper halfway down.

[30] City of Santa Clara Community Development, Building Division. *Smart Permit Search: Parcels 104-04-142, 143, 150, 151.* Available: https://aca-prod.accela.com/santaclara/Default.aspx. Accessed: November 9, 2023.

[31] U.S. Department of Transportation, Federal Highway Administration. 2017. *CMAQ: Advancing Mobility and Air Quality.* Available: https://www.fhwa.dot.gov/Environment/air_quality/cmaq/research/advancing_mobility/03cmaq10.cfm. Accessed: August 2019.

Utilities Commission maintains a ROW on the parcel. The ROW that overlays the underground pipeline is developed for surface parking.[32]

Environmental Impacts

This section describes the impact analysis relating to cultural resources for the Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each significant impact discussion.

Thresholds of Significance

The Project would have a significant effect if it would result in any of the conditions listed below.

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

Methods for Analysis

Cultural Resource Data Sources

This section describes the methods used to establish baseline conditions for cultural resources at the Project site. It also describes the methods used to assess identified cultural resources at the Project site and in the vicinity and determine their significance under CEQA.

Background research was conducted to identify cultural resources as well as relevant cultural resources studies of areas within the Project site and assess the potential for subsurface archaeological deposits. The background research consisted of a records search at the Northwest Information Center (NWIC) and a literature and historical map review.

California Historical Resources Information Systems Record Search

On June 27, 2019, and September 28, 2022, archaeologists conducted a records search at the NWIC that encompassed the Project site and a 0.25-mile radius. The NWIC, an affiliate of the California Office of Historic Preservation, is the official state repository of cultural resources records and reports for Santa Clara County. As part of the records search, the following local and State inventories were reviewed:

- Five Views: An Ethnic Historic Site Survey for California,[33]
- California Historical Landmarks,[34]

[32] City of Santa Clara. 2009. *Yahoo Santa Clara Campus Project, Draft Environmental Impact Report*. November.

[33] Office of Historic Preservation. 1988. *Five Views: An Ethnic Sites Survey for California*. California Department of Parks and Recreation, Sacramento, CA.

[34] Office of Historic Preservation. 2022a. *California Historical Landmarks*. Available: http://ohp.parks.ca.gov/ListedResources/?view=county&criteria=1. Accessed: August 28, 2023.

- California Points of Historical Interest,[35] and
- Archaeological Determinations of Eligibility.[36]

In addition to the NWIC records, archival maps, aerial photographs, and geoarchaeological information was also reviewed to assist in identifying the potential for buried precontact and historic-period archaeological deposits.

Records Search Results

The results of the NWIC records search conducted in 2019 and 2022 indicate that no known or previously recorded cultural resources are located on or adjacent to the Project site. However, six cultural resources studies cover portions of the Project site, as summarized in Table 3.7-1, below.

Table 3.7-1. Cultural Resources Studies Overlapping the Project Site

Study Number	Author	Date	Title	Findings
S-120720	Archaeological Resource Service	1990	*Greystone Project, City of Santa Clara*	No resource identified; however, the report indicated potential for buried precontact archaeological deposits
S-014230	Archaeological Resource Management	1992	*Evaluation of Archaeological Resources for the San José/Santa Clara Nonpotable Water Reclamation Project*	No resource identified; however, the report indicated potential for buried precontact archaeological deposits and recommended monitoring
S-018377	Archaeological Resource Management	1996	*Cultural Resource Evaluation of the Santa Clara Pipe Alignment for the South Bay Water Recycling Project*	No resource identified; however, the report indicated potential for buried precontact archaeological deposits and recommended monitoring
S-019072	Basin Research Associates, Inc.	1996	*Historic Properties Treatment Plan, South Bay Water Recycling Program*	No resource identified; however, the report indicated potential for buried precontact archaeological deposits and recommended monitoring
S-023934	Jones & Stokes	2001	*Cultural Resources Investigations for XO California, Inc. Fiber Optic Installations in San Francisco and Santa Clara Counties*	No resource identified; however, the report indicated potential for buried precontact archaeological deposits and recommended monitoring
S-025173	Pacific Legacy, Inc.; William Self Associates, Inc.	2002	*Cultural Resources Report for San Jose Local Loops, Level 3 Fiber Optics Project in Santa Clara and Alameda Counties, California*	No resource identified; however, the report indicated potential for buried precontact archaeological deposits and recommended monitoring

Source: Northwest Information Center, Rohnert Park, CA.

[35] Office of Historic Preservation. 2022b. *California Points of Historical Interest.*

[36] Office of Historic Preservation. 2012. *Archaeological Determinations of Eligibility, Santa Clara County California.* Department of Parks and Recreation, Sacramento, CA.

Thirteen studies have been conducted outside of the Project site but within 0.25 mile of the site. These studies include archaeological reconnaissance, data recovery, and evaluation projects; general overview studies; and studies for infrastructure development. None of these studies identified any built-environment or archaeological resources within 0.25 mile of the Project site.

Historic-period maps and aerial photographs indicate that the Project site was undeveloped and primarily agricultural fields until mid-twentieth century; therefore, it is unlikely that any historic-period archaeological deposits are located within the Project site.

A review of the relevant geologic literature[37] found that pre-European contact archaeological deposits could be encountered during deep excavations. Pre-European contact archaeological deposits, including midden soils, hearths, stone tools, subsistence remains, and human remains, could occur below artificial fill. The Project site is underlain by Holocene alluvium deposits that consist predominantly of clay and sandy clay interbedded with lenses or layers of sand. These were most likely available for human habitation. Therefore, the Project may result in an adverse change to a buried archaeological deposit that could qualify as a historical resource or unique archaeological resource.

Topics Found to Have No Impact

Built Environment (CUL-1). Based on the results from research conducted, no built-environment historical resources are present in the study area. The Project would require demolition of the buildings on the site, which include four light industrial buildings along Tasman Drive, spanning the north edge of the Project site between Patrick Henry Drive and Old Ironsides Drive. These buildings were constructed circa 1978 and 1979.[38] None of the structures to be demolished as part of the Project are more than 50 years old and therefore none meet federal, State, or local criteria for significance. To be considered eligible for the NRHP, as well as the CRHR, properties must be at least 50 years old, unless they have achieved exceptional significance, based on *National Register Bulletin 22: Guidelines for Evaluating and Nominating Properties that Have Achieved Significance Within the Past Fifty Years*.[39] Research has not indicated that the light industrial buildings on the Project site have achieved exceptional significance in the past 50 years; therefore, they would not be considered eligible for the CRHR. Similarly, all buildings and structures surrounding or adjacent to the Project site were also constructed circa 1978 and 1979, or later, and therefore are not eligible for the CRHR.[40] No built-environment historical resources are present within the study area. As such, there would be ***no impact*** on built-environment historical resources.

[37] Langan. 2022. *Updated Preliminary Geotechnical Evaluation, 3005 Democracy Way Santa Clara, California.* Langan Project No. 770653101.

[38] ParcelQuest.com. n.d. Internet search. Available: https://pqweb.parcelquest.com/#home. Accessed: August 28, 2023.

[39] National Park Service. 1998. *National Register Bulletin 22: Guidelines for Evaluating and Nominating Properties that Have Achieved Significance within the Past Fifty Years.* Available: https://www.nps.gov/subjects/nationalregister/upload/NRB22-Complete.pdf. Accessed: August 23, 2023.

[40] ParcelQuest.com. n.d. Internet search. Available: https://pqweb.parcelquest.com/#home. Accessed: August 28, 2023.

Impacts and Mitigation Measures

Impact CUL-2: Archaeological Resources. With implementation of mitigation, the Project would not cause a substantial adverse change in the significance of a historical or archaeological resource pursuant to Section 15064.5. (Less than Significant with Mitigation)

Construction

According to the State CEQA Guidelines, "When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource " (State CEQA Guidelines Section 15064.5[c][1]). Archaeological sites that do not qualify as historical resources shall be assessed to determine if they qualify as "unique archaeological resources" (PRC Section 21083.2; State CEQA Guidelines Section 15064.5[c][3]).

The results of the NWIC records search conducted in 2019 and 2022 indicate that no known previously recorded cultural resources are located within or adjacent to the Project site. Historic-period maps and aerial photographs indicate that the Project site was undeveloped and primarily agricultural fields until mid-twentieth century; therefore, it is unlikely that any historic-period archaeological deposits are located within the Project site that could qualify as historical resources. However, a review of the relevant geologic literature indicated sensitivity for buried pre-European contact archaeological deposits.

Project construction would require below-grade excavations of up to 16 feet for parking, service access to buildings, foundations, and utilities. Therefore, excavations related to Project construction could encounter archaeological deposits and result in an adverse change to a buried archaeological deposit that could qualify as a historical resource and/or unique archaeological resource. Thus, ***significant*** impacts related to buried archaeological deposits could result from construction of the Project.

MITIGATION MEASURES. Implementation of Mitigation Measures CUL-2.1, CUL-2.2, and CUL-2.3 would ensure that impacts related to archaeological resources that qualify as historical resources and/or unique archaeological resources would be reduced to ***less than significant with mitigation*** through implementation of a monitoring plan, worker awareness training, and requirements to stop work if archaeological deposits are encountered during ground-disturbing activities.

CUL-2.1: *Develop and Implement Archaeological Monitoring Plan*. Given the potential for buried pre-European contact archaeological deposits to be encountered during Project construction, the following measures shall be undertaken to avoid any significant impacts on such resources. An Archaeological Monitoring Plan shall be developed by a qualified archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology[41] prior to any Project-related ground disturbance to determine specific areas of archaeological sensitivity within proposed work areas. The Archaeological Monitoring Plan shall detail when and where monitoring will take place. The plan shall include protocols that outline archaeological monitoring best practices, anticipated resource types, and an Unanticipated Discovery Protocol. The Archaeological Monitoring Plan shall, at a minimum, detail the role and responsibility of the monitor, the monitoring methods to be used, the communication protocol, and the procedures to be followed in case of inadvertent discoveries. The Unanticipated Discovery Protocol shall describe steps

[41] U.S. Department of the Interior. 1983. *Archaeology and Historic Preservation; Secretary of the Interior's Standards and Guidelines.* Available: https://www.nps.gov/subjects/historicpreservation/upload/standards-guidelines-archeology-historic-preservation.pdf.

to follow if unanticipated archaeological discoveries are made during Project work and identify a chain of contact, including, at a minimum, the following steps: halting construction, evaluating the find, and implementing appropriate mitigation measures. The Archaeological Monitoring Plan shall be submitted for review and approval by the City prior to the issuance of any grading or other permit that would allow ground disturbance on the Project site.

CUL-2.2: Conduct Cultural Resource Sensitivity Training Prior to Project-Related Ground Disturbance. Prior to any Project-related ground disturbance, the Project Sponsor shall ensure that all construction workers who directly oversee excavation or operate ground-disturbing vehicles receive training, which shall be overseen by a qualified professional archaeologist who is experienced in teaching non-specialists, to ensure that workers recognize archaeological artifacts and deposits, as well as tribal cultural resources, in the event that any are discovered during construction. Construction personnel directly overseeing excavation, or operating ground-disturbing vehicles, shall be required to participate in this preconstruction training.

CUL-2.3: Stop Work if Archaeological Deposits Are Encountered during Ground-Disturbing Activities. If archaeological deposits are encountered during Project-related ground disturbance, work in the area (i.e., within a 100-foot radius) shall stop immediately. The onsite qualified archaeologist shall assess the find and determine the path forward. Archaeological deposits include, but are not limited to, flaked stone or ground stone, midden and shell deposits, historic-era refuse, and/or structure foundations.

If any human remains are discovered during ground-disturbing activities, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie human remains. The remains would be treated in accordance with existing State laws, including PRC Section 5097.98 and Health and Safety Code Section 7050.5.

Operation

Archaeological deposits would not be encountered during Project operations, nor would Project operations result in an adverse change in a buried archaeological deposit that could qualify as a historical resource and/or unique archaeological resource. Any impact on archaeological resources would occur during Project construction, as discussed above. Thus, ***no impact*** related to buried archaeological deposits could result from operation of the Project.

Impact CUL-3. Human Remains. The Project could disturb human remains, including those interred outside of dedicated cemeteries, but such impacts would be adequately addressed through mitigation. (Less than Significant with Mitigation)

Construction

The results of the NWIC records search conducted in 2019 and 2022 and the historic-period maps and aerial photographs indicate that no known previously recorded dedicated cemeteries or cultural resources that include human remains are located within or adjacent to the Project site. However, given the sensitivity for buried pre-European contact archaeological deposits, as well as requirements for below-grade excavations up to 16 feet for parking, service access to buildings, foundations, and utilities, the potential exists for encountering unknown remains associated with archaeological deposits. Should

human remains be unearthed during Project construction, they would be treated in accordance with existing State laws, including PRC Section 5097.98 and Health and Safety Code Section 7050.5. With enforcement of State laws and implementation of Mitigation Measures CUL-2.1, CUL-2.2, and CUL-2.3, Project impacts related to a disturbance of human remains would be ***less than significant with mitigation***.

Operation

Human remains would not be encountered during Project operations, nor would Project operations disturb human remains. Any impact on human remains would occur during Project construction, as discussed above. Thus, ***no impact*** related to human remains could result from operation of the Project.

Cumulative Impacts

This section evaluates cumulative impacts on cultural resources. The geographic context for the analysis of cumulative impacts associated with cultural resources is the Project area and the immediate vicinity. Cumulative impacts are addressed only for those thresholds that would result in a Project-related impact, whether it be less than significant, significant, or significant and unavoidable. If the Project would result in no impact with respect to a particular threshold, it would not contribute, by definition, to a cumulative impact. Therefore, no cumulative analysis would be required.

The Project would not affect historic buildings or structures. Thus, the topic is not analyzed for cumulative historic impacts. This cumulative analysis examines the effects of the Project in the relevant geographic area in combination with other past, current projects, and probable future projects as well as projected future growth.

Impacts C-CUL-1: Cumulative Impacts on Archaeological Resources and Human Remains. The Project, in combination with other foreseeable development in the vicinity, could result in impacts on unknown archaeological resources and human remains, but such impacts would be adequately addressed through mitigation. (Less than Significant with Mitigation)

Construction

Urban development that has occurred over the past several decades in the vicinity of the Project site has resulted in the demolition or alteration of archaeological resources that may qualify as either historical resources or unique archaeological resources under CEQA, including human remains. It is reasonable to assume that present and future development will continue to result in impacts on these resources by disturbing native soils in archaeologically sensitive areas. Federal, State, and local laws protect archaeological resources and human remains in most instances. Even so, it is not always feasible to protect archaeological resources and human remains, particularly when preservation in place could prevent implementation of certain projects. For this reason, the cumulative effects of development in the region on archaeological resources and human remains are considered significant.

Because the Project site is situated in an archaeologically sensitive area, the possibility exists of encountering unknown archaeological resources during ground-disturbing activities associated with Project construction. The Project could contribute to a cumulative loss of archaeological resources and disturbance of human remains. Therefore, the Project's cumulative impact prior to the application of mitigation measures could be considerable. However, in addition to adopted policies and existing regulations to protect cultural resources and human remains, the Project would be subject to Mitigation

Measures CUL-2.1, CUL-2.2 and CUL-2.3, which call for development and implementation of a monitoring plan, worker awareness training, and requirements to stop work if archaeological deposits are encountered during ground-disturbing activities. Compliance with these mitigation measures would reduce the Project's contribution to a cumulative impact to less than cumulatively considerable, resulting in a cumulative impact that would be ***less than-significant with mitigation***.

Operation

Cumulative impacts on archaeological resources and human remains would not occur during operation of cumulative projects or the Project. Any impact on archaeological resources or human remains would occur during construction, as discussed above. Thus, ***no impact*** related to buried archaeological deposits or human remains could result from operation under cumulative conditions.

3.8 Biological Resources

This section describes the existing conditions and regulatory setting for biological resources in and around the Mission Point Project (Project) site and evaluates the potential for impacts on biological resources as a result of development of the Project. The information in this section is based on site visits from May 31 and July 25, 2019, and August 17, 2022, as well as a review of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB)[1], U.S. Fish and Wildlife Service (USFWS)[2] Information for Planning and Consultation (IPaC), and California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants (Online Inventory).[3] The purpose of the May 31 and July 25, 2019, site visits was to conduct a burrowing owl (*Athene cunicularia*) habitat assessment to determine if the Project site has the potential to support nesting burrowing owls, collect qualitative information regarding existing vegetation and wildlife resources on or adjacent to the Project site, and evaluate the site's potential to support special-status plant and/or wildlife species, respectively. The purpose of the August 17, 2022, site visit was to reassess the site with respect to burrowing owl habitat, including surveying for ground squirrel burrows and burrowing owl individuals, given the majority of the site is currently vacant and more than 3 years had passed since the habitat assessment was conducted in 2019. The results of these surveys were considered in the evaluation that follows, as were existing data and information regarding the Project site and surrounding environments. In addition, an arborist report was prepared for the Project site by SavATree Consulting Group in 2023, as included in Appendix 3.8.

Comments pertaining to biological resources were received in response to the Notice of Preparation (NOP) (Appendix 1). One anonymous comment concerned the potential for the Project to affect a channelized portion of Calabazas Creek that flows south to north approximately 500 feet (0.1 mile) west of the Project site. That issue has been addressed in this section, as appropriate.

Existing Conditions

Regulatory Setting

Federal

Clean Water Act

The Clean Water Act (CWA) is the primary federal law for protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. As such, the CWA empowers the U.S. Environmental Protection Agency (EPA) to set national water quality standards and effluent limitations. It also establishes permit review mechanisms to enforce the standards and limitations. Most CWA provisions are at least indirectly relevant to the management and protection of biological resources because of the link

[1] California Natural Diversity Database. 2022. *RareFind 5*. California Department of Fish and Wildlife (version 5.2.14). Biogeographic Information and Observation System (BIOS) (version 5.108.157). Last updated in BIOS on October 31, 2022. Available: https://apps.wildlife.ca.gov/bios/?al=ds85. Accessed: November 7, 2022.

[2] U.S. Fish and Wildlife Service. 2022. *IPaC Species List.* Available: https://ecos.fws.gov/ipac/. Accessed: November 15, 202.

[3] California Native Plant Society. 2022. *Rare Plant Inventory* (online edition, v9-01 1.5). Rare Plant Program. Plants found in Milpitas U.S. Geological Survey 7.5-minute quadrangle. Available: https://www.rareplants.cnps.org. Accessed: November 7, 2022.

between water quality and ecosystem health. The portions that are most directly relevant to biological resources management are contained in Section 404, which regulates the discharge of dredged and fill materials into waters of the United States, which has been defined to include certain wetlands. Section 404 requires a project's proponents to obtain a permit from the U.S. Army Corps of Engineers (USACE) for all discharges of dredged or fill material into waters of the United States, including streams, ponds, and certain wetlands, before proceeding with a proposed activity.

Endangered Species Act

The Endangered Species Act (ESA), enacted in 1973, protects fish and wildlife species (and their habitats) that have been identified by USFWS or the National Marine Fisheries Service (NMFS) as threatened or endangered. Endangered refers to species, subspecies, or distinct population segments in danger of extinction through all or a significant portion of their range; threatened refers to those that are likely to become endangered in the near future. USFWS and NMFS administer the ESA. In general, NMFS is responsible for protection of ESA-listed marine species and anadromous fish species, while other listed species are under USFWS jurisdiction. The ESA prohibits the "take" of endangered and threatened species. As defined under the ESA, "take" means to "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any such conduct" and has been interpreted by regulation to include significant habitat modification or degradation.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 United States Code [USC] 703) enacts the provisions of treaties between the United States, Great Britain, Mexico, Japan, and the former Soviet Union and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs (16 USC 703, 50, Code of Federal Regulations [CFR] 21, 50 CFR 10). *Take* is defined more narrowly under the MBTA than under the ESA and includes only the death or injury of individuals of a migratory bird species or its eggs. As such, take under the MBTA does not include the concepts of harm and harassment, as defined under the ESA. The MBTA defines migratory birds broadly; all birds native to North America are considered migratory birds under the MBTA. USFWS is responsible for overseeing compliance with the MBTA, and the U.S. Department of Agriculture's Animal Damage Control Officer makes recommendations on related animal protection issues.

State

California Endangered Species Act

The California Endangered Species Act (CESA) protects wildlife and plants that have been listed as endangered or threatened under the act by the California Fish and Game Commission. CDFW administers CESA, which prohibits all persons from taking species that are State of California (State) listed as endangered or threatened, except under certain circumstances. The CESA definition of take is any action or attempt to "hunt, pursue, catch, capture, or kill." California Fish and Game Code Section 2081 provides a means by which agencies or individuals may obtain authorization for incidental take of State-listed species and species that have been designated as fully protected under California Fish and Game Code Section 3511 (fully protected birds), Section 4700 (fully protected mammals), 5050 (fully protected reptiles and amphibians), and 5515 (fully protected fish). Take must be incidental to, not the purpose of, an otherwise lawful activity.

California Fish and Game Code

Section 3503 of the California Fish and Game Code makes it "unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Section 3503.5 of the California Fish and Game Code prohibits the take, possession, or destruction of any birds of prey or their nests or eggs, "except as otherwise provided by this code or any regulation adopted pursuant thereto."

Section 3513 states that federal authorization of take or possession is no longer lawful under the California Fish and Game Code if the federal rules or regulations are inconsistent with State law. The California Migratory Bird Protection Act (MBPA) was passed in September 2019 to provide a level of protection for migratory birds in California consistent with the federal MBTA prior to the 2017 rule change, which limited the protection of migratory birds under the federal MBTA to purposeful actions (i.e., directly and knowingly removing a nest to construct a project, hunt, or poach). Thus, under the MBPA, protection for migratory birds in California is consistent with the rules and regulations adopted by the U.S. Secretary of the Interior under the federal MBTA before January 1, 2017, or those adopted subsequent to that date as long as they are consistent with the California Fish and Game Code. The MBPA reverts to existing provisions of the federal MBTA on January 20, 2025.Sections 3511, 4700, 5050, and 5515 address fully protected species. Prior to the passage of CESA, the "fully protected" classification was the State's initial effort to identify and provide additional protection for animals that were rare or facing possible extinction.

Subsequently, many fully protected species have been listed under the State and/or federal ESA. However, other fully protected species are still not regulated under the CESA, including golden eagle (*Aquila chrysaetos*), white-tailed kite (*Elanus leucurus*), trumpeter swan (*Cygnus buccinator*), northern elephant seal (*Mirounga angustirostris*), and ringtail (*Bassariscus astutus*). Senate Bill (SB) 147, which took effect on July 10, 2023, amends Sections 395, 3511, 4700, 5050, and 5515 and adds Section 2081.15 to the California Fish and Game Code. Unless a project is eligible for a take authorization permit pursuant to Section 2081.35, fully protected species may not be taken or possessed at any time, and no licenses or permits may be issued for their take, except for collecting the species for necessary scientific research or relocation of the species for the protection of livestock. Recent take provisions added under SB 147 do not apply to the Project because the Project does not fall within the project categories that would make it eligible for a take authorization permit. Nesting birds, including raptors, are protected by California Fish and Game Code Section 3503, which states that "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." In addition, under California Fish and Game Code Section 3503.5, "it is unlawful to take, possess, or destroy any birds in the orders *Falconiformes* or *Strigiformes* (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird, except as otherwise provided by this code or any regulation adopted pursuant thereto." Passerines and non-passerine land birds are further protected under the federal MBTA. As such, the CDFW typically recommends surveys for nesting birds that could be directly (i.e., by actual removal of trees/vegetation) or indirectly (i.e., by noise) affected by Project-related activities. Disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW.

Section 4150 states "all mammals occurring naturally in California that are not game mammals, fully protected mammals, or fur-bearing mammals are nongame mammals. Nongame mammals or parts thereof may not be taken or possessed, except as provided in this code or in accordance with regulations

adopted by the commission." The non-game mammals that may be taken or possessed are primarily those that cause crop damage.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act provides a mechanism for protecting the quality of California's waters through the State Water Resources Control Board (State Water Board) and the nine Regional Water Quality Control Boards (Regional Water Boards), which oversee implementation of the act. The State Water Board and the Regional Water Boards have taken the position that the act and basin plans developed pursuant to the act provide independent authority to regulate the discharge of fill material to wetlands outside the jurisdiction of USACE.

California Native Plant Protection Act

The California Native Plant Protection Act (CNPPA), enacted in 1977, prohibits the import of rare and endangered plants into California, the take of rare and endangered plants, and the sale of rare and endangered plants. (Note: The threatened category replaced the rare category when CESA was enacted in 1984.) CESA defers to the CNPPA, which ensures that State-listed plant species are protected when State agencies are involved in projects subject to the California Environmental Quality Act (CEQA).

Regional

Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan

In 2013, the County of Santa Clara (County), Santa Clara Valley Transportation Authority, Santa Clara Valley Water District, and the Cities of Gilroy, Morgan Hill, and San José, collectively referred to as the "Local Partners," finalized the Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP). The HCP/NCCP encompasses all of the Llagas/Uvas/Pajaro watersheds within Santa Clara County; all of the Coyote Creek watershed, except for the Baylands; a large portion of the Guadalupe watershed; and small areas outside of these watersheds. The HCP/NCCP promotes the protection and recovery of covered species while accommodating planned public and private development, infrastructure, and maintenance activities in accordance with applicable laws. The HCP/NCCP was developed in association with USFWS and CDFW and in consultation with a stakeholder group and the general public. The HCP/NCCP's goal is to protect and enhance ecological diversity in more than 500,000 acres of Santa Clara County. To this end, the HCP/NCCP describes how to avoid, minimize, and mitigate impacts on endangered and threatened species, thereby addressing the permitting requirements relevant to these species for activities conducted in the HCP/NCCP area.

Although the Project site is not within the regulatory boundary of the HCP/NCCP,[4] it is approximately 1.5 miles west of its boundaries. The Project site is within the Expanded Study Area for Burrowing Owl Conservation, a large region referenced in the HCP/NCCP where burrowing owl conservation activities are expected to occur between 2013 and 2063. The City of Santa Clara (City) is not a member jurisdiction of the HCP/NCCP and, therefore, not subject to obligations imposed upon member agencies.

[4] Santa Clara Valley Habitat Agency. 2012. *Final Santa Clara Valley Habitat Plan*. August. Prepared for the City of San José, City of Morgan Hill, City of Gilroy, Santa Clara Valley Water District, Santa Clara County, and Santa Clara Valley Transportation Authority. Available: http://scv-habitatagency.org/178/Final-Habitat-Plan. Prepared by ICF International.

Local

City of Santa Clara 2010–2035 General Plan

The City of Santa Clara 2010–2035 General Plan (General Plan) contains goals and policies in Chapter 5 related to biological resources in the City. General Plan goals and policies relevant to the Project are outlined below.

- **Goal 5.10.1-G1.** The protection of fish, wildlife, and their habitats, including rare and endangered species.
- **Goal 5.10.1-G2.** Conservation and restoration of riparian vegetation and habitat.
    - *Policy 5.3.1-P10.* Provide opportunities for increased landscaping and trees in the community, including requirements for new development to provide street trees and a minimum 2:1 onsite or offsite replacement for trees removed as part of the proposal to help increase the urban forest and minimize the heat island effect.
    - *Policy 5.3.4-P5.* Encourage mixed-use development site planning and design to implement the elements illustrated in Figures 7.3-2 and 7.3-3, including street tree planting along all streets.
    - *Policy 5.3.4-P12.* Prioritize pedestrian-oriented streetscape and building design in mixed-use development, including features such as wider sidewalks, street furniture, specialty planters, signage, public art, street trees, special paving materials, decorative awnings, enhanced entrances, colors, variety of materials and textures, and distinctive building massing and articulation.
    - *Policy 5.8.2-P1.* Require that new and retrofitted roadways implement "Full-Service Streets" standards, including minimal vehicular travel lane widths, pedestrian amenities, adequate sidewalks, street trees, bicycle facilities, transit facilities, lighting, and signage, where feasible.
    - *Policy 5.8.2-P3.* Encourage undergrounding of utilities and utility equipment within the public right-of-way and site these facilities to provide opportunities for street trees and adequate sidewalks.
    - *Policy 5.8.4-P5.* Design streets to include detached sidewalks with planting strips or wider attached sidewalks with tree wells to encourage pedestrian use and safety, remove barriers, and increase accessibility.
    - *Policy 5.10.1-P1.* Require environmental review prior to approval of any development with the potential to degrade the habitat of any threatened or endangered species.
    - *Policy 5.10.1-P2.* Work with Santa Clara Valley Water District and require that new development follow the "Guidelines and Standards for Lands near Streams" to protect streams and riparian habitats.
    - *Policy 5.10.1-P4.* Protect all healthy cedars, redwoods, oaks, olives, bay laurel, and pepper trees of any size and all other trees over 36 inches in circumference, measured from 48 inches above grade, on private and public property as well as in the public right-of-way.
    - *Policy 5.10.1-P5.* Encourage enhancement of land adjacent to creeks in order to foster the reinstatement of natural riparian corridors, where possible.
    - *Policy 5.10.1-P11.* Require use of native plants and wildlife-compatible nonnative plants, when feasible, for landscaping on City property.
    - *Policy 5.10.1-P12.* Encourage property owners and landscapers to use native plants and wildlife-compatible nonnative plants, when feasible.
    - *Policy 5.10.4-P7.* Require installation of native and low-water-consumption plant species when landscaping new development and public spaces to reduce water usage.

City of Santa Clara Climate Action Plan

The Santa Clara Climate Action Plan, adopted June 7, 2022, acknowledges that numerous development projects have been approved and constructed that have resulted in the loss of trees since adoption of the 2013 Climate Action Plan. The plan reiterates that all development projects are subject to the City's 2:1 tree replacement requirement for new construction.

City of Santa Clara Tree Protection Code

The City provides tree protection under the City Code (Chapter 12.35) consistent with General Plan Policy 5.10.1-P4, above. Details regarding what trees are protected, including City-designated heritage trees, are provided in Section 12.35.080. Protected trees cannot be removed without first obtaining a permit from the City. Commercial and industrial developments are required to replace protected trees at a ratio of 2:1 (for 24-inch box trees) or 4:1 (for 15-gallon trees). Details regarding protected tree removal replacement ratios are provided in Section 12.35.090. Dead or unsuitable trees are required to be replaced at a 1:1 ratio. A heritage tree inventory is provided in Appendix 8.10 of the General Plan. None of the trees on the Project site are identified in the heritage tree inventory as City-designated heritage trees. The General Plan also requires new development to provide street trees and replace removed protected trees onsite or offsite at a minimum ratio of 2:1.

Environmental Setting

The 48.6-acre Project site is currently occupied by four light industrial buildings that were constructed in the late 1970s on the northern 10-acre portion of the site; a paved surface parking lot with approximately 5,081 parking spaces is located south of Democracy Way. The primary use of the parking lot is temporary event parking for Levi's Stadium, which uses 3,300 parking spaces. The rest of the parking spaces are used by Amazon as drivers' training grounds. The site is surrounded by low-intensity office and light industrial complexes with ornamental landscaping.

The Project site is relatively flat, with an elevation that ranges from approximately 7 to 15 feet above mean sea level. The Natural Resources Conservation Service has mapped soils on the eastern portion of the site as Urbanland-Hangerone complex and on the western portion as Urbanland-Embarcadero complex. Both soil map units are associated with basin floors and composed of alluvium derived from metamorphic or sedimentary rocks, which occurred at this location prior to urban development. Hangerone soil profiles are composed primarily of clay; Embarcadero soil profiles include silty clay and clay loam. Both are poorly drained.[5]

Because the entire Project site has been modified for human use, it does not support any natural plant communities. Except for parking lot margins, medians, and landscaped areas, which are overgrown with weeds and nonnative grasses and/or planted with ornamental trees or shrubs, the entire site is dominated by buildings and pavement. There are no streams or hydrological features, including wetlands or non-wetland waters of the United States or waters of the State, that would be subject to USACE or Regional Water Board jurisdiction on or adjacent to the Project site; the nearest hydrological feature is Calabazas Creek, located more than 500 feet (0.1 mile) west of the site. The Project site is separated from Calabazas Creek by a row of office buildings west of Patrick Henry Drive. The biological communities on the Project site (i.e., developed/landscaped and ruderal) reflect the disturbed and developed nature of the site. A brief description of each vegetation community on the Project site is provided below.

[5] Natural Resources Conservation Service. 2019. *Custom Soil Resource Report for Santa Clara Area, California, Western Part.* Web Soil Survey. Available: https://websoilsurvey.sc.egov.usda.gov. Accessed: November 7, 2022.

The Project site provides habitat (i.e., "the resources and conditions present in an area that produce occupancy…by a given organism")[6] for common wildlife species that have successfully adapted to high disturbance levels, ornamental vegetation, and abundant food sources (e.g., food waste in trash cans, seeds and flowers produced by ornamental plants), all of which are characteristic of urban landscapes. The wildlife species that are most often associated with the biological communities on the Project site include introduced species such as the European starling (*Sturnus vulgaris*), rock pigeon (*Columba livia*), house mouse (*Mus musculus*), Norway rat (*Rattus norvegicus*), black rat (*Rattus rattus*), and feral and domestic cats (*Felis catus*). Numerous common, native species are also able to utilize these habitats, especially the landscaped areas, including raccoon (*Procyon lotor*), western fence lizard (*Sceloporus occidentalis*), striped skunk (*Mephitis mephitis*), and a variety of birds, such as the American crow (*Corvus brachyrhynchos*), Anna's hummingbird (*Calypte anna*), California towhee (*Melozone crissalis*), house finch (*Haemorhous mexicanus*), lesser goldfinch (*Spinus psaltria*), bushtit (*Psaltriparus minimus*), mourning dove (*Zenaida macroura*), and northern mockingbird (*Mimus polyglottos*), all of which were observed during the site visit on August 17, 2022. These bird species may use the trees or ground vegetation on the site for nesting. The buildings on the Project site may be attractive to other nesting or roosting bird species in the area, such as black phoebe (*Sayornis nigricans*) and Bewick's wren (*Thryomanes bewickii*), which were also observed during the site visit. A number of larger trees on the Project site provide suitable nesting habitat for raptors, such as red-tailed hawk (*Buteo jamaicensis*) and Cooper's hawk (*Accipiter cooperii*). In addition, the trees and vacant structures on the site provide suitable roosting habitat for bats species, including pallid bat (*Antrozous pallidus*). No California ground squirrel (*Otospermophilus beecheyi*) individuals or burrows were observed within the Project site during the 2022 site visit; therefore, burrowing owls are not expected to occur on the Project site because habitat is absent.

Developed/Landscaped

Developed/landscaped areas compose most of the land cover on the Project site, including the office buildings, parking lot, and associated landscaping. Vegetation is highly variable, ranging from nonexistent in paved areas to the ornamental trees and shrubs that have been planted around the buildings and in the parking lot medians. Several pavement cracks in the parking lot contain small amounts of nonnative grasses and ruderal forbs. Shrub species observed around the office buildings include pittosporum (*Pittosporum* sp.) and oleander.

No natural depressions dominated by wetland plants occur onsite, but small amounts of tall flatsedge (*Cyperus eragrostis*) were observed in the pavement cracks in the western portion of the parking lot. In addition, a small arroyo willow (*Salix lasiolepis*) was observed growing near the westernmost office building. Both species are hydrophytes (i.e., grow in or near water) that grow primarily in wetlands and along streams but can also colonize artificial depressions in developed areas.

Currently, 350 trees, composed of 26 species, are planted as ornamental landscaping on the Project site. Chinese elm (*Ulmus parvifolia*), Canary Island pine (*Pinus canariensis*), blackwood acacia (*Acacia melanoxylon*), and Canyon live oak (*Quercus chrysolepsis)* are the most abundant tree species on the Project site. Of the 350 trees surveyed, only 17 are protected trees. The remainder are small volunteers[7] or are dead or dying.[8]

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6 Hall, L. S., P. R. Krausman, and M. L. Morrison. 1997. The Habitat Concept and a Plea for Standard Terminology. *Wildlife Society Bulletin* 25:173–182.

7 A volunteer tree is any tree species that has begun growing despite not having been planted by human hands or cultivated intentionally; it has a trunk diameter of less than 3 inches. Volunteer trees are typically found within the dripline of existing trees or growing in proximity to existing infrastructure, such as fences. These trees are not subject to permit applications.

8 SavATree Consulting Group. 2023. *Existing Condition Assessment*. August 28.

Ruderal

Ruderal land cover is dominated by nonnative plants that thrive in disturbed conditions. Ruderal areas often support many of the same grass species found in annual grassland but are dominated by weedy forbs and/or shrubs and therefore less open than grassland. Ruderal vegetation on the Project site grows on the embankments surrounding the parking lot, in parking lot medians, and under the ornamental trees and shrubs, described under the developed/landscaped land cover type below. Ruderal plant species observed during the site visits are typical of disturbed sites and vacant lots in the San Francisco Bay Area. Dominant grass species include wild oats (*Avena fatua*) and smilograss (*Stipa miliacea* var. *miliacea*). Common nonnative forbs include bristly oxtongue (*Helminthotheca echioides*), black mustard (*Brassica nigra*), common prickly lettuce (*Lactuca serriola*), Italian thistle (*Carduus pycnocephalus*), Russian thistle (*Salsola tragus*), and yellow starthistle (*Centaurea solstitialis*). Coyote brush (*Baccharis pilularis*), a native shrub that grows in disturbed areas, occurs at the western edge of the site on the berm between the parking lot and Patrick Henry Drive. Nonnative ornamental shrubs associated with ruderal areas include xylosma (*Xylosma congestum*) and oleander (*Oleander* sp.).

Special-Status Species

For the purposes of this Draft Environmental Impact Report (Draft EIR), *special-status species* are those with one or more of the following characteristics:

- Species that are listed, proposed for listing, or candidates for possible future listing as threatened or endangered under the federal ESA of 1973, as amended.
- Species that are listed or proposed for listing as threatened or endangered under the CESA of 1984, as amended.
- Plants listed as rare under the California Native Plant Protection Act (California Fish and Game Code Section 1900 et seq.)
- Plants assigned to one of three California Rare Plant Ranks (CRPR) by the CNPS and collaborators:
    - 1B – Rare, threatened, or endangered in California and elsewhere.
    - 2A – Presumed extirpated in California but more common elsewhere.
    - 2B – Rare, threatened, or endangered in California but more common elsewhere.
- Wildlife species that are designated by the CDFW as species of special concern.
- Wildlife species that are designated as fully protected under Sections 3511 (birds), 4700 (mammals), and 5050 (reptiles and amphibians) of the California Fish and Game Code.
- Species that meet the definitions of rare or endangered under CEQA (Section 15380).

Special-status plant and wildlife species documented in the vicinity of the Project site by CNDDB (i.e., occurrences within 5 miles), IPaC, and CNPS (i.e., occurrences within the U.S. Geological Survey Milpitas 7.5-minute topographic quadrangle map) are listed in Tables 3.8-1 and 3.8-2, respectively, at the end of this section. Additional special-status species not listed by CNDDB, IPaC, and CNPS that could occur, based on knowledge of the area and observed habitat conditions at the Project area, were also included in the tables.

Special-Status Plant Species

Based on the results of the CNDDB and CNPS online inventory queries, 15 special-status plant species were identified in the Project region (see Table 3.8-1 at the end of this section). Upon further review of local habitat conditions and the specifics regarding documented CNDDB occurrence records, none of these species are expected to occur on the Project site. The special-status plant species were determined to be absent from the Project site because suitable habitat types are not found on the site, the elevation range on the Project site is outside the species' range; and/or the species are presumed extirpated from the region.

Special-Status Wildlife Species

Based on the results of the CNDDB and IPaC online inventory queries, as well as local species knowledge, 31 special-status animal species were identified in the Project region (see Table 3.8-2 at the end of this section). Upon further review of local habitat conditions and the specifics regarding documented CNDDB occurrence records, 24 of the original 31 special-status wildlife species were deemed to have no potential to occur on the Project site because the site lacks suitable habitat, the site is outside the species' known range, the species are presumed extirpated from the Project region, and/or evidence exists that the species do not occur in the Project vicinity.

Several special-status bird species occur in proximity to the Project site as non-breeding migrants, transients, or foragers, but they are not known on or near the Project site or expected to breed or occur in large numbers. These species are white-tailed kite, Alameda song sparrow (*Melospiza melodia pusillula*), tricolored blackbird (*Agelaius tricolor*), and yellow warbler (*Setophaga petechia*). Although there are a few examples of white-tailed kite nesting and roosting in urban areas, in general, the species is intolerant of noise and human activities and will abandon nesting areas that are subject to high levels of human disturbances. In addition, there is little suitable foraging habitat (e.g., fields with abundant small mammals) for white-tailed kite on the Project site. Alameda song sparrow, tricolored blackbird, and yellow warbler may also occur occasionally in trees or other vegetation on the site itself as a nonbreeding transient, forager, or migrant, but no suitable nesting habitat for these species occurs on the Project site.

Pallid bat, a California species of special concern, may forage over the Project site. Although the Project site does not contain the open, dry, and/or rocky areas typically utilized by this species, pallid bat may occasionally day roost within large trees with suitable exfoliating bark or cavities or vacant structures on the Project site, especially if the structures are undisturbed. However, a large level of bat colony roosting is highly unlikely on the Project site because of intense surrounding urbanization. The nearest documented occurrence of pallid bat is more than 5 miles from the Project site.

No burrowing owl habitat (e.g., ground squirrel burrows) or ground squirrels were observed during the 2022 site visit within or around the Project site; therefore, burrowing owl is not expected to occur on or near the Project site. If burrows or ground squirrels are present adjacent to the Project site, ground squirrels and potentially burrowing owl could move onto the Project site over time. However, this is not expected because the area surrounding the Project site is fully developed, with no ground squirrel burrows or ground squirrel individuals.

Habitats with occurrences of presumed-extant special-status species within 5 miles of the Project site are isolated from the site by heavy urban development and, therefore, would not be affected by the Project. Western snowy plover (*Charadrius alexandrines nivosus*), California Ridgway's rail (*Rallus obsoletus obsoletus*), salt marsh harvest mouse (*Reithrodontomys raviventris*), and salt marsh wandering shrew (*Sorex vagrans halicoetes*) are known to occur in the tidal marsh or salt pond habitat near the town of Alviso, approximately 1 mile north of the Project site.

Environmental Impacts

This section describes the impact analysis related to biological resources for the Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

Thresholds of Significance

The Project would have a significant effect if it would result in any of the conditions listed below.

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service (BIO-1 and C-BIO-1)
- 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 Wildlife or U.S. Fish and Wildlife Service (BIO-2)
- Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means (BIO-3 and C-BIO-2)
- 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 (BIO-4 and C-BIO-3)
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (BIO-5 and C-BIO-4)
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan (BIO-6)

Methods for Analysis

The environmental setting for the Project was established by reviewing available information on the special-status species known to occur near the Project site, as described in the *Special-Status Species* section, above. This review was supplemented with site visits conducted on May 31 and July 25, 2019, and August 17, 2022, to determine which of these species actually occur or whether potential habitat is present on the Project site. This review considered Project activities that would occur to identify actions that could result in significant impacts on biological resources, as defined by the above thresholds.

Topics Found to Have No Impact

Loss or Damage to Special-Status Plants (BIO-1). No special-status plant species have been documented on the Project site, and natural vegetation communities that would support such species are absent. Therefore, there would be ***no impact*** on special-status plant species resulting from implementation of the Project.

Loss or Damage to Special-Status Species (BIO-1). No special-status species, other than nesting birds and bats, have been documented on the Project site, and hydrological features that would support such species are absent. Therefore, there would be ***no impact*** on special-status species, other than nesting birds and bats, resulting from implementation of the Project.

Loss or Degradation of Riparian Habitat or Sensitive Natural Communities (BIO-2). There are no riparian habitats or sensitive natural plant communities on the Project site. Riparian vegetation grows along Calabazas Creek, approximately 500 feet (0.1 mile) west of the site, but the Project would not result in any disturbance of this habitat. The CNDDB identifies one sensitive natural community within 5 miles of the Project site: northern coastal salt marsh. This community is not present on or adjacent to the Project site; the closest occurrence is along the tidally influenced portion of San Tomas Aquino Creek, approximately 1.3 miles north of the site; this would not be affected by Project activities. In addition, in accordance with General Plan Policy 5.10.1-P2, the Project Sponsor has coordinated the preliminary Project plan with the Santa Clara Valley Water District and will continue to coordinate as the plan evolves. As required, the Project Sponsor will follow the guidelines and standards for lands near streams to protect them as well as riparian habitats. Therefore, there would be ***no impact*** on riparian habitat or sensitive natural communities resulting from implementation of the Project.

Interfere with Movement of Native Resident or Migratory Fish Species (BIO-4). There are no hydrological features onsite; the nearest hydrological feature is Calabazas Creek, located more than 500 feet (0.1 mile) west of the site. In addition, in accordance with General Plan Policy 5.10.1-P2, the Project Sponsor will follow the guidelines and standards for lands near streams to protect them as well as riparian habitats. Therefore, the Project would have ***no impact*** on the movement of fish species.

Interfere with Wildlife Corridors (BIO-4). For the purposes of this EIR, a wildlife corridor is defined as "any space, usually linear in shape, that improves the ability of organisms to move among patches of their habitat."[9] Most wildlife corridors analyzed within the context of land use planning, including those in this EIR, are moderate in scale and used to facilitate regional wildlife movement among habitat patches and through human-dominated landscapes. There are no known established wildlife corridors on or directly adjacent to the Project site. Common urban-adapted wildlife species, including migratory birds, that currently move through the Project site would still be able to do so after Project construction. Most urbanized portions of Santa Clara County preclude dispersal and movement by terrestrial wildlife, except for creeks or rivers (e.g., Guadalupe River), unobstructed ridgelines, and the shoreline of San Francisco Bay. The nearest wildlife corridor is located at Calabazas Creek, 500 feet (0.1 mile) west of the Project site. Wildlife species that currently move in and along the creek would still be able to do so during and after Project construction. Therefore, the Project would have ***no impact*** on wildlife corridors.

Conflict with a Habitat Conservation Plan or Natural Community Conservation Plan (BIO-6). The Project site is outside of the Santa Clara Valley HCP/NCCP permit area and not a covered activity, as defined by the plan. None of the species covered by the HCP/NCCP (including burrowing owl) are expected to occur on the Project site. Sites of importance to the HCP/NCCP's burrowing owl conservation strategy (i.e., nesting colonies and potential expansion habitat) are in the North San José/Baylands region, located north of State Route 237. The existing urban nature of the South San José region provides low-quality, isolated habitat patches and limited opportunities for burrowing owl colonization. Development of the Project site would not preclude successful implementation of the burrowing owl conservation strategy. Therefore, the Project would not conflict with the policies in the HCP/NCCP, and ***no impact*** would occur.

[9] Hilty, J. A., W. Z. Lidicker Jr., and A. M. Merenlender. 2006. *Corridor Ecology: The Science and Practice of Linking Landscapes for Biodiversity Conservation*. Washington, D.C.: Island Press.

Impacts and Mitigation Measures

Impact BIO-1: Special-Status Species—Nesting Birds and Bats. With implementation of mitigation, the Project would not have a substantial adverse effect on nesting birds or their nests or on bats. (Less than Significant with Mitigation)

Construction

Common native bird species not identified as candidate, sensitive, or special-status species by USFWS or CDFW are protected by both State (California Fish and Game Code Sections 3503 and 3513) and federal (MBTA) laws. Common bats species are protected by State (California Fish and Game Code Section 4150) law. Pallid bat has been a special-status species since its designation by CDFW as a species of special concern.

If the Project is implemented during the nesting season for birds (February 1 through August 31), construction activities could result in the direct mortality of adult or young birds, the destruction of active nests, and/or disturbance of nesting adults, causing nest abandonment and/or loss of reproductive effort. Any disturbance of nesting birds that results in the abandonment of active nests or the loss of active nests through vegetation or building removal would be considered a ***significant*** impact. In addition, construction activities could result in the direct mortality of roosting bats, including pallid bat, during tree and building removal, which would also be considered a ***significant*** impact.

MITIGATION MEASURES. Implementation of Mitigation Measure BIO-4.1, described below under Impact BIO-4, would reduce potential impacts on nesting migratory birds to ***less than significant with mitigation***. Implementation of Mitigation Measure BIO-1.1 would reduce potential Project impacts on bats, including pallid bat, to ***less than significant with mitigation***.

BIO-1.1: *Protect Roosting Bats*. To avoid impacts on roosting bats that may utilize trees and/or vacant buildings in the Project area for day roosting, the Project Sponsor shall retain a qualified wildlife biologist to conduct a survey for roosting bats no sooner than 14 days prior to the start of demolition of any vacant buildings with ingress and egress points, as determined by a qualified wildlife biologist, that could be used by bats or the removal of suitable roosting vegetation (i.e., trees) for bats. If building demolition or vegetation removal efforts do not begin within the 14 days following the survey for roosting bats, another survey shall be required. If roosting bats are detected, the biologist shall enact a 150-foot (minimum) no-work buffer from the perimeter of the area the bats are thought to be occupying and confer with CDFW to determine potential roost protection or roost eviction practices, such as installing one-way exclusion devices or using lights to deter roosting. After conferring with CDFW, the protective buffer may be adjusted, based on specific roost needs. Once bats have been protected by a buffer, construction may resume outside the buffered area. The buffer may be removed and construction may resume inside the buffered area once the bats have been safely evicted from roosting sites (as approved by CDFW), thereby avoiding take, as defined by CESA and the California Fish and Game Code.

Operation

Impacts during operations would be ***less than significant*** because nesting and roosting habitat (i.e., structures, planted trees, additional ornamental vegetation) would be present, and birds and bats would become acclimated to operational noise when choosing nesting or roosting sites or when birds are building nests.

Impact BIO-3: State or Federally Protected Wetlands. The Project would not result in substantial adverse effects on State or federally protected wetlands through direct removal, filling, hydrological interruption, or other means. (Less than Significant)

Construction and Operation

There are no State or federally protected wetlands, as defined by Section 404 of the CWA, on the Project site. Although no direct impacts would occur, development on the Project site has the potential to cause indirect impacts on nearby wetlands or water quality within those wetlands (e.g., Calabazas Creek), given the site's runoff patterns.

Construction projects in California that disturb 1 acre of land or more must comply with State requirements to control the discharge of stormwater pollutants under the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) (Water Board Order No. 2009-0009-DWQ). A Stormwater Pollution Prevention Plan (SWPPP) must be developed and maintained during the Project, along with best management practices (BMPs) to protect water quality until the site is stabilized. Commonly practiced BMPs may consist of a wide variety of measures implemented to reduce pollutants in stormwater and other nonpoint-source runoff. Also, projects in Santa Clara County must comply with the Regional Water Board, Bay Region, Municipal Regional Stormwater NPDES Permit (MRP) (Water Board Order No. R2-2015-0049). The MRP requires all projects to implement BMPs and incorporate low-impact development (LID) practices into their design to prevent stormwater runoff pollution, promote infiltration, and slow the volume of water coming from a site after construction has been completed. In order to meet these permit and policy requirements, projects must incorporate impervious surfaces, tree planters, grassy swales, bioretention and/or detention basins, and other features, some of which are included in the Project plans. These permits and measures are discussed in more detail in Section 3.10 *Hydrology and Water Quality*. Compliance with the SWPPP during construction, as well as post-construction measures and design features required by the MRP, would reduce the Project's potential impact on Calabazas Creek to a ***less-than significant*** level.

Impact BIO-4: Impede Use of Native Wildlife Nursery Sites or Interfere with Movement of Native Migratory Wildlife Species. With implementation of mitigation, the Project would not interfere substantially with the movement of birds or with their active nests. (Less than Significant with Mitigation).

Nesting Birds

Construction

Currently, there are approximately 350 ornamental and landscaping trees on the Project site and four buildings, all of which are planned for removal. Impacts on native migratory birds, including tree-nesting raptors, could involve direct impacts from the removal of nesting trees or shrubs, or other nesting substrate (e.g., buildings), as well as indirect impacts from increases in noise and human activity near nesting habitat. An increase in noise and human activity could reduce the quality of that habitat and ultimately change the behavior of nesting birds, resulting in nest abandonment. Construction activities have the potential to produce noise levels that would be higher than those that currently exist in the Project area. Therefore, impacts on bird nesting sites from construction noise, as well as impacts from eliminating bird nesting sites during construction, are considered ***significant*** because the Project site would still contain some nesting habitat in the form of trees, buildings, or structures, along with stationary construction equipment, before or during their removal.

Operation

Project operations also have the potential to produce noise levels that would be higher than those that currently exist in the Project area. However, impacts during operations would be ***less than significant*** because nesting habitat (i.e., structures, planted trees, additional ornamental vegetation) would be present and birds would become acclimated to operational noise when choosing nesting sites and during nest building.

Bird Collisions

Construction and Operation

The current height of the buildings on the Project site is 18 feet (approximately one story). The Project would construct podium buildings that would be up to 108 feet tall (up to eight stories) and 85 feet tall (up to seven stories) for office and residential uses, respectively; tower buildings would be up to 153 feet tall (or 11 stories) and 202 feet tall (up to 20 stories) for office and residential uses, respectively. Resident and migratory birds could experience injury or death from collisions with buildings due to the use of transparent or reflective glass on the buildings or improper lighting at the Project site, which could misdirect or confuse birds during flight. Glass windows as well as building façades can result in injury or death for birds that collide with these surfaces. Collisions occur because the reflected sky or vegetation does not appear different from the surroundings. When attempting to fly or reach vegetation, a bird sees what appears to be an unobstructed flight path (e.g., the glass corner of a building). Impacts on the movement of birds due to collisions with buildings are considered ***significant***. These impacts could occur during the phased construction schedule, including construction of later phases of the Project, or during operation of the Project.

The area of a building that poses the greatest risk for avian collisions is the lower portion because the majority of daily routine activities (e.g., foraging, roosting, nesting) occur relatively close to the ground. The landscape vegetation that provides habitat for these activities is often adjacent to reflective or transparent glass façades, which are undetectable by birds. The height of this zone has been described differently by different organizations. The New York Audubon Society defines it as "ground level" and the "bottom few stories."[10] The American Bird Conservancy defines it as the lower 40 feet of a building but then also suggests that a bird-safe design is necessary above 40 feet.[11] The City of San Francisco definition covers the area from ground level to a height of 60 feet.[12] The 60-foot height for the primary bird collision zone has been adopted by other Bay Area municipalities (e.g., City of Oakland and City of Mountain View [2017]) as a local standard for bird-safe building designs. As reported in the San Francisco Planning Department *Standards for Bird Safe Buildings* (2011), the primary concern within the bird collision zone is any uninterrupted area of glazing 24 square feet or larger. The likelihood of a collision depends on the glazing used, the angle of the glass, and building and landscape configurations. At night, especially in inclement weather during spring and fall bird migrations, birds can be attracted to lighted structures, resulting in collisions, entrapment, excess energy expenditure, or exhaustion. Quantitative analyses of building variables and building context support published recommendations regarding how to mitigate or eliminate avian mortality from glass collisions. The recommendations include minimizing the use of large expanses of glass as well as vegetation in the vicinity of clear and reflective panes.[13]

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[10] Brown H., and S. Caputo. 2007. *Bird-Safe Building Guidelines*. New York, NY: Audubon Society.

[11] Sheppard, C., and G. Phillips. 2015. *Bird-Friendly Building Design*. Second Edition. The Plains, VA: American Bird Conservancy.

[12] San Francisco Planning Department. 2011. *Standards for Bird-Safe Buildings*. Available: https://sfplanning.org/sites/default/files/resources/2019-09/Design%20Guide%20Standards%20for%20Bird%20Safe%20Bldgs_Final.pdf. Accessed: November 18, 2022.

[13] Ibid.

Although many bird species, including migratory birds, would use the vegetation on the Project site and in surrounding areas, the amount of vegetation is limited, consisting almost entirely of non-native trees and shrubs. Non-native vegetation supports fewer of the resources required by native birds compared with native vegetation, and the structural simplicity of the vegetation (i.e., without well-developed ground cover, understory, canopy layers) further limits the resources available to birds.[14] As a result, the number of birds that would inhabit and regularly use the vegetation on the Project site at any given time would be relatively low.

No bird species are expected to occur in large numbers on or immediately adjacent to the Project site. In addition, it is not expected that large numbers of migratory birds would use the Project site as an important flight path and be subject to a high risk of collision with proposed buildings. Although some songbirds that migrate along the Pacific Flyway and travel through the Project vicinity are expected to be attracted to Calabazas Creek, this habitat is not likely to be heavily used by migrating birds. The creek's riparian habitat is narrow and highly fragmented from high-density urban development as well as bridges, road crossings, and channelization.

Buildings that are 500 feet or more in height are obstacles to nighttime avian migration;[15] tall buildings pose a threat to birds while migrating through an area, particularly nocturnal migrants that may not see the buildings. Conversely, some nocturnal migrants may be attracted to the lights on the buildings. Because Project buildings would be no greater than 202 feet in height due to Federal Aviation Administration restrictions, there would be no impact on nighttime migration and a low risk of daytime collisions.

Because of the overall low level of abundance with respect to birds on and immediately adjacent to the Project site, the frequency of bird collisions with buildings is expected to be low. Although some migrating birds could be involved in building collisions, the majority of collisions would involve resident species. The resident species occurring on the Project site and in immediately adjacent areas are all common urban-adapted species that are widespread in urban, suburban, and, for many species, natural land use types throughout the Bay Area. As a result, these species have high regional (i.e., South Bay) populations. The number of individuals that might be affected by collisions with Project buildings would be a very small proportion of the regional population. Although bird collisions cannot be completely avoided, the Project Sponsor would incorporate the City's standard condition of approval for bird safety into the final design of Project buildings to reduce potentially significant impacts related to bird collisions.

MITIGATION MEASURES. Implementation of Mitigation Measures BIO-4.1 and BIO-4.2 would reduce potential Project impacts on nesting migratory birds as well as impacts related to bird collisions to ***less than significant with mitigation.***

BIO-4.1: *Protect Nesting Birds*. To the extent feasible, the Project Sponsor and its contractor shall avoid conducting vegetation removal during the migratory bird season (February 1 through August 31). If Project-related activities must take place during the migratory bird season, the Project Sponsor shall retain a qualified wildlife biologist to conduct a survey for nests of migratory birds. Surveys for nesting migratory birds shall occur within 3 days prior to the commencement of ground disturbance and vegetation removal in areas that will be affected by Project construction activities. Multiple nest survey shall be required if construction is

[14] Klem, Daniel, Jr., Christopher J. Farmer, Nicole Delacretaz, Yigal Gelb, and Peter G. Saenger. 2009. Architectural and Landscape Risk Factors Associated with Bird-Glass Collisions in an Urban Environment. *The Wilson Journal of* Ornithology 121(1):126–134.

[15] Brown H., and S. Caputo. 2007. *Bird-Safe Building Guidelines*. New York, NY: Audubon Society.

phased or when construction work stops for more than 2 weeks at a portion of the site where suitable nesting habitat remains. If construction is ongoing for multiple years, these surveys *shall* be conducted each year.

If an active nest is discovered, a no-disturbance buffer zone around the nest tree or shrub, or, for ground-nesting species, the nest itself, shall be established. The no-disturbance zone shall be marked with flagging or fencing that can be easily identified by the construction crew and shall not affect the nesting bird or attract predators to the nest location. In general, the minimum nest buffer zone widths shall be as follows: 50 feet (radius) for non-raptor ground-nesting species, 50 feet (radius) for non-raptor shrub- and tree-nesting species, and 300 feet (radius) for raptor species. Buffer widths may be modified, based on discussion with CDFW. Buffers shall remain in place as long as the nest is active or young remain in the area and are dependent on the nest.

BIO-4.2 *Implement Bird-Safe Design Standards into Project Buildings and Lighting Design*. The Project Sponsor, either directly or through its contractor, shall prepare and implement a set of specific standards in the site plans submitted for approval by the City for minimizing hazards to birds. These specific standards shall include the following measures to minimize hazards to birds:

- Reduce large areas of transparent or reflective glass
- Locate water features and other bird habitat away from building exteriors to reduce reflection
- Reduce the visibility of landscaped areas behind glass or eliminate them
- To the extent feasible, take appropriate measures to avoid the use of unnecessary lighting at night, especially during bird migration season (i.e., February–May and August–November), through the installation of motion sensors for lighting, automatic shut-off mechanisms, downward-facing exterior light fixtures, or other effective measures to the extent possible.

Impact BIO-5: Conflicts with Local Policies or Ordinances Protecting Biological Resources. The Project would not result in conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (Less than Significant)

Construction

The City provides tree protection under the City Code (Chapter 12.35). Details regarding which trees are protected are provided in Section 12.35.080 and include:

- Heritage trees in all zoning districts.
- All specimen trees with a diameter of 12 inches or more when measured 54 inches above the natural grade, including the following species on private property:
    - *Aesculus californica* (California buckeye);
    - *Acer macrophyllum* (big leaf maple);
    - *Cedrus deodara* (deodar cedar);
    - *Cedrus atlantica* "Glauca" (blue Atlas cedar);
    - *Cinnamomum camphora* (camphor tree);

- *Platanus racemosa* (western sycamore);
- *Quercus* (native oak tree species), including:
  - *Quercus agrifolia* (coast live oak);
  - *Quercus lobata* (valley oak);
  - *Quercus kelloggii* (black oak);
  - *Quercus douglasii* (blue oak);
  - Quercus wislizeni (interior live oak);
- *Sequoia sempervirens* (coast redwood); and
- *Umbellularia californica* (bay laurel or California bay).

- Approved development trees.
- A private tree that has a trunk with a diameter of 38 inches or more measured at 54 inches above the natural grade.
- A multibranched private tree that has major branches below 54 inches above the natural grade with a diameter of 38 inches or more measured just below the first major trunk fork (Ordinance 2036, Section 2, 12-7-21).

Construction activities associated with the Project would remove 350 trees on the Project site, 17 of which are considered protected trees. No heritage trees, as defined by the City's heritage tree list, are present. Under General Plan Policy 5.3.1-P10, and per City Code Chapter 12.35, all protected trees to be removed must be replaced at a ratio of 2:1 for 24-inch box trees or 4:1 for 15-gallon trees on the Project site or at offsite locations. Dead trees are required to be replaced at a ratio of 1:1.

All trees would be removed. Therefore, the Project Sponsor would be required to plant four 15-gallon trees to replace the existing dead trees and thirteen 24-inch box trees or twenty-six 15-gallon trees, or a combination of the two, to replace the living protected trees. Therefore, the impact would be ***less than significant***.

Operation

The Project would not result in conflicts with any local policies or ordinances protecting biological resources, such as the City's tree protection ordinance, during operation because all replacement trees would be planted during the construction phase of the Project. Therefore, there would be ***no impact***.

Cumulative Impacts

This section evaluates cumulative impacts on biological resources. This cumulative analysis examines the effects of the Project in the relevant geographic area in combination with other current projects and probable future projects. Cumulative impacts are addressed only for those thresholds that have a Project-related impact, whether it be less than significant, significant, or significant and unavoidable. If the Project would result in no impact under a particular threshold, it would not contribute to a cumulative impact, and no analysis would be required. The Project would have no impact on special-status plants or species, other than nesting birds and bats; riparian habitat or sensitive natural communities; the movement of native resident or migratory fish; wildlife corridors; or an HCP/NCCP. Thus, these topics are not analyzed for cumulative impacts.

Impact C-BIO-1: Cumulative Special-Status Species—Nesting Birds and Bats. With implementation of mitigation, the Project, in combination with other foreseeable development in the vicinity, would not have a substantial adverse effect on nesting birds or their nests or on bats. (Less than Significant with Mitigation)

Construction

Because Santa Clara is largely built out and has limited undeveloped land, cumulative projects in the vicinity of the Project site would involve primarily the construction of new buildings on previously developed sites or modifications to existing buildings or infrastructure. Structures and trees provide roosting and nesting habitat for birds and bats, including pallid bat. Cumulative impacts on these biological resources could be significant because reasonably foreseeable projects, including those cumulative projects listed in Table 3-1 and Figure 3-1, could affect or remove additional structures and trees or erect new structures. However, impacts on nesting birds and bats would be reduced because the cumulative projects would also be subject to the requirements of the wildlife protection laws, including CESA, the MBTA, and the California Fish and Game Code. Environmental review for individual projects would address potential impacts. For the Project, implementation of Mitigation Measures BIO-1.1 and BIO-4.1 would require pre-construction surveys for nesting birds and bats. In addition, the Project would be required to comply with Policy 5.3.1-P10 of the General Plan as well as City Code Chapter 12.35, which requires new development to replace removed protected trees at a 2:1 ratio for 24-inch box trees, 4:1 for 15-gallon trees, or 1:1 for dead trees; therefore, any nesting habitat lost from tree removal would be replaced. Implementation of these mitigation measures and compliance with City policies and codes would ensure that the Project's contribution to cumulative impacts on nesting bird and bat species would not be cumulatively considerable. The impact would be ***less than significant with mitigation.***

Operation

During operation of the cumulative projects listed in Table 3-1 and Figure 3-1, nesting and roosting habitat (i.e., structures, planted trees, additional ornamental vegetation) would be present, and birds and bats would become acclimated to operational noise when choosing nesting or roosting sites or when birds are building nests. Therefore, a significant cumulative impact during operation would not occur. The impact would be ***less than significant***, and no mitigation would be necessary.

Impact C-BIO-2: Cumulative State or Federally Protected Wetlands. The Project, in combination with other foreseeable development in the vicinity, would not result in substantial adverse effects on State or federally protected wetlands through direct removal, filling, hydrological interruption, or other. (Less than Significant)

Construction and Operation

As described above under Impact BIO-1, there are no State or federally protected wetlands, as defined by Section 404 of the CWA, on the Project site. Although no direct impacts would occur, development on the Project site has the potential to result in indirect impacts on nearby wetlands or water quality within those wetlands (e.g., Calabazas Creek), given the site's runoff patterns. It is reasonable to expect that there would be similar indirect impacts on Calabazas Creek from future development in proximity to the creek, including impacts from the cumulative projects listed in Table 3-1 and Figure 3-1. However, all future development in the City would be required to comply with State requirements found in the Construction General Permit if more than 1 acre would be affected as well as requirements of the Regional Water Board, Bay Region, and the MRP. Because the Project would protect water quality through BMPs during construction and until the site is stabilized and after construction by incorporating low-impact

development practices into the design to prevent pollution from stormwater runoff, promote infiltration, and slow the volume of water coming from the Project site, the Project would not contribute to any cumulative impact on State or federally protected wetlands. The cumulative impact would be ***less than significant***.

Impact C-BIO-3: Cumulative Impede Use of Native Wildlife Nursery Sites or Interfere with Movement of Native Migratory Wildlife Species. With implementation of mitigation, the Project, in combination with other foreseeable development in the vicinity, would not interfere substantially with the movement of birds or with their active nests. (Less than Significant with Mitigation)

Nesting Birds

Construction

Currently, there are approximately 350 ornamental and landscaping trees on the Project site and four buildings, all of which are planned for removal. Structures and trees provide roosting and nesting habitat for birds. Cumulative impacts on these biological resources could be significant because reasonably foreseeable projects could affect or remove additional structures and trees and erect new structures. However, impacts on nesting birds would be reduced because cumulative projects would also be subject to the requirements of wildlife protection laws, including the MBTA and California Fish and Game Code, and individual project environmental review would address potential impacts. For Project-specific impacts, Mitigation Measure BIO-4.1 would require pre-construction surveys for nesting birds. In addition, the Project would be required to comply with Policy 5.3.1-P10 of the General Plan as well as City Code Chapter 12.35, which requires new development to replace protected trees to be removed at a 2:1 ratio for 24-inch box trees, 4:1 for 15-gallon trees, or 1:1 for dead trees; therefore, any nesting habitat lost from tree removal would be replaced onsite. Implementation of this mitigation measure and compliance with City policies and codes would ensure that the Project's contribution to cumulative impacts on the use of native wildlife nursery sites would not be cumulatively considerable. The impact would be ***less than significant with mitigation.***

Operation

Operation of the cumulative projects listed in Table 3-1 and Figure 3-1 and the Project have the potential to produce noise levels that would be higher than those that currently exist in the Project area. However, nesting habitat (i.e., structures, planted trees, additional ornamental vegetation) would be present and birds would become acclimated to operational noise when choosing nesting sites and during nest building. Therefore, a significant cumulative impact during operation would not occur. The impact would be *less than significant*, and no mitigation would be necessary.

Bird Collisions

Construction and Operation

The Project would remove the four single-story buildings onsite and construct new buildings that would be up to 202 feet tall (up to 20 stories). Although there is a low level of abundance overall with respect to birds on and immediately adjacent to the Project site and the frequency of bird collisions with buildings is expected to be low, as explained under Impact BIO-4, injury or death involving resident or migratory birds could result from collisions with buildings because of transparent or reflective glass or from improper lighting. Cumulative impacts on these biological resources could be significant because it is reasonable to expect that cumulative projects would erect new buildings or structures that could also

result in injury or death involving resident or migratory birds from collisions with buildings. Although bird collisions cannot be completely avoided, the City's standard condition of approval with respect to bird safety would require the final design of Project buildings to reduce significant impacts related to bird collisions. For the Project, Mitigation Measure BIO-4.1 would require implementation of bird-safe design standards in Project buildings and lighting designs. Implementation of this mitigation measure would ensure that the Project's contribution to cumulative impacts on the movement of native migratory wildlife species would not be cumulatively considerable. The impact would be ***less than significant with mitigation.***

Impact C-BIO-4: Cumulative Conflicts with Local Policies or Ordinances Protecting Biological Resources. The Project, in combination with other foreseeable development in the vicinity, would not result in conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (Less than Significant)

Construction

Individual jurisdictions have different criteria for evaluating the loss of protected resources. The context for an analysis of cumulative impacts from conflicts with local policies or ordinances that protect biological resources is the City. The City's Heritage Tree Policy is the only local policy relevant to cumulative projects that protects biological resources. As described above under Impact BIO-5, Project construction activities would result in the removal of 350 trees. With future development in the City, including those cumulative projects listed in Table 3-1 and Figure 3-1, it is reasonable to expect that there would be an additional loss of protected trees, although it would be speculative to attempt to calculate the exact number or magnitude of this loss. However, all future development in the City would be required to comply with Policy 5.3.1-P10 of the General Plan as well as City Code Chapter 12.35, which requires new development to replace removed trees at a 2:1 ratio for 24-inch box trees, 4:1 for 15-gallon trees, or 1:1 for dead trees. Under this policy, the Project Sponsor would be required to plant four 15-gallon trees to replace the existing dead trees and thirteen 24-inch box trees or twenty-six 15-gallon trees, or a combination of the two, to replace the existing live protected trees. Because the Project would replace trees at a ratio that would be consistent with General Plan policies, it would not contribute to any cumulative impact related to local policies and ordinances. The impact would be ***less than significant***.

Operation

The cumulative projects listed in Table 3-1 and Figure 3-1 would not result in conflicts with any local policies or ordinances protecting biological resources, such as the City's tree protection ordinance, during operation because all replacement trees would be planted during the construction phase of the cumulative projects and the Project. Therefore, a significant cumulative impact during operation would not occur. Thus, there would be ***no impact,*** and no mitigation would be necessary.

Table 3.8-1. Special-Status Plant Species Considered

Species	Status[a] Federal/ State/CNPS	Geographic Distribution	Habitat Requirements	Blooming Period	Potential to Occur on or adjacent to the Project Site[b]
Astragalus tener var. *tener* Alkali milk-vetch	–/–/1B.2	Southern Sacramento Valley, northern San Joaquin Valley, east San Francisco Bay Area.	Grassy flats and vernal pool margins on alkali soils below 200 feet above mean sea level (MSL).	Mar–Jun	None. Suitable habitat is not present.
Atriplex depressa Brittlescale	–/–/1B.2	Alameda, Contra Costa, Colusa, Fresno, Glenn, Kern, Merced, Solano, Stanislaus, Tulare, Yolo Counties.	Alkaline soils, clay, chenopod scrub, meadows and seeps, playas, valley and foothill grasslands, and vernal pools below 1,050 feet above MSL.	Apr–Oct	None. Suitable habitat is not present.
Atriplex minuscula Lesser saltscale	–/–/1B.2	Alameda, Butte, Fresno, Kern, Madera, Stanislaus, Tulare Counties.	Alkaline and sandy soils, chenopod scrub, playas, and valley and foothill grasslands between 50 and 660 feet above MSL.	May–Oct	None. Suitable habitat is not present.
Centromadia parryi ssp. *congdonii* Congdon's tarplant	–/–/1B.2	East San Francisco Bay Area, Salinas Valley, Los Osos Valley.	Annual grassland on lower slopes, flats, and swales, sometimes on alkaline or saline soils, below 700 feet above MSL.	Jun–Nov	None. Suitable habitat is not present.
Chloropyron maritimum ssp. *palustre* [*Cordylanthus maritimus* ssp. *palustris*] Point Reyes bird's-beak	–/–/1B.2	Coastal Northern California from Humboldt to Santa Clara Counties; Oregon	Coastal salt marsh below 35 feet above MSL.	Jun–Oct	None. Suitable habitat is not present. Only CNDDB occurrence within 5 miles considered extirpated.
Chorizanthe robusta var. *robusta* Robust spineflower	E/–/1B.1	Alameda, Monterey, Marin, Santa Clara, Santa Cruz, San Francisco, San Mateo Counties.	Sandy or gravelly, chaparral (maritime), cismontane woodland (openings), coastal dunes, and coastal scrub between 10 and 980 feet above MSL.	Apr–Sep	None. Suitable habitat is not present.

Species	Status[a] Federal/ State/CNPS	Geographic Distribution	Habitat Requirements	Blooming Period	Potential to Occur on or adjacent to the Project Site[b]
Extriplex joaquiniana San Joaquin spearscale	–/–/1B.2	Southern Sacramento Valley, northern San Joaquin Valley, east San Francisco Bay Area.	Alkaline soils in chenopod scrub, meadows and seeps, playas, and valley and foothill grassland below 2,740 feet above MSL.	Apr–Oct	None. Suitable habitat is not present.
Eryngium aristulatum var. *hooveri* Hoover's button-celery	–/–/1B.1	San Benito, San Luis Obispo, and Santa Clara Counties.	Vernal pools.	July	None. Suitable habitat is not present.
Lasthenia conjugens Contra Costa goldfields	E/–/–	Alameda, Contra Costa, Mendocino, Monterey, Marin, Napa, Santa Barbara, Santa Clara, Solano, Sonoma Counties.	Mesic areas, cismontane woodlands, playas (alkaline), valley and foothill grasslands, and vernal pools below 1,540 feet above MSL.	Mar–Jun	None. Suitable habitat is not present.
Malacothamnus arcuatus Arcuate bush mallow	–/–/1B.2	Santa Clara, Santa Cruz, and San Mateo Counties.	Chaparral and cismontane woodland between 49 and 1,160 feet above MSL.	Apr–Sep	None. Suitable habitat is not present.
Malacothamnus hallii Hall's bush-mallow	–/–/1B.2	Contra Costa, Lake, Mendocino, Merced, Santa Clara, San Mateo, Stanislaus Counties.	Chaparral and coastal scrub between 30 and 2,490 feet above MSL.	May–Oct	None. Suitable habitat is not present.
Navarretia prostrata Prostrate vernal pool navarretia	–/–/1B.1	Alameda, Fresno, Los Angeles, Merced, Monterey, Orange, Riverside, San Bernardino, San Benito, Santa Clara, San Diego, San Luis Obispo Counties.	Mesic areas, coastal scrub, meadows and seeps, valley and foothill grasslands (alkaline), and vernal pools between 50 and 3,970 feet above MSL.	Apr–Jul	None. Suitable habitat is not present.
Puccinellia simplex California alkali grass	– /– /1B.2	Alameda, Butte, Contra Costa, Colusa, Fresno, Glenn, Kings, Kern, Lake, Los Angeles, Madera, Merced, Napa, San Bernardino, Santa Clara, Santa Crus, San Luis Obispo, Solano, Stanislaus, Tulare, Yolo Counties.	Vernally mesic alkaline areas in chenopod scrub, meadows, and grasslands (e.g., vernal pools, lake margins, seeps) between 7 and 3,050 feet above MSL.	Mar–May	None. Suitable habitat is not present.

Species	Status[a] Federal/ State/CNPS	Geographic Distribution	Habitat Requirements	Blooming Period	Potential to Occur on or adjacent to the Project Site[b]
Trifolium hydrophilum Saline clover	–/–/1B.2	Sacramento Valley, central western California.	Salt marsh, mesic alkaline areas in grasslands and vernal pools.	Apr–Jun	None. Suitable habitat is not present.
Suaeda californica California seablite	E/–/1B.1	Morro Bay, San Luis Obispo County; historically found in the south San Francisco Bay.	Margins of tidal salt marsh.	Jul–Oct	None. Suitable habitat is not present.

a. Status Explanations

Federal

E = listed as endangered under the federal Endangered Species Act

– = no listing

State

– = no listing

California Native Plant Society

1B = List 1B species: rare, threatened, or endangered in California and elsewhere

0.1 = seriously endangered in California

0.2 = fairly endangered in California

b. Potential Occurrence in and adjacent to the Project Footprint

High: Known occurrence of the species within the study area or CNDDB, or other documents, records occurrences of the species within a 5-mile radius of the study area; suitable habitat is present within the study area

Moderate: CNDDB, or other documents, records occurrences of the species within a 5-mile radius of the study area; poor-quality suitable habitat is present within the study area

Low: CNDDB, or other documents, does not record occurrences of the species within a 5-mile radius of the study area; suitable habitat is present within the study area

None: Species not known to occur in Project vicinity from CNDDB, or other documents, or suitable habitat not present in any condition

Table 3.8-2. Special-Status Wildlife Species Considered

Species	Status[a.] Federal/ State	Geographic Distribution	Habitat Requirements	Potential to Occur on and adjacent to the Project site[b.]
Invertebrates				
Bombus crotchii Crotch's bumblebee	–/CE	Occurs in the Mediterranean region, Pacific Coast, western desert, Great Valley, and adjacent foothills throughout most of southwestern California. Historically common in the Central Valley but now appears to be absent from most of it, especially in the center of its historic range.	Inhabits grasslands and shrublands. Food plants include *Asclepias, Chaenactis, Lupinus, Medicago, Phacelia,* and *Salvia*. Requires suitable nesting sites for colonies, availability of nectar and pollen from floral resources throughout the duration of the colony period (spring, summer, and fall), and suitable overwintering sites for the queens.	None. Suitable habitat is not present.
Bombus occidentalis Western bumble bee	–/CE	Historically occurred throughout the mountains and northern coast of California but now largely confined to high-elevation sites in Northern California and a few sites on the Northern California coast.	Meadows and grasslands with abundant floral resources. Nests underground in squirrel burrows, in mouse nests, and in open west-southwest-facing slopes bordered by trees. Visits a wide variety of wildflowers. Plant genera it is most commonly associated with are *Cirsium, Erigonum, Solidago, "Aster," Ceonothus, Centaurea,* and *Penstemon*. Requires suitable nesting sites for colonies, availability of nectar and pollen from floral resources throughout the duration of the colony period (spring, summer, and fall), and suitable overwintering sites for the queens.	None. Suitable habitat is not present.

Species	Status[a.] Federal/ State	Geographic Distribution	Habitat Requirements	Potential to Occur on and adjacent to the Project site[b.]
Branchinecta conservation Conservancy fairy shrimp	E/–	Disjunct occurrences in Solano, Merced, Tehama, Ventura, Butte, and Glenn Counties.	Large, deep vernal pools in annual grasslands.	None. Suitable habitat is not present.
Danaus plexippus Monarch (California overwintering)	CE/–	Winter roost sites extend along the coast from northern Mendocino County to Baja California.	Roosts in wind-protected tree groves (*Eucalyptus* sp., *Pinus radiata*, and *Hesperocyparis macrocarpa*) with nectar and water sources nearby.	Low. No CNDDB records within 5 miles of Project. Although trees present, suitable roosting habitat (i.e., grove) not present, and site does not have nectar sources nearby. In addition, the site is surrounded by developed land.
Lepidurus packardi Vernal pool tadpole shrimp	E/–	Shasta County south to Merced County.	Vernal pools and ephemeral stock ponds.	None. Suitable habitat is not present.
Fish				
Hypomesus transpacificus Delta smelt	T/T	Primarily in the Sacramento-San Joaquin Estuary but has been found as far upstream as the mouth of the American River on the Sacramento River and Mossdale on the San Joaquin River; range extends downstream to San Pablo Bay.	Occurs in estuary habitat in the Delta where fresh and brackish water mix in the salinity range of 2–7 parts per thousand (Moyle 2002).	None. Suitable habitat is not present.
Oncorhynchus mykiss Central California coast steelhead	T, CH/–	Coastal drainages along the central California coast.	Cold, clear water with clean gravel of appropriate size for spawning. Most spawning occurs in headwater streams. Steelhead migrate to the ocean to feed and grow until sexually mature. Occurs in well-oxygenated, cool riverine habitat with water temperatures from 7.8°C to 18°C. Habitat types are riffles, runs, and pools.	None. Suitable habitat is not present.

Species	Status[a.] Federal/ State	Geographic Distribution	Habitat Requirements	Potential to Occur on and adjacent to the Project site[b.]
Spirinchus thaleichthys Longfin smelt	T/–	Upstream from Rio Vista (on the Sacramento River in the Delta), including the Cache Slough region and Medford Island (on the San Joaquin River in the Delta), through Suisun Bay and Suisun Marsh, San Pablo Bay, San Francisco Bay (main), South San Francisco Bay, the Gulf of the Farallones, Humboldt Bay, Eel River estuary, and local coastal areas.	Occurs in waters below 22°C; can tolerate a large range of salinities. Spends adult life in bays, estuaries, and near-shore coastal areas; migrates into freshwater rivers to spawn. Found mid-water and near the bottom but migrates up and down the water column for prey.	None. Suitable habitat is not present.
Amphibians and Reptiles				
Ambystoma californiense California tiger salamander	T/T	Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet above MSL, and coastal region from Sonoma County south to Santa Barbara County.	Small ponds, lakes, or vernal pools in grasslands and oak woodlands for larvae; rodent burrows, rock crevices, or fallen logs for cover for adults and for summer dormancy.	None. Suitable habitat is not present. Only CNDDB occurrence within 5 miles considered extirpated.
Anniella pulchra Northern California legless lizard	–/SSC	Contra Costa County south through the Coast Ranges, parts of the San Joaquin Valley, western edge of Sierra Nevada, western edge of Mojave Desert, and northern Baja California.	Semi-stabilized sand dunes and areas with sandy soil and high moisture content vegetated with oak, pine-oak woodland, or chaparral—also wooded stream edges and occasionally desert scrub. Dunes with bush lupine and mock heather often indicate suitable conditions. Often found in leaf litter, under rocks, logs, and driftwood.	None. Outside species' known range. Suitable habitat is not present.

Species	Status[a.] Federal/ State	Geographic Distribution	Habitat Requirements	Potential to Occur on and adjacent to the Project site[b.]
Emys marmorata Western pond turtle	–/SSC	Ranges from Pacific coast inland to Sierra Nevada foothills up to elevations of 6,717 feet above MSL. Farther south, ranges from Pacific coast inland to the peninsular ranges. Scattered populations occur in the Mojave River and in some Great Basin drainages (e.g., Truckee River).	Occupies ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and watercress, cattails, water lilies, or other aquatic vegetation in woodlands, grasslands, and open forests. Nests are typically constructed in upland habitat within 0.25 mile of aquatic habitat.	None. Suitable habitat is not present.
Masticophis lateralis euryxanthus Alameda whipsnake	T/T	Restricted to Alameda and Contra Costa Counties; fragmented into five disjunct populations throughout its range.	Valleys, foothills, and low mountains associated with northern coastal scrub or chaparral habitat; requires rock outcrops for cover and foraging.	None. Suitable habitat is not present.
Rana draytonii California red-legged frog	T/SSC	Found along the coast and coastal mountain ranges of California from Mendocino County to San Diego County and in the Sierra Nevada from Butte County to Stanislaus County.	Permanent and semi-permanent aquatic habitats, such as creeks and cold-water ponds, with emergent and submergent vegetation; may aestivate in rodent burrows or cracks during dry periods.	None. Suitable habitat is not present.
Birds				
Agelaius tricolor Tricolored blackbird	–/ST	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grainfields. Habitat must be large enough to support 50 pairs. Probably requires water at or near the nesting colony.	Permanent resident in the Central Valley from Butte County to Kern County. Breeds at scattered coastal locations from Marin County south to San Diego County and at scattered locations in Lake, Sonoma, and Solano Counties. Rare nester in Siskiyou, Modoc, and Lassen Counties.	Low. Suitable nesting habitat is not present. This species may occasionally roost within the Project site but is unexpected because it does not contain the habitat that this species utilizes for foraging and nesting.

Species	Status[a.] Federal/ State	Geographic Distribution	Habitat Requirements	Potential to Occur on and adjacent to the Project site[b.]
Aquila chrysaetos Golden eagle	–/FP	Foothills and mountains throughout California. Uncommon nonbreeding visitor to lowlands such as the Central Valley.	Nest on cliffs and escarpments or in tall trees overlooking open country. Forages in annual grasslands, chaparral, and oak woodlands with plentiful medium- and large-sized mammals	None. Suitable habitat is not present.
Athene cunicularia Burrowing owl	–/SSC	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas; rare along south coast.	Level, open, dry, heavily grazed or low-stature grassland or desert vegetation with available burrows.	None. Known to nest at San José-Santa Clara Regional Wastewater Facility, approximately 2 miles northeast of Project site.[16] Species sometimes occurs in vegetated sidewalk berms and parking lot medians like those in southern half of site but only when ground squirrel burrows or features providing shelter (e.g., riprap, culverts, debris piles) are present. No such features were observed during 2019 or 2022 site visits. Lack of suitable foraging habitat on or adjacent to the site further precludes occurrence.
Buteo swainsoni Swainson's hawk	–/ST	Primary breeding population is in the Central Valley but also breeds in the Klamath Basin, the northeastern plateau, Owens Valley, and rarely in the Antelope Valley. Small numbers (less than five pairs) have recently been documented nesting in the southern Napa Valley, Coyote Valley (Santa Clara County), and Diablo foothills (eastern Contra Costa County).	Open areas such as grassland, shrubland, and agricultural areas. Nests in riparian areas and oak woodlands as well as isolated and roadside trees close to grassland or agricultural foraging habitat.	None. Suitable habitat is not present. Nesting individuals in Santa Clara County occur farther to the south where agricultural foraging habitat is available.

[16] Santa Clara Valley Habitat Agency. 2019. *Santa Clara Valley Habitat Plan, Fourth Annual Report, FY 2017–2018*. March. Available: https://scv-habitatagency.org/328/Annual-Reports. Accessed: November 10, 2022.

Species	Status[a.] Federal/ State	Geographic Distribution	Habitat Requirements	Potential to Occur on and adjacent to the Project site[b.]
Charadrius alexandrinus nivosus Western snowy plover	T/SSC	Population defined as those birds that nest adjacent to or near tidal waters, including all nests along the mainland coast, peninsulas, offshore islands, and adjacent bays and estuaries. Twenty breeding sites are known in California from Del Norte to Diego County.	Coastal beaches above the normal high-tide limit in flat, open areas with sandy or saline substrates; vegetation and driftwood are usually sparse or absent.	None. Suitable habitat is not present.
Coccyzus americanus occidentalis Western yellow-billed cuckoo	T/E	Breeding populations occur along Sacramento River and some tributaries, the South Fork Kern River, and restoration sites near Blythe on the lower Colorado River.	Breeds in large blocks of riparian habitats (particularly woodlands with willow and cottonwood) along the broad bottoms of larger river systems. Dense understory foliage important.	None. Suitable habitat is not present. Only CNDDB occurrence within 5 miles considered extirpated.
Coturnicops noveboracensis Yellow rail	–/SSC	Breeds locally in northeastern interior and winters on the coast and in Suisun Marsh region.	Shallow marshes and wet meadows. In winter, drier freshwater and brackish marshes and dense, deep grass and rice fields.	None. Suitable habitat is not present.
Elanus leucurus White-tailed kite	–/FP	Low elevations west of Sierra Nevada from the head of the Sacramento Valley south, including coastal valleys and foothills to western San Diego County at the Mexico border.	Low-elevation grassland, agricultural, wetland, oak woodland, or savannah habitats with nearby prey sources (i.e., fields with abundant small mammals). Requires dense-topped trees or shrubs for nesting and perching.	Low. This species may occasionally roost and/or forage within the Project site but is unexpected because there is low-quality foraging habitat on the Project site. Although trees are present, nesting is not expected because the species is subject to human disturbance when nesting.
Geothlypis trichas sinuosa Saltmarsh common yellowthroat	–/SSC	Found only in the San Francisco Bay Area in Marin, Napa, Sonoma, Solano, San Francisco, San Mateo, Santa Clara, and Alameda Counties.	Freshwater marshes in summer and salt or brackish marshes in fall and winter; requires tall grasses, tules, and willow thickets for nesting and cover.	Low. Suitable nesting habitat is not present. This species may occasionally roost within the Project site; however, the it does not contain the marsh habitat that this species utilizes for foraging and nesting.

Species	Status[a.] Federal/ State	Geographic Distribution	Habitat Requirements	Potential to Occur on and adjacent to the Project site[b.]
Gymnogyps californianus California condor	E/E	Historically, rugged mountain ranges surrounding the southern San Joaquin Valley; currently, most individuals are in captive populations, but a few birds were recently released in the rugged portions of the Los Padres National Forest.	Requires large blocks of open savanna, grasslands, and foothill chaparral with large trees, cliffs, and snags for roosting and nesting.	None. Suitable habitat is not present.
Laterallus jamaicensis coturniculus California black rail	–/T	Permanent resident in the San Francisco Bay and eastward through the Delta into Sacramento and San Joaquin Counties; small populations in Marin, Santa Cruz, San Luis Obispo, Orange, Riverside, and Imperial Counties.	Tidal salt marshes associated with heavy growth of pickleweed; also occurs in brackish marshes or freshwater marshes at low elevations.	None. Suitable habitat is not present.
Melospiza melodia pusillula Alameda song sparrow	–/SSC	Tidal marshes along the southern portion of San Francisco Bay.	Brackish marshes associated with pickleweed; may nest in tall vegetation or among pickleweed.	Low. Suitable nesting habitat is not present. This species may occasionally roost within the Project site; however, it does not contain the marsh habitat that this species utilizes for foraging and nesting.
Rallus obsoletus obsoletus California Ridgway's rail	E/E	Permanent resident in salt and brackish water marshes within the San Francisco estuary, including San Francisco Bay, San Pablo Bay, and Suisun Marsh.	Prefers emergent wetlands dominated by pickleweed and cordgrass. Requires shallow water and mudflats for foraging, with vegetation for cover during high water.	None. Suitable habitat is not present.
Sternula antillarum browni California least tern	E/E	Found along the Pacific Coast of California from San Francisco to Baja California.	Nests on open beaches kept free of vegetation by natural scouring from tidal action.	None. Suitable habitat is not present.

Species	Status[a.] Federal/ State	Geographic Distribution	Habitat Requirements	Potential to Occur on and adjacent to the Project site[b.]
Mammals				
Antrozous pallidus Pallid bat	–/SSC	Occurs throughout California, except the High Sierra from Shasta to Kern County and the northwest coast, primarily at lower and mid-elevations.	Occurs in a variety of habitats, from desert to coniferous forest. Most closely associated with oak, yellow pine, redwood, and giant sequoia habitats in Northern California and oak woodland, grassland, and desert scrub in Southern California. Relies heavily on trees for roosts.	Low. No CNDDB records within 5 miles of Project. The Project area does not contain the open, dry, and/or rocky areas typically utilized by this species. However, this species may occasionally day roost within large trees with suitable exfoliating bark or cavities or abandoned/vacant structures within the Project area, especially if properties are left undisturbed for a long period of time. Large bat colony roosting is highly unlikely within the Project area due to intense surrounding urbanization.
Reithrodontomys raviventris Salt marsh harvest mouse	E/E, FP	Permanent resident in salt and brackish water marshes within the San Francisco estuary, including San Francisco Bay, San Pablo Bay, and Suisun Marsh.	Saline to brackish salt marsh habitat.	None. Suitable habitat is not present.
Sorex vagrans halicoetes Salt-marsh wandering shrew	–/SSC	Southern arm of San Francisco Bay in San Mateo, Santa Clara, Alameda, and Contra Costa Counties.	Salt marshes from 6 to 9 feet above MSL.	None. Suitable habitat is not present.
Vulpes macrotis mutica San Joaquin kit fox	E/T	Occurs principally in the San Joaquin Valley and adjacent open foothills to the west; recent records from 17 counties, from Kern County north to Contra Costa County.	Saltbush scrub, grassland, oak, savanna, and freshwater scrub.	None. Suitable habitat is not present.

[a] Status Explanations

Federal

E = listed as endangered under the ESA
T = listed as threatened under the ESA
CE = candidate for endangered under ESA
CH = critical habitat designated under the ESA
– = no listing

State

E = listed as endangered under CESA
T = listed as threatened under CESA
CE = candidate for endangered under CESA
FP = fully protected under the California Fish and Game Code
SSC = species of special concern in California
– = no listing

[b] Potential Occurrence in and adjacent to the Project footprint

High: Known occurrence of the species within the study area or CNDDB, or other documents, records occurrences of the species within a 5-mile radius of the study area; suitable habitat is present within the study area

Moderate: CNDDB, or other documents, records occurrences of the species within a 5-mile radius of the study area; poor-quality suitable habitat is present within the study area

Low: CNDDB, or other documents, does not record occurrences of the species within a 5-mile radius of the study area, suitable habitat is present within the study area

None: Species not known to occur in Project vicinity from CNDDB, or other documents, or suitable habitat not present in any condition

3.9 Geology and Soils

This section describes the existing regulatory and environmental conditions related to geology, soils, seismicity, and paleontological resources within and around the Mission Point Project (Project) site and evaluates the potential for impacts with respect to these resources that would result from development of the Project.

A Preliminary Geotechnical Evaluation[1] has been prepared for the Project by Langan, which included a review of the following geotechnical investigations that were previously performed for the Project site:

- *Geotechnical Investigation, Yahoo!, Santa Clara, California*, by Treadwell & Rollo, January 9, 2009
- *Preliminary Geotechnical Investigation, Yahoo Parcels, Tasman Drive and Patrick Henry Drive, Santa Clara, California*, by Cornerstone Earth Group, May 20, 2016

These previous investigations included borings as well as cone penetrometer tests to evaluate subsurface conditions. The results of the testing are discussed below under *Site Topography and Subsurface Conditions*.

The Preliminary Geotechnical Evaluation[2] performed engineering analyses to develop preliminary conclusions and recommendations regarding appropriate foundation types, design parameters, and seismic coefficients for Project development. The evaluation indicates that a final geotechnical investigation that includes additional borings, cone penetrometer tests, and laboratory testing should be performed at the Project site to develop final geotechnical recommendations. Information and conclusions from the Preliminary Geotechnical Evaluation are incorporated into this section. Additional information was obtained from other reports and memoranda as well as government agency documents and websites.

Comments pertaining to geology, soils, seismicity, and paleontological resources were received in response to the Notice of Preparation (NOP) (Appendix 1). One relevant comment requested that a description of the geotechnical reports required for the Project be included in the Environmental Impact Report (EIR), which is provided below under *Methods for Analysis*. No comments relevant to paleontological resources were received.

Existing Conditions

Regulatory Setting

Federal

National Earthquake Hazards Reduction Program

The National Earthquake Hazards Reduction Program (NEHRP) was established by the U.S. Congress when it passed the Earthquake Hazards Reduction Act of 1977, Public Law (PL) 95–124. In establishing NEHRP, Congress recognized that earthquake-related losses could be reduced through improved designs,

[1] Langan. 2022. *Updated Preliminary Geotechnical Evaluation, 3005 Democracy Way, Santa Clara, California*. May 25.
[2] Ibid.

including improved construction methods and practices; land use controls, including redevelopment; prediction techniques and early-warning systems, coordinated emergency preparedness plans, and public education and involvement programs. The four basic NEHRP goals are:

- Develop effective practices and policies for reducing earthquake-related losses and accelerate their implementation
- Improve techniques for reducing the earthquake vulnerabilities of facilities and systems
- Improve earthquake-related hazards identification and risk assessment methods and their use
- Improve the understanding of earthquakes and their effects

Several key federal agencies contribute to earthquake mitigation efforts, including four primary NEHRP agencies:

- National Institute of Standards and Technology of the Department of Commerce
- National Science Foundation
- U.S. Geological Survey of the Department of the Interior
- Federal Emergency Management Agency of the Department of Homeland Security

Implementation of NEHRP priorities is accomplished primarily through original research, publications, and recommendations to assist and guide state, regional, and local agencies in the development of plans and policies that promote safety and emergency planning.

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed into law by the State of California (State) in 1972. It requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones) around the surface traces of known active faults and issue appropriate maps. “Earthquake Fault Zones” were called “Special Studies Zones” prior to January 1, 1994. The Alquist-Priolo maps are distributed to all affected State agencies, counties, and cities for their use in planning and controlling new or renewed construction. Local agencies must regulate most development projects within the zones. The act ensures public safety by prohibiting the siting of most structures for human occupancy across traces of active faults that constitute a potential hazard from surface faulting or fault creep.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (Public Resources Code Sections 2690–2699.6) directs the California Geological Survey (CGS) to identify and map areas that are prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. The purpose of the Seismic Hazards Mapping Act is to minimize the loss of life and property through the identification, evaluation, and mitigation of seismic hazards. As a result, CGS geologists gather existing geological, geophysical, and geotechnical data from numerous sources to produce Seismic Hazard Zone Maps. They integrate and interpret this data regionally to evaluate the severity of the seismic hazards and then designate those areas that are prone to ground shaking, liquefaction, and earthquake-induced landslides as Zones of Required Investigation. Counties and cities are then required to use the Seismic Hazard Zone Maps in their land use planning and building permit processes. The Seismic Hazards Mapping Act requires that site-specific geotechnical investigations be conducted within Zones of Required Investigation to identify and evaluate seismic hazards and

formulate mitigation measures prior to permitting most developments designed for human occupancy. The CGS has completed seismic hazard mapping for the portions of California that are most susceptible to liquefaction, ground shaking, and landslides (primarily the San Francisco Bay Area and the Los Angeles basin).

California Building Code

The 2022 California Building Code, which refers to Part 2 of the California Building Standards Code in Title 24 of the California Code of Regulations, is based on the 2021 International Building Code and is the most current State building code. The 2022 California Building Code covers grading and other geotechnical issues, building specifications, and non-building structures and is renewed on a triennial basis.

The California Building Code requires that a site-specific geotechnical investigation report be prepared by a licensed professional for proposed development of one or more buildings greater than 4,000 gross square feet (gsf) to evaluate geologic and seismic hazards. Buildings less than or equal to 4,000 gsf also require a geologic engineering report, except for one-story, wood-frame, and light steel-frame buildings that are located outside of the Alquist-Priolo Earthquake Fault Zones. The purpose of the geotechnical investigation is to identify seismic and geologic conditions, such as ground shaking, liquefaction, differential settlement, expansive soils, and slope stability, that require mitigation. Based on the conditions of the site, the building code requires specific design parameters to ensure construction of buildings that will resist collapse during an earthquake. These design parameters do not protect buildings from all earthquake shaking hazards. However, they are designed to reduce hazards to a manageable level. Requirements for the geotechnical investigation are presented in Chapter 16, *Structural Design*, and Chapter 18, *Soils and Foundation*, of the 2022 California Building Code.

Local

Santa Clara City Code

Title 15 of the Santa Clara City Code includes the adopted Building and Construction Code. These regulations are based on the California Building Code and include requirements for building foundations, walls, and seismic resistant design. The City of Santa Clara (City) has adopted the current California Building Code, as stated in Section 15.15.010.

Chapter 17.05 of the Santa Clara City Code includes the City's requirements for subdivisions, including preparation of soils reports and a preliminary engineering geology and/or seismic safety report. If a preliminary soils report indicates the presence of critically expansive soils or other soil problems that, if not corrected, could lead to structural defects, the soils report accompanying the final map must contain an investigation of each lot within the subdivision. If the preliminary engineering geology and/or seismic safety report indicates the presence of geologic hazards or seismic hazards that, if not corrected, would lead to structural defects, an engineering geology and/or seismic safety report must accompany the final map and must contain an investigation of each lot within the subdivision.

City of Santa Clara 2010–2035 General Plan

City of Santa Clara 2010–2035 General Plan (General Plan) policies applicable to geology and soils include the following:[3]

- *Policy 5.10.5-P5*: Regulate development, including remodeling or structural rehabilitation, to ensure adequate mitigation of safety hazards, including flooding, seismic erosion, liquefaction, and subsidence dangers.
- *Policy 5.10.5-P6*: Require new development to be designed to meet current safety standards and implement the appropriate building code to reduce risks associated with geologic conditions.
- *Policy 5.10.5-P7*: Implement all recommendations and design solutions identified in project soils reports to reduce potential adverse effects associated with unstable soils or seismic hazards.
- *Policy 5.10.5-P10*: Support efforts by the Santa Clara Valley Water District to reduce subsidence.
- *Policy 5.10.5-P17*: Require that grading and other construction activities comply with the Association of Bay Area Governments *Manual of Standards for Erosion and Sediment Control Measures* and the California Stormwater Quality Association *Stormwater Best Management Practice Handbook for Construction*.

General Plan policies applicable to paleontological resources include the following:[4]

- *Policy 5.6.3-P1*: Require that new development avoid or reduce potential impacts on archaeological, paleontological, and cultural resources.
- *Policy 5.6.3-P2*: Encourage salvage and preservation of scientifically valuable paleontological or archaeological materials.
- *Policy 5.6.3-P4*: Require that a qualified paleontologist/archaeologist monitor all grading and/or excavation if the potential exists to affect archeological or paleontological resources, including sites within 500 feet of natural water courses and in the Old Quad neighborhood.
- *Policy 5.6.3-P5*: In the event that archaeological/paleontological resources are discovered, require that work be suspended until the significance of the find and recommended actions are determined by a qualified archaeologist/paleontologist.

Environmental Setting

Regional Setting

Geology

The Project site is within the Coast Ranges geomorphic province, a relatively geologically young and seismically active region.[5,6] The mountains and valleys associated with the Coast Ranges, which are between 2,000 and 6,000 feet above sea level, trend to the northwest, approximately parallel to the San Andreas fault, from the Oregon border to Southern California. The only major break in the Coast Ranges is the depression containing the Bay Area, which is where the Project site is located.

[3] City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan*. Chapter 5: Goals and Policies. Available: http://santaclaraca.gov/home/showdocument?id=13934. Accessed: October 25, 2022.

[4] Ibid.

[5] California Geological Survey. 2002a. *California Geomorphic Provinces*. Note 36.

[6] Norris, Robert M., and Robert W. Webb. 1976. *Geology of California*. Second edition. J. Wiley & Sons, Inc.

Santa Clara is within the Santa Clara Valley, a broad alluvial plain between the Santa Cruz Mountains to the southwest and west and the Diablo Range to the northeast. The San Andreas fault system exists within the Santa Cruz Mountains, and the Hayward and Calaveras fault systems exist within the Diablo Range.

The Santa Clara Valley, a trough-like depression, is filled with Quaternary alluvial deposits of unconsolidated gravel, sand, silt, and clay that flowing water eroded from adjacent mountain ranges and deposited in the valley. The alluvium comprises interfingered alluvial fans, stream deposits, and terrace deposits. The valley fill alluvium can be divided into two major Quaternary deposits: Holocene (younger than 10,000 years old) and Pleistocene deposits (from 1.8 million to 10,000 years old). The Holocene deposits consist of the most recent sediments deposited along major stream courses as well as bay mud deposits from areas along San Francisco Bay. The Holocene alluvial sediment consists mainly of clay, silt, and sand, occurring in discontinuous lenses. The majority of the subbasin alluvium is from older Pleistocene deposits with unconsolidated and interfingered lenses of clay, silt, sand, and gravel.[7]

Regional Seismicity

The entire Bay Area is within the San Andreas Fault Zone, a complex of active faults. Numerous historic earthquakes have been generated in Northern California on faults within the San Andreas Fault Zone. This level of active seismicity results in a relatively high seismic risk in the Bay Area.

The Project site is vulnerable to seismic activity, given the presence of several active faults in the region. An active fault is one that has experienced displacement within the last 11,700 years[8] and is expected to move again at some point in the future. The major active faults in the region that are closest to the Project site are the Hayward, Monte Vista-Shannon, Calaveras, and San Andreas faults. Table 3.9-1 lists active regional faults, the approximate distance from the Project site, the direction from the Project site, and the mean characteristic moment magnitude.[9]

Table 3.9-1. Regional Faults and Seismicity

Fault Segment	Distance from Project Site (mi)	Direction from Project Site	Mean Characteristic Moment Magnitude
Hayward-Rodgers Creek	6.8	Northeast	7.6
Monte Vista-Shannon	7.5	West	7.0
Calaveras	9.9	East	7.5
San Andreas (1906 event)	11.2	Southwest	8.1
San Gregorio	23.6	West	7.6
Mount Diablo Thrust	24.2	Northeast	6.6
Greenville	24.9	East	7.1

Source: Langan. 2022. *Updated Preliminary Geotechnical Evaluation, 3005 Democracy Way, Santa Clara, California.* May 25.

[7] Langan. 2022. *Updated Preliminary Geotechnical Evaluation, 3005 Democracy Way, Santa Clara, California.* May 25.

[8] California Geological Survey. 2018. *Special Publication 42, Earthquake Fault Zones, A Guide for Government Agencies, Property Owners/Developers, and Geoscience Practitioners for Assessing Fault Rupture Hazards in California.* Available: https://www.conservation.ca.gov/cgs/Documents/Publications/Special-Publications/SP_042.pdf. Accessed: October 3, 2022.

[9] *Moment magnitude* is an energy-based scale that provides a physically meaningful measure of the size of a faulting event. Moment magnitude is directly related to average slip and the fault rupture area.

The Project area will very likely experience a large earthquake in the future. Table 3.9-2 shows the likelihood of a magnitude 6.7 or greater earthquake in the Project area between 2014 and 2043.

Table 3.9-2. Likelihood of Future Earthquake on Regional Faults

Fault	Probability (percent)
Hayward-Rodgers Creek	33
Northern San Andreas	22
Calaveras	26
San Gregorio	16
Greenville	6
Mount Diablo Thrust	16

Source: Langan 2022. *Updated Preliminary Geotechnical Evaluation, 3005 Democracy Way, Santa Clara, California*. May 25.

Project Site

Site Topography and Subsurface Conditions

The topography at the Project site is relatively level, with elevations ranging from approximately 10 to 18 feet, referenced to the North Atlantic Vertical Datum of 1988 (NAVD 88).[10] The site is underlain by alluvial deposits that consist predominantly of clay and sandy clay interbedded with lenses or layers of sand. The surface clay is typically stiff to very stiff and has moderate to high expansion potential. This surficial clay varies in thickness from approximately 4 to 10 feet and is generally underlain by medium stiff to stiff clay to about 30 feet below ground surface (bgs). Layers of loose clayey sand or soft clay and sandy clay, varying in thickness from about 2 to 8 feet, were encountered between depths of 20 to 30 feet bgs. Below approximately 30 feet bgs, the native clay is stiff to very stiff. The sand layers are generally medium dense to dense and wet, containing varying amounts of silt and clay. These sand layers are discontinuous and generally dense below a depth of approximately 50 feet bgs.[11]

Groundwater

The Project site is within the Santa Clara Valley Groundwater Basin, Santa Clara Subbasin. Groundwater within the Santa Clara Subbasin is generally found in aquifers with high-permeability sand and gravel layers interbedded between low-permeability clay and silt layers. The low-permeability layers confine the aquifers and limit the migration of groundwater between aquifers. Recharge within the Santa Clara Subbasin generally occurs along the margins and southern portion of the subbasin where coarse-grained sediments predominate. The recharge area includes the alluvial fan and fluvial deposits along the edge of the subbasin where high rates of lateral and vertical permeability allow surface water to infiltrate the aquifers. The percolation of surface water in recharge areas replenishes unconfined groundwater within the recharge area and contributes to the recharge of principal aquifers in the confined area through subsurface flow. The Project site is within the confined area in the north-central portion of the Santa Clara Subbasin.[12] Groundwater has been measured at depths of approximately 5 to 14 feet bgs at the Project site. Groundwater levels are expected to fluctuate, depending on rainfall and seasonal conditions. [13]

[10] BKF. 2018. *3005 Democracy Way, Existing Site Boundary and Easement Plan*. July 25.

[11] Langan. 2022. *Updated Preliminary Geotechnical Evaluation, 3005 Democracy Way, Santa Clara, California*. May 25.

[12] Santa Clara Valley Water District. 2021. *Groundwater Management Plan for the Santa Clara and Llagas Subbasins.* November.

[13] Langan. 2022. *Updated Preliminary Geotechnical Evaluation, 3005 Democracy Way, Santa Clara, California*. May 25.

Surface Fault Rupture

Surface rupture occurs when the ground surface is broken by fault movement during an earthquake. Surface rupture can generally be assumed to occur along an active or potentially active major fault trace. Areas that are most susceptible to fault rupture are delineated by the CGS Alquist-Priolo Earthquake Fault Zones and require specific geological investigations prior to development to reduce the threat to public health and safety and minimize the loss of life and property posed by earthquake-induced ground failure. The Project site is not within an Alquist-Priolo Earthquake Fault Zone[14] or Santa Clara County Fault Hazard Zone,[15] and no known active or potentially active faults exist on the Project site.[16]

Ground Shaking

Ground shaking is a general term that refers to all aspects of motion on the Earth's surface resulting from an earthquake and normally the major cause of damage in seismic events. The extent of ground shaking is controlled by the magnitude and intensity of the earthquake, the distance from the epicenter, and local geologic conditions. The Modified Mercalli Intensity (MMI) Scale is the most commonly used scale for measurement of the subjective effects of earthquake intensity. The MMI values range from I (earthquake not felt) to XII (damage nearly total); intensities ranging from VI to XII can cause slight to significant structural damage, as described in Table 3.9-3.[17]

Table 3.9-3. Modified Mercalli Intensity (MMI) Scale

MMI Value	Effects of Earthquake Intensity
I	Not felt, except by a very few under especially favorable circumstances.
II	Felt by only a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing.
III	Felt quite noticeably indoors, especially on upper floors of buildings; many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibration is like the passing of a truck. Duration estimated.
IV	During the day, felt indoors by many; outdoors, by few. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
V	Felt by nearly everyone; many awakened. Some dishes, windows, etc., broken; a few instances of cracked plaster and unstable objects overturned. Disturbances to trees, poles, and other tall objects sometimes noticed. Pendulum clocks may stop.
VI	Felt by all; many frightened and run outdoors. Some heavy furniture moved; a few instances of fallen plaster or damaged chimneys. Damage slight.
VII	Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures and considerable in poorly built or badly designed structures. Some chimneys broken. Noticed by persons driving motor cars.

[14] California Geological Survey. 2022. *Earthquake Zones of Required Investigation*. Available: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed: November 8, 2022.

[15] Santa Clara County. 2012. *Geologic Hazard Zones*. Available: https://stgenpln.blob.core.windows.net/document/GEO_GeohazardATLAS.pdf. Accessed: August 23, 2023.

[16] Langan. 2022. *Updated Preliminary Geotechnical Evaluation, 3005 Democracy Way, Santa Clara, California.* May 25.

[17] California Geological Survey. 2002b. *How Earthquakes and Their Effects Are Measured*. Note 32.

MMI Value	Effects of Earthquake Intensity
VIII	Damage slight in specially designed structures and considerable in ordinary substantial buildings, with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving motor cars disturbed.
IX	Damage considerable in specially designed structures and well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.
X	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations and ground badly cracked. Rails bent. Landslides considerable from river banks and steep slopes. Shifted sand and mud. Water splashed (slopped) over banks.
XI	Few, if any, (masonry) structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps, and land slips in soft ground. Rails bent greatly.
XII	Damage total. Practically all works of construction are damaged greatly or destroyed. Waves seen on ground surface. Lines of sight and level are distorted.

Source: California Geological Survey. 2002b. How Earthquakes and Their Effects Are Measured. Note 32.

The mapping of earthquake shaking scenarios by the Association of Bay Area Governments[18] indicates that a large earthquake on the San Andreas fault would produce severe shaking in the Project area (MMI VIII). A large earthquake on the Hayward, Calaveras, or San Gregorio fault would produce very strong shaking (MMI VII) in the Project area, and a large earthquake on the Mount Diablo Thrust fault or Greenville fault would produce strong shaking (MMI VI).

Liquefaction

Liquefaction is the temporary transformation of loose, saturated granular sediments from a solid state to a liquefied state as a result of seismic ground shaking. In the process, the soil undergoes a transient loss of strength, which commonly causes ground displacement or ground failure to occur. Because saturated soils are a necessary condition for liquefaction, soil layers in areas where the groundwater table is near the surface have higher liquefaction potential than those in which the groundwater table is at greater depths. The potential for liquefaction-induced ground failure (e.g., loss of bearing strength, ground fissures, sand boils) depends on the thickness of the liquefiable soil layer relative to the thickness of the overlying non-liquefiable material. The Project site is within a CGS-designated Liquefaction Hazard Zone[19] as well as a Santa Clara County Liquefaction Hazard Zone.[20]

Site-specific analysis of subsurface conditions indicates that layers of liquefiable soils are present at the Project site between depths of 8.5 and 58 feet bgs and that liquefaction-induced settlement of these layers could be on the order of 1 to 2 inches, with up to 1 inch of differential (i.e., unequal) settlement.[21]

[18] Association of Bay Area Governments. 2022. *Hazard Viewer Map*. Available: https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=4a6f3f1259df42eab29b35dfcd086fc8. Accessed: November 8, 2022.

[19] California Geological Survey. 2022. *Earthquake Zones of Required Investigation*. Available: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed: November 8, 2022

[20] Santa Clara County. 2012. *Geologic Hazard Zones*. Available: https://stgenpln.blob.core.windows.net/document/GEO_GeohazardATLAS.pdf. Accessed: August 23, 2023.

[21] Langan. 2022. *Updated Preliminary Geotechnical Evaluation, 3005 Democracy Way, Santa Clara, California*. May 25.

Lateral Spreading

Lateral spreading is a form of horizontal displacement of soil toward an open channel or other "free" face, such as an embankment or excavation boundary. In a lateral spread failure, a layer of ground at the surface is carried on an underlying layer of liquefied material over a nearly flat surface toward the free face. The lateral spreading hazard tends to mirror the liquefaction hazard for an area, assuming a free face is nearby.

The Project site is approximately 500 feet east of Calabazas Creek (the nearest free face). The potentially liquefiable soil layers underlying the Project site are not continuous, and soils underlying the Project site have adequate cohesion such that lateral spreading is not likely to affect the Project site. [22]

Seismic Settlement

Seismic settlement (also referred to as cyclic densification) can occur when non-saturated, cohesionless sand or gravel soil is densified by earthquake vibrations. When the degree of cyclic densification varies, based on different soil types, differential (i.e., unequal) settlement may occur, which can result in greater damage to structures compared to relatively equal settlement. Site-specific analysis of subsurface conditions indicates that the materials above the groundwater water table are composed predominantly of stiff to very stiff clayey soils. Therefore, seismic densification is unlikely to affect the Project site. [23]

Static Settlement and Subsidence

Static settlement is the lowering of the land surface elevation as a result of loading (i.e., placement of heavy loads, typically fill material or structures), which often occurs with the development of a site. Static settlement occurs when buildings or other improvements are built on low-strength subsurface materials such as compressible soils. Differential settlement can occur when buildings or other improvements straddle the boundary between different types of subsurface materials (e.g., a boundary between native material and/or new engineered fill or a boundary between bedrock and soil). Although static settlement generally occurs slowly enough that its effects are not dangerous to inhabitants, it can cause significant damage to buildings and other improvements over time.

Subsidence is the lowering of the land-surface elevation. The mechanism for subsidence is generally related to groundwater pumping and subsequent consolidation of loose aquifer sediments. Subsidence may also be related to static settlement, as discussed above. The primary hazards associated with subsidence are increased flooding hazards and damage to underground utilities as well as aboveground structures. Other effects of subsidence include changes in the gradients of stormwater and sanitary sewer drainage systems for which the flow is gravity driven. Minor subsidence and recovery due to seasonal variation in groundwater levels is considered elastic subsidence. Historical groundwater pumping in the Santa Clara Plain resulted in a decline of groundwater levels by as much as 200 feet. Fluid pressure in the aquifers was reduced, resulting in the compression of fine-grained materials (e.g., clays) and a broad sagging of the land surface. Approximately 6 feet of inelastic (permanent) subsidence was observed in the Project area between 1934 and 1967. Significant inelastic subsidence in the Project area was essentially halted around 1970 through the Santa Clara Valley Water District's expanded conjunctive management programs, which allowed groundwater levels to recover substantially. Some amount of elastic (temporary) subsidence occurs annually in response to seasonal pumping.[24]

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[22] Ibid.

[23] Ibid.

[24] Santa Clara Valley Water District. 2021. *Groundwater Management Plan for the Santa Clara and Llagas Subbasins*. November.

Expansive Soils

Expansion and contraction of soil volume can occur when expansive soils undergo alternating cycles of wet conditions (causing swelling) and dry conditions (causing shrinking). During these cycles, the volume of the soil changes markedly. Shrink-swell potential is influenced by the amount and type of clay minerals present and measured by the percent change of the soil volume. Shrink-swell potential is also influenced by the location of the soils; soils below the groundwater table maintain a steady moisture content and therefore would not be subject to shrink-swell effects. As a consequence of volume changes due to expansive soils, structural damage to buildings and infrastructure can occur if potentially expansive soils are not considered in the design and during construction. The surficial clayey soil at the Project site has a moderate to high expansion potential. [25]

Landslide Hazards

The Project site is relatively flat, with no significant slopes on or near the site. The Project site is not located within a CGS-designated Landslide Hazard Zone[26] or Santa Clara County Landslide Hazard Zone.[27]

Paleontological Resources

The Project site is located on Quaternary alluvium of the Santa Clara Valley (Q).[28] Because the alluvium of the Santa Clara Valley is deeper than proposed excavation—specifically, 150 to 1,500 feet bgs—construction would disturb only the Quaternary alluvium of the Santa Clara Valley and would not disturb any geologic unit underlying this unit.[29]

Quaternary Alluvium of the Santa Clara Valley (Q)

Pleistocene vertebrate fossils have been found from multiple localities in Quaternary alluvium across the Santa Clara Valley, including Lawrence Expressway East, San José; Santa Clara Valley Water District lands of the Guadalupe River in San José; Sunnyvale Sewer, Sunnyvale; Calabaza Creek, Sunnyvale; and Milpitas, as well as multiple localities farther north. All of these fossil localities occur in units that have been mapped as surficial Holocene deposits.[30] Radiocarbon dating of the mapped Holocene sediments where the Pleistocene remains were found shows Pleistocene age for two of these finds (11 feet and 30 feet below modern ground surface); for the others, no dating was performed. Some of these finds may have washed down from the mountains and been deposited in Holocene waterways, but the two radiocarbon-dated finds very likely originated where they were found. These occurrences "demonstrate that older sediments and fossils (more than 10 thousand years before present) occur at or very near the surface in these areas," particularly because the amount, association, and orientation of the fossils from these localities indicate that the sediments in which they occur had not been reworked through subsequent

[25] Langan. 2022. *Updated Preliminary Geotechnical Evaluation, 3005 Democracy Way, Santa Clara, California*. May 25.

[26] California Geological Survey. 2022. *Earthquake Zones of Required Investigation*. Available: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed: November 8, 2022

[27] Santa Clara County. 2012. *Geologic Hazard Zones*. Available: https://stgenpln.blob.core.windows.net/document/GEO_GeohazardATLAS.pdf. Accessed: August 23, 2023.

[28] Wagner, D.L., E.J. Burtugno, R.D. McJunkin. 1991. *Geologic Map of the San Francisco-San José Quadrangle, California,* 1:250,000. Available: ftp://ftp.consrv.ca.gov/pub/dmg/pubs/rgm/RGM_005A/. Accessed: August 13, 2019.

[29] Santa Clara Valley Water District. 2010. *Revised Final Groundwater Vulnerability Study, Santa Clara County, California.* Prepared by Todd Engineers, Alameda, CA, and Kennedy Jenks Consultants, San Francisco, CA. Available: https://www.valleywater.org/sites/default/files/2018-02/Groundwater%20Vulnerability%20Study.pdf. Accessed: August 23, 2023.

[30] Maguire, K.C., and P.A. Holroyd. 2016. *Pleistocene Vertebrates of Silicon Valley (Santa Clara County, California).* Available: https://escholarship.org/uc/item/3k43832x. Accessed: August 13, 2019.

geologic or artificial processes.[31] Accordingly, Pleistocene alluvium may be more widespread and shallower in the Santa Clara Valley than was previously thought, and Pleistocene fossils resources are very likely present in the Santa Clara Valley in units mapped as Holocene alluvium. Vertebrate fossils documented include extinct species of mammoth, bear, horse, bison, and camel.

Environmental Impacts

This section describes the impact analysis related to geology and soils for the Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each significant impact discussion.

Thresholds of Significance

The Project would have a significant effect if it would result in any of the conditions listed below.

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (GEO-1 and C-GEO-1);
  - ii) Strong seismic ground shaking (GEO-1 and C-GEO-1);
  - iii) Seismically related ground failure, including liquefaction (GEO-1 and C-GEO-1); and
  - iv) Landslides (GEO-1 and C-GEO-1).
- Result in substantial soil erosion or the loss of topsoil (GEO-2 and C-GEO-2).
- 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 onsite or offsite landslides, lateral spreading, subsidence, liquefaction, or collapse (GEO-3, C-GEO-3, and C-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-4 and C-GEO-5).
- Have soils that would be incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater (GEO-5).
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature (GEO-6 and C-GEO-6).

Methods for Analysis

Geology, Soils, and Seismicity

The study area for geology, soils, and seismicity is the Project site and areas immediately adjacent to the Project site. The Preliminary Geotechnical Evaluation[32] performed engineering analyses to develop preliminary conclusions and recommendations regarding appropriate foundation types, design

[31] Ibid.

[32] Langan. 2022. *Updated Preliminary Geotechnical Evaluation, 3005 Democracy Way, Santa Clara, California*. May 25.

parameters, and seismic coefficients for Project development. The Preliminary Geotechnical Evaluation indicates that a final geotechnical investigation that includes additional borings, cone penetrometer tests, and laboratory testing should be performed at the Project site to develop final geotechnical recommendations. The analysis below assumes that a design-level geotechnical report would be prepared for the Project in accordance with the requirements of the California Building Code, Seismic Hazards Mapping Act, and the City's Municipal Code and that the recommendations of the design-level geotechnical report would be incorporated into the Project design and implemented during Project construction.

Paleontological Resources

The study area for paleontological resources is defined by a 150-foot buffer outside the extent of disturbance plus underlying units to the maximum depth of excavation, 24 feet bgs.

The fossil-yielding potential of geologic units in a particular area depends on the geologic age and origin of the units as well as on the processes they have undergone, both geologic and anthropogenic.[33] The methods used to analyze potential impacts on paleontological resources and develop mitigation for the identified impacts involved the following steps:

- Identify the geologic units in the paleontological study area.
- Evaluate the potential of the identified geologic units to contain significant fossils (their *paleontological sensitivity*).
- Identify the geologic units that would be affected by the Project, based on proposed depth of excavation—either at the ground surface or below the ground surface, defined as at least 5 feet bgs.
- Assess the likelihood of the geologic units affected by implementing the Project containing scientifically important, nonrenewable paleontological resources that could be directly affected.
- Identify and evaluate impacts on paleontologically sensitive geologic units as a result of construction and operation that involve ground disturbance.
- Evaluate impact significance.
- According to the identified degree of sensitivity, formulate and implement measures to mitigate potential impacts.

The potential of the Project to affect paleontological resources relates to ground disturbance. Ground disturbance caused by implementing the Project would take place only during construction phases; therefore, this impact analysis addresses construction impacts.

To identify the geologic units in the paleontological study area, the *Geologic Map of the San Francisco-San José Quadrangle, California,* was consulted.[34] To evaluate the paleontological sensitivity of the geologic units, the University of California Museum of Paleontology database[35] and scientific literature[36] were searched for records of fossils.

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[33] *Anthropogenic* means caused by human activity.

[34] Wagner, D.L., E.J. Burtugno, R.D. McJunkin. 1991. *Geologic Map of the San Francisco-San José Quadrangle, California,* 1:250,000. Available: ftp://ftp.consrv.ca.gov/pub/dmg/pubs/rgm/RGM_005A/. Accessed: August 13, 2019.

[35] University of California Museum of Paleontology. 2019. Specimens database search. Available: https://ucmpdb.berkeley.edu/cgi/ucmp_query2. Accessed: August 13, 2019.

[36] Maguire, K.C., and P.A. Holroyd. 2016. *Pleistocene Vertebrates of Silicon Valley (Santa Clara County, California).* Available: https://escholarship.org/uc/item/3k43832x. Accessed: August 13, 2019.

After the records search, the paleontological sensitivity of the units was assessed (see *Paleontological Sensitivity of Geologic Units at the Project Site,* below). Unlike archaeological sites, which are narrowly defined, paleontological sites are defined by the entire extent (both areal and stratigraphic) of a unit or formation. Once a unit is identified as containing vertebrate fossils, or other rare fossils, the entire unit is a paleontological site.[37] For this reason, the paleontological sensitivity of geologic units is described and analyzed broadly rather than being limited to jurisdictional boundaries.

The Impact Mitigation Guidelines Revisions Committee of the Society of Vertebrate Paleontology has published standard guidelines[38] for the investigation, collection, preservation, and cataloging of fossil-bearing sites. The standard guidelines are widely accepted among paleontologists and followed by most investigators. The standard guidelines identify the two key phases of paleontological resource protection as (1) assessment and (2) implementation. Assessment involves identifying the potential for a project site or area to contain significant nonrenewable paleontological resources that could be damaged or destroyed by project excavation or construction. Implementation involves formulating and applying measures to reduce such adverse effects. The Society of Vertebrate Paleontology defines the level of potential as one of four sensitivity categories for sedimentary rocks: High, Undetermined, Low, and No Potential.[39]

- **High Potential.** Assigned to geologic units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered as well as sedimentary rock units suitable for the preservation of fossils (e.g., middle Holocene and older fine-grained fluvial sandstones, fine-grained marine sandstones). Paleontological potential consists of the potential for yielding abundant fossils, a few significant fossils, or "recovered evidence for new and significant taxonomic, phylogenetic, paleoecologic, taphonomic, biochronologic, or stratigraphic data."
- **Undetermined Potential.** Assigned to geologic units "for which little information is available concerning their paleontological content, geologic age, and depositional environment." In cases where no subsurface data already exist, paleontological potential can sometimes be assessed by subsurface site investigations.
- **Low Potential.** Field surveys or paleontological research may allow determination that a geologic unit has low potential for yielding significant fossils (e.g., basalt flows). Mitigation is generally not required to protect fossils.
- **No Potential.** Some geologic units have no potential to contain significant paleontological resources, such as high-grade metamorphic rocks (e.g., gneisses and schists) and plutonic igneous rocks (e.g., granites and diorites). Mitigation is not required.

Based on data from the University of California Museum of Paleontology database[40] and the scientific literature,[41] each geologic unit in the study area was assigned a paleontological sensitivity according to the Society of Vertebrate Paleontology's standard guidelines. To evaluate impacts on paleontologically sensitive geologic units as a result of implementing the Project, geologic mapping was used to identify the

[37] Society of Vertebrate Paleontology. 2010. *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources.* Available: http://vertpaleo.org/Membership/Member-Ethics/SVP_Impact_Mitigation_ Guidelines.aspx. Accessed: September 1, 2023.

[38] Ibid.

[39] Ibid.

[40] University of California Museum of Paleontology. 2019. Specimens database search. Available: https://ucmpdb.berkeley.edu/cgi/ucmp_query2. Accessed: August 13, 2019.

[41] Maguire, K.C., and P.A. Holroyd. 2016. *Pleistocene Vertebrates of Silicon Valley (Santa Clara County, California).* Available: https://escholarship.org/uc/item/3k43832x. Accessed: August 13, 2019.

geologic unit(s) that would be disturbed by construction-related ground-disturbing activities with respect to the location of geologic units with high potential and undetermined potential.

Paleontological Sensitivity of Geologic Units at the Project Site

The paleontological sensitivity of the geologic units exposed at ground surface in the study area is shown in Table 3.9-4.

Table 3.9-4. Geologic Units in the Paleontological Study Area and Paleontological Sensitivity

Symbol	Geologic Unit	Epoch	Paleontological Sensitivity	Notes
Q	Alluvium	Holocene	Low, Undetermined, and High	In most areas, units are most likely too young to yield fossils.[a] However, recent research suggests that the Quaternary alluvium of the Santa Clara Valley may be more paleontologically sensitive than previously recognized.[b] Therefore, the Quaternary alluvium of the Santa Clara Valley is considered sensitive for paleontological resources.

Sources: Society of Vertebrate Paleontology 2010, pg. 2000; Wagner et al. 1991; Barlock 1989

a. Geologic units younger than 5,000 years old are generally not considered old enough to contain fossils (Wagner et al. 1991).

b. Maguire and Holroyd 2016.

Topics Found to Have No Impact

Landslides (GEO-1). As discussed under *Landslide Hazards*, above, the Project site and surrounding areas are not susceptible to landslides because the topography is relatively flat. Furthermore, the Project site is not within or near a recognized Landslide Hazard Zone. Therefore, the Project would result in ***no impact*** related to landslides.

Septic Tanks and Alternative Wastewater Systems (GEO-5). Sewer services at the Project site would be provided by the City of Santa Clara Sewer Utility. No septic tanks or alternative wastewater systems are proposed. The Project would not require soils that would be capable of supporting septic systems, resulting in ***no impact***.

Impacts and Mitigation Measures

Impact GEO-1: Seismicity. 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, strong seismic ground shaking, or seismically related ground failure. (Less than Significant)

Rupture of a Known Earthquake Fault

Construction and Operation

As discussed under *Surface Fault Rupture,* above, the Project site is not within a Alquist-Priolo Earthquake Fault Zone[42] or Santa Clara County Fault Hazard Zone,[43] and no known active or potentially active faults exist on the Project site. Therefore, the potential for fault rupture to occur at the Project site during construction or operation is highly unlikely. This impact would be ***less than significant***.

Ground Shaking and Liquefaction

Construction and Operation

As discussed under *Ground Shaking,* above, the Project site is in a seismically active region. Strong to sever ground shaking could occur during a major earthquake on a regional fault during the lifetime of the Project (construction and operation). Ground shaking could damage future structures at the Project site and increase the risk of loss, injury, or death for occupants of the structures.

As discussed under *Liquefaction,* above, the Project site is within a CGS-designated Liquefaction Hazard Zone[44] and a Santa Clara County Liquefaction Hazard Zone.[45] Liquefaction-induced settlement on the order of 1 to 2 inches (with up to 1 inch of differential settlement) could occur at the Project site.[46] Settlement due to liquefaction could damage foundations and utilities, increasing the risk of loss, injury, or death for occupants of the Project site.

The risk to structures and improvements from seismic ground shaking and liquefaction is reduced through adherence to the design and materials standards set forth in the California Building Code as well as recommendations in site-specific geotechnical reports. A site-specific design-level geotechnical report would be required for the Project, in accordance with the requirements of the California Building Code, Seismic Hazards Mapping Act, and the City's Municipal Code. Because the Project site is in a CGS-designated Liquefaction Hazard Zone, the site-specific geotechnical report must include recommendations to mitigate seismic hazards in accordance with the guidelines of CGS Special Publication 117A.[47]

The Preliminary Geotechnical Evaluation[48] provided preliminary recommendations to address seismic ground shaking and liquefaction, including preliminary recommendations for seismic design parameters and various foundation design options, including shallow spread footings, mat foundations, and deep foundations (e.g., auger-cast displacement piles or driven piles).

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42 California Geological Survey. 2022. *Earthquake Zones of Required Investigation*. Available: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed: November 8, 2022

43 Santa Clara County. 2012. *Geologic Hazard Zones*. Available: https://stgenpln.blob.core.windows.net/document/GEO_GeohazardATLAS.pdf. Accessed: August 23, 2023.

44 California Geological Survey. 2022. *Earthquake Zones of Required Investigation*. Available: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed: November 8, 2022

45 Santa Clara County. 2012. *Geologic Hazard Zones*. Available: https://stgenpln.blob.core.windows.net/document/GEO_GeohazardATLAS.pdf. Accessed: August 23, 2023.

46 Langan. 2022. *Updated Preliminary Geotechnical Evaluation, 3005 Democracy Way, Santa Clara, California*. May 25.

47 California Geological Survey. 2008. *Special Publication 117A, Guidelines for Evaluating and Mitigating Seismic Hazards in California.* September 11.

48 Langan. 2022. *Updated Preliminary Geotechnical Evaluation, 3005 Democracy Way, Santa Clara, California*. May 25.

Consistent with the requirements of the City and existing regulations, as discussed above, the Project would be required to submit a design-level geotechnical report to the City for review and approval prior to the issuance of building and grading permits. The Project Sponsor would implement the geotechnical recommendations of the design-level geotechnical report to address seismic hazards, including ground shaking and liquefaction, and ensure the integrity of structures and other improvements. Accordingly, this impact would be ***less than significant***.

Impact GEO-2: Erosion or Loss of Topsoil. The Project would not result in substantial soil erosion or the loss of topsoil. (Less than Significant)

Construction

Soil erosion, which is discussed in detail in Section 3.10, *Hydrology and Water Quality*, could occur during construction of the Project. As described in Section 3.10, compliance with the State Water Resources Control Board's Construction General Permit,[49] including preparation and implementation of a Stormwater Pollution Prevention Plan, would ensure that the Project would result in ***less-than-significant*** impacts related to erosion or loss of topsoil during construction.

Operation

During operation and maintenance of the Project, the Project site would be covered with buildings, pavement, and landscaping, which would minimize the potential for post-development erosion. Therefore, operation and maintenance of the Project would result in ***less-than-significant*** impacts related to erosion or loss of topsoil.

Impact GEO-3: Soil Instability. The Project would be located on soil that is or would become unstable as a result of the Project and potentially result in lateral spreading, subsidence, liquefaction, or collapse, but such impacts would be adequately addressed by mitigation. (Less than Significant with Mitigation)

Construction

Potential impacts related to liquefaction are discussed under *Impact GEO-1*. As discussed under *Lateral Spreading*, above, the potentially liquefiable soil layers underlying the Project site are not continuous. Soils underlying the Project site have adequate cohesion such that lateral spreading is not likely to affect the site. [50] Therefore, potential impacts related to lateral spreading would be ***less than significant***.

The Preliminary Geotechnical Evaluation[51] indicates that proposed buildings at the Project site would be susceptible to static settlement due to consolidation of the alluvial deposits underlying the Project site with the weight of new building loads or new fill. The Preliminary Geotechnical Evaluation indicates that settlement would affect various aspects of the Project, including the foundation design, utilities, streets, building entrances, and sidewalks, and that static and seismic settlement are expected to be erratic and variable across the Project site.

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[49] State Water Resources Control Board. 2009. *2009-0009-DWQ Construction General Permit (effective July 1, 2010).* Available: https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/wqo_2009_0009_complete.pdf. Accessed: September 1, 2023.

[50] Ibid.

[51] Langan. 2022. *Updated Preliminary Geotechnical Evaluation, 3005 Democracy Way, Santa Clara, California*. May 25.

The Preliminary Geotechnical Evaluation indicates that the estimated static settlement of lightweight at-grade structures supported on shallow spread footings would not exceed 1 inch; differential settlement between adjacent footings, typically 30 feet apart, would not exceed 0.5 inch, assuming the footings are designed in accordance with geotechnical recommendations. The Preliminary Geotechnical Evaluation indicates that the estimated static settlement of buildings with a one-level basement supported on a mat foundation would be on the order of 1 inch and that differential settlement would depend on the rigidity of the mat, with the assumption that building loads would be less than the weight of the soil removed for basement excavations. The Preliminary Geotechnical Evaluation indicates that, if static or liquefaction-induced settlement is not tolerable or higher bearing capacities are needed for heavy structures like mid- to high-rise buildings, deep foundations with auger-cast displacement piles or driven piles may be used. The Preliminary Geotechnical Evaluation indicates that buildings on deep foundations would experience static settlement of less than 1 inch, with less than 0.5 inch of differential settlement between columns; most of the static settlement would occur during construction. The Preliminary Geotechnical Evaluation indicates that information regarding structural loads and the depth of basements was not available when the estimated settlements above were developed; the settlement estimates can be refined once building design, loads, and grading plans are available.[52] The Preliminary Geotechnical Evaluation did not provide the estimated amount of settlement that could occur due to loads from the placement of fill materials. Settlement due to new loads from the placement of fill material could damage existing improvements surrounding the Project site (e.g., streets, sidewalks, utilities) or proposed improvements on the Project site (e.g., proposed structures, streets, sidewalks, utilities), which would be a ***significant*** impact.

Construction of the Project would require excavation up to a depth of approximately 16 feet for the one level of below-grade parking. Shoring would be required to restrain the sidewalls of the excavations laterally, ensuring that they would not collapse, and limit the movement of adjacent improvements, such as public streets, sidewalks, and utilities. Appropriate shoring that meets applicable regulatory standards will be specified in the detailed construction documents prepared for the Project.

Excavation would extend below the groundwater table; therefore, dewatering would be required. Excavation dewatering could lower the groundwater table in adjacent areas, which could result in subsidence and settlement-related damage to existing improvements near excavations.

The Preliminary Geotechnical Evaluation presents shoring considerations and indicates that the most economical shoring system would consist of soldier piles with timber lagging; however, this shoring option would require extensive dewatering to install lagging in areas where water is encountered. The Preliminary Geotechnical Evaluation indicates that an alternative shoring method would be to use mixed-in-place, closely spaced soil/cement columns to create a cutoff wall, which would limit groundwater seepage and dewatering, reduce the potential for lowering the water table behind the shoring, and significantly limit caving and lateral deflections as well as ground subsidence related to the excavation. To reduce the potential for damage to the water transmission lines within a San Francisco Public Utilities Commission easement, the Preliminary Geotechnical Evaluation also indicates that the shoring system proposed for excavations near the southern property line should be rigid enough to reduce lateral deflections and ground subsidence related to the excavation. Soil/cement columns or panels, concrete diaphragm walls, and secant pile walls would be appropriate for excavations along the southern property line of the Project site.[53]

[52] Ibid.

[53] Ibid.

If potential settlement due to the placement of fill material is not accounted for in the Project design, damage to existing or proposed improvements could occur. If appropriate shoring systems are not designed and installed, the movement or collapse of excavation sidewalls, as well as subsidence due to dewatering, could result in damage to adjacent improvements. Thus, ***significant*** impacts related to soil instability could result from construction of the Project.

MITIGATION MEASURE. Implementation of Mitigation Measure GEO-3.1 would ensure that the significant impacts related to soil instability would be reduced to a ***less-than-significant*** level.

GEO-3.1: *Static Settlement, Subsidence, or Collapse.* The Project Sponsor shall define the extent and depth of fill materials that would be placed on the Project site in the Project plans. The Project Sponsor shall hire a qualified geotechnical engineer to prepare a design-level geotechnical report for the Project, which shall include the following:

- A design-level analysis of potential total and differential settlement associated with the placement of defined amounts of fill material, construction of other improvements, and dewatering activities on the Project site. The settlement analysis shall define a buffer distance away from the Project site within which settlement could occur as a result of the Project and describe the settlement amounts that could occur within this buffer distance.
- Allowable settlement estimates for planned and existing improvements, both on the Project site and within the buffer distance described above, which shall account for estimated settlement amounts developed for existing and planned improvements on surrounding properties.
- Recommendations to minimize the amount of subsidence/settlement and differential settlement that would result from the Project (e.g., minimizing the placement of fill, using lightweight fill, employing shoring systems that minimize the amount of excavation dewatering required).
- Recommendations to mitigate potential damage to proposed and existing improvements (e.g., structures, pavement surfaces, roadways, utilities), both on and off the Project site, that could result from settlement of existing unstable soil on and near the Project site as a result of the Project. Such recommendations could include the installation of flexible utility couplings or relocation of utilities.
- If the settlement analysis indicates that existing offsite improvements could be adversely affected by settlement as a result of the Project, a pre-construction survey (e.g., crack survey) and settlement monitoring program shall be developed and implemented before and during construction for existing improvements that may be affected by the Project. This survey shall be used as a baseline for evaluating any damage claims; it shall also be used to assist the contractor when assessing the performance of shoring systems. The pre-construction survey shall record the elevation and horizontal position of all existing installations within the buffer distance determined by the settlement analysis, as described above, and shall consist of, but not be limited to, photographs, video documentation, and topographic surveys. The settlement monitoring program shall include the installation of inclinometers and groundwater monitoring wells within an approximate distance of 5 to 15 feet from excavations toward existing improvements. Settlement surveys shall be performed on a weekly basis during excavation and on a monthly basis starting approximately 1 month after the excavation has been completed and continuing for a

period of at least 2 years after the completion of construction activities (or other frequency and duration recommended by the geotechnical engineer of record).

The Project Sponsor shall submit the Project plans and design-level geotechnical report to the City for review and approval prior to the City issuing grading or building permits. The Project Sponsor shall repair damage to existing or planned improvements if settlement monitoring identifies obvious damage or an exceedance of allowable settlement amounts. The repair of damage shall be performed prior to the City issuing a certificate of occupancy for the applicable portion of the Project.

Operation

Operation and maintenance of the Project would not create new significant loads that could trigger additional static settlement. Operation and maintenance of the Project would not result in unstable soil that could be subject to collapse. The walls of the below-grade parking areas on the Project site would be waterproofed so that permanent dewatering would not be required during operation and maintenance of the Project. Therefore, operation and maintenance of the Project would result in ***no impacts*** related to static settlement, collapse, or subsidence of unstable soil.

Impact GEO-4: Expansive Soil. The Project would not create substantial direct or indirect risks to life or property as a result of being located on expansive soil. (Less than Significant)

Construction and Operation

As discussed above under *Expansive Soils*, the Project site overlies moderate to highly expansive soils. Expansive soils have the potential to damage proposed foundations/floor slabs, utilities, and pavement due to moisture fluctuations if appropriate engineering is not incorporated into the Project design. Potential causes of moisture fluctuations in soil could include drying during construction as well as subsequent wetting from rain, capillary rise, landscape irrigation, poor drainage, and plant selection. The Preliminary Geotechnical Evaluation indicates that these effects could be avoided by moisture conditioning the expansive soil; providing a layer of select, non-expansive fill below interior and exterior slabs; and supporting foundations below the zone of severe moisture change. An alternative to importing select fill is lime treatment for near-surface soil. The Preliminary Geotechnical Evaluation provides preliminary recommendations regarding earthwork, shallow foundations, exterior pavement, and floor slabs to address expansive soil conditions.[54] Foundations that extend below the groundwater table would not be subject to damage from expansive soils because moisture fluctuations would not occur below the groundwater table.

Consistent with the requirements of the City and existing regulations discussed above, the Project would be required to submit a design-level geotechnical report to the City for review and approval prior to the issuance of building and grading permits. The Project Sponsor would implement the geotechnical recommendations of the design-level geotechnical report to address expansive soil hazards and ensure the integrity of structures and other improvements. Accordingly, this impact would be ***less than significant***.

[54] Ibid.

Impact GEO-6: Paleontological Resources. Construction of the Project could directly or indirectly destroy a unique paleontological resource or site or unique geological feature, but such impacts would be adequately addressed by mitigation. (Less than Significant with Mitigation)

Construction

The Project would be located in areas that are underlain by geologic units that have yielded scientifically important fossil finds, including vertebrate remains. Disturbance of, damage to, or loss of paleontological resources with high paleontological potential would constitute a significant impact. As stated above in Table 3.9-4, the Project is located on a geologic unit with high paleontological potential. The Project involves excavation to a maximum depth of 16 feet bgs in sediments that have been previously disturbed at ground surface. Based on boring samples, it appears that geologic units underlying the site have not been disturbed at depth. Therefore, it is possible that Project-related excavation could encounter significant paleontological resources. Accordingly, the Project would have a ***significant*** impact on significant paleontological resources.

MITIGATION MEASURE. Implementation of Mitigation Measure GEO-6.1 would ensure that the significant impacts related to paleontological resources would be reduced to a ***less-than-significant*** level.

GEO-6.1: Paleontological Resources. Monitor for Discovery of Paleontological Resources, Evaluate Found Resources, and Prepare and Follow a Recovery Plan for Found Resources.

Given the potential for paleontological resources to be present in construction areas at ground surface and at excavation depths in sensitive geologic units in the paleontological resources study area, the following measures shall be undertaken to avoid any potentially significant effect on paleontological resources from the improvements. Before the start of any drilling or pile-driving activities, the Project Sponsor shall retain a qualified paleontologist, as defined by the Society of Vertebrate Paleontology, who is experienced in teaching non-specialists. The qualified paleontologist shall be approved by the City prior to the start of any drilling or pile-driving activities. Prior to construction, the qualified paleontologist shall prepare a general (high-level) recovery plan, which could be tailored to a specific area in the event of a discovery. The qualified paleontologist shall train all construction personnel, including the site superintendent, who are involved with earthmoving activities regarding the possibility of encountering fossils, the appearance and types of fossils that are likely to be seen during construction, and proper notification procedures should fossils be encountered. Procedures to be conveyed to workers include halting construction within 50 feet of any potential fossil find and notifying a qualified paleontologist, who shall evaluate the significance. The qualified paleontologist shall also visit the Project site once per week during earthmoving to verify that workers are following the established procedures, unless determined by the qualified paleontologist that more frequent visits are warranted.

If paleontological resources are discovered during earthmoving activities, the construction crew shall immediately cease work within 50 feet of the find and notify the City and Project Sponsor. Construction work in the affected areas shall remain stopped or be diverted to allow recovery of fossil remains in a timely manner. The Project Sponsor shall retain a qualified paleontologist (who has been approved by the City) to evaluate the resource and tailor the general recovery plan to the specific nature of the discovery, in accordance with Society of Vertebrate Paleontology

guidelines.[55] The tailored recovery plan may include a field survey, construction monitoring, sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings. The City shall review and approve the tailored recovery plan prior to recommendations being implemented. Recommendations in the tailored recovery plan that are determined by the City to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resources were discovered. The Project Sponsor, with City oversight, shall be responsible for ensuring that the monitor's recommendations regarding treatment and reporting are implemented.

Operation

There would be no impact on paleontological resources during Project operation; any impact on paleontological resources would occur during the construction phase of the Project. Therefore, there would be ***no impact*** during operation.

Cumulative Impacts

This section evaluates cumulative impacts on geology and soils. This cumulative analysis examines the effects of the Project in the relevant geographic area in combination with other current projects and probable future projects. Cumulative impacts are addressed only for those thresholds that would result in a Project-related impact, whether it be less than significant or less than significant with mitigation. If the Project would result in no impact with respect to a particular threshold, by definition, it would not contribute to a cumulative impact. As discussed under Landslides (GEO-1) in the Topics Found to Have No Impact subsection, the Project would have no impacts related to landslides. Similarly, **no cumulative impact** related to landslides would result from the Project. As discussed under Septic Tanks and Alternative Wastewater Systems (GEO-5) in the Topics Found to Have No Impact subsection, the Project would have no impacts related to septic tanks and alternative wastewater systems. Similarly, **no cumulative impact** related to septic tanks and alternative wastewater systems would result from the Project.

Potential impacts related to geology, soils, and paleontological resources generally do not extend far beyond an individual development's boundaries because each development may have unique geologic and paleontological considerations. Therefore, the potential for cumulative impacts is generally limited to individual development sites and adjacent sites. For this reason, potential impacts are typically confined to discrete spatial locations and do not combine to create a significant cumulative impact. The exception to this generalization would occur where larger-scale geologic events, such as a large landslide or subsidence/settlement, might affect surrounding areas. As discussed under Landslides (GEO-1) in the Topics Found to Have No Impact subsection, the Project would have no impacts related to landslides. Potential impacts related to seismic hazards, soil erosion, the collapse of unstable soil, and expansive soils would be specific to the Project site and would not combine with other projects to create a cumulative impact. The geographic context for the analysis of potential cumulative impacts related to the settlement/subsidence of unstable soil is the Project site and the sites for adjacent cumulative projects, including the Patrick Henry Specific Plan and the 2901 Tasman Drive and 3001 Tasman Drive projects, which are described in Table 3-1 in Chapter 3, *Environmental Impact Analysis*, of this Draft EIR. The

[55] Society of Vertebrate Paleontology. 2010. *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*. Available: http://vertpaleo.org/Membership/Member-Ethics/SVP_Impact_Mitigation_ Guidelines.aspx. Accessed: September 1, 2023.

geographic context for the analysis of potential cumulative impacts on paleontological resources comprises the paleontologically sensitive geologic unit(s) that the Project would disturb.

Impact C-GEO-1: Cumulative Seismicity Impacts. The Project, in combination with other foreseeable development in the vicinity, 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, strong seismic ground shaking, or seismically related ground failure. (Less than Significant)

Construction and Operation

Potential impacts of the Project related to seismicity would be localized and specific to the Project site and would not combine with other projects to create a cumulative impact. Therefore, ***no impact*** related to seismicity would result from the Project under cumulative conditions, and no mitigation would be necessary.

Impact C-GEO-2: Cumulative Erosion or Loss of Topsoil. The Project, in combination with other foreseeable development in the vicinity, would not result in substantial soil erosion or the loss of topsoil. (Less than Significant)

Construction and Operation

Potential impacts of the Project related to erosion or loss of topsoil would be localized and specific to the Project site and would not combine with other projects to create a cumulative impact. Therefore, ***no impact*** related to erosion or loss of topsoil would result from the Project under cumulative conditions, and no mitigation would be necessary.

Impact C-GEO-3: Cumulative Collapse of Unstable Soil. The Project, in combination with other foreseeable development in the vicinity, would not result in the collapse of unstable soil. (Less than Significant)

Construction and Operation

Potential impacts of the Project related to the collapse of unstable soil would be localized and specific to the Project site and would not combine with other projects to create a cumulative impact. Therefore, ***no impact*** related to the collapse of unstable soil would result from the Project under cumulative conditions, and no mitigation would be necessary.

Impact C-GEO-4: Cumulative Settlement or Subsidence of Unstable Soil. The Project, in combination with other foreseeable development in the vicinity, could result in static settlement or subsidence, but such impacts would be adequately addressed by mitigation. (Less than Significant with Mitigation)

Construction

Potential cumulative impacts associated with the settlement or subsidence of unstable soil could occur if projects near the Project site cause settlement from new loads or subsidence from dewatering, which could affect existing and proposed improvements, including structures, pavement/roadways, and utilities. Multiple projects are adjacent to the Project site that could cause cumulative settlement and subsidence impacts. These include development under the Patrick Henry Specific Plan south of the Project

site and development at the 2901 Tasman Drive and 3001 Tasman Drive sites. Cumulative projects could involve the placement of fill material or structures that could contribute to the settlement of unstable soil in adjacent areas from new loads. They could also involve dewatering, which could contribute to subsidence in adjacent areas. Settlement or subsidence in areas adjacent to these cumulative projects could combine with settlement or subsidence associated with the Project and contribute to damage for existing or planned improvements. Therefore, the potential for a cumulative impact exists in the study area.

The Project would not make a cumulatively considerable contribution to settlement and subsidence-related impacts because implementation of Mitigation Measure GEO-3.1 would ensure that 1) the potential for settlement, including subsidence, from the Project would be evaluated in the design-level geotechnical report and geotechnical recommendations to address potential settlement issues; 2) settlement monitoring would be performed during and following construction of the Project, as necessary; and 3) if excessive settlement occurs, corrective measures (e.g., repair of damage) would be implemented. Therefore, cumulative construction impacts related to the settlement or subsidence of unstable soil would be ***less than significant with mitigation***.

Operation

Operation of the Project and cumulative projects would not create new significant loads that could trigger additional static settlement. The walls of the below-grade parking areas on the Project site would be waterproofed so that permanent dewatering would not be required during operation of the Project; similar waterproofing would be required for structures extending below the groundwater table at the sites for cumulative projects, if any. Therefore, operation of the Project and cumulative projects would not result in the subsidence of unstable soil. Therefore, operation of the Project would result in ***no impacts*** related to static settlement or the subsidence of unstable soil under cumulative conditions, and no mitigation would be necessary.

Impact C-GEO-5: Cumulative Expansive Soil Impacts. The Project, in combination with other foreseeable development in the vicinity, would not create substantial direct or indirect risks to life or property as a result of being located on expansive soil. (Less than Significant)

Construction and Operation

Potential impacts of the Project related to expansive soil would be localized and specific to the Project site and would not combine with other projects to create a cumulative impact. Therefore, ***no impact*** related to expansive soil would result from the Project under cumulative conditions, and no mitigation would be necessary.

Impact C-GEO-6: Cumulative Paleontological Resources Impacts. The Project, in combination with other foreseeable development in the vicinity, could result in a substantial effect on paleontological resources, but such impacts would be adequately addressed by mitigation. (Less than Significant with Mitigation)

Construction

As discussed above under *Paleontological Resources* in the *Methods for Analysis* discussion, the geologic unit underlying the Project site is Quaternary alluvium of the Santa Clara Valley, evaluated as having high paleontological potential. The Project vicinity has seen extensive development over the past decades, and a small number of important early Holocene and Pleistocene vertebrate fossils have been recovered.

Cumulative projects on this geologic unit, including all projects involving excavation into the Quaternary alluvium, could affect paleontological resources as a result of ground-disturbing activities, such as grading and excavation during construction. These include, for example, projects at 3001 Tasman Drive, City Place, 2225 Calle del Mundo, and 2232 Calle del Mundo. Also included are planning documents that would enable future development and excavation into the geologic unit (e.g., 2901 Tasman Drive, Patrick Henry Specific Plan, 4949 Great America Parkway). Therefore, a cumulative impact exists in the study area. However, implementation of Mitigation Measure GEO-6.1 would protect any paleontological resources discovered during Project construction and ensure that impacts would be less than significant, providing for identification, recovery, and curation of paleontological resources. Therefore, the Project's contribution to a cumulative impact on paleontological resources would not be considerable, and the cumulative impact would be ***less than significant with mitigation***.

Operation

There would be no impact on paleontological resources during operation of any cumulative project or the Project; any impact on paleontological resources would occur during the construction phase of the Project. Therefore, there would be ***no impact*** during operation under cumulative conditions, and no mitigation would be necessary.

3.10 Hydrology and Water Quality

This section describes the existing regulatory and environmental conditions related to hydrology and water quality within and around the Mission Point Project (Project) site and evaluates the potential for impacts with respect to hydrology and water quality that would result from implementation of the Project.

Comments pertaining to hydrology and water quality were received in response to the Notice of Preparation (NOP) (Appendix 1). Comments received from the Santa Clara Valley Water District (Valley Water) include the following:[1]

- The proposal would allow a substantial net increase in the number of residential dwelling units, the amount of commercial space, and the number of public parks; therefore, a Water Supply Assessment (WSA) would be required to be prepared by the City of Santa Clara (City) and incorporated into the Environmental Impact Report (EIR) to evaluate potential impacts on the future water supply. Valley Water is the Groundwater Sustainability Agency for Santa Clara County groundwater basins and responsible for wholesale water supplies. Valley Water prepares for future water demands through its Water Supply Master Plan, last adopted in 2019. One component of the Water Supply Master Plan is expanding water conservation and demand management efforts. This includes implementing a Model Water Efficiency New Development Ordinance (MWENDO), which has been developed with cities and other stakeholders in the county. Valley Water is calling on all municipalities to adopt the MWENDO to help ensure new developments meet strong water efficiency standards to extend the region's water supplies. Valley Water requests an opportunity to review the draft WSA prepared by the City to comment on its consistency with countywide water supply planning efforts, especially if future growth will be relying on the groundwater basin, which is managed by Valley Water.
- To reduce or avoid impacts on the water supply, the City and Project Sponsor should implement specific measures from the MWENDO, including:
    - Install hot-water recirculation systems;
    - Install graywater dual-distribution plumbing;
    - Incorporate alternative water sources (e.g., cisterns) and recycled water connections as feasible;
    - Install pool and spa covers;
    - Encourage reuse of recycled water, graywater, and rainwater/stormwater in new development and remodels through the installation of dual plumbing for irrigation, toilet flushing, cooling towers, and other non-potable uses;
    - Require dedicated landscape meters where applicable;
    - Require installation of separate submeters to each unit in multi-family developments and individual spaces within commercial buildings to encourage efficient water use; and
    - Install weather- or soil-based irrigation controllers.

[1] Valley Water. May 23, 2022—letter to Ms. Rebecca Bustos, City of Santa Clara, Subject: Planning Division Notice of Preparation of an Environmental Impact Report – 3005 Democracy Way: Mission Point (Files: PLN2017-12924, PLN2018-13400, PLN21-15386, and PLN21-15387).

- The Project proposes basements and underground parking. However, the Project area is known to have shallow groundwater. Therefore, dewatering may be required during construction. Impacts related to the quality and quantity of shallow groundwater should be evaluated. Development should be designed so that the volume and duration of dewatering are minimized to the greatest extent possible, and underground structures should be designed with waterproofing that avoids the need for permanent dewatering after construction is complete.
- Valley Water records indicate that there are eight active wells on the Project site. If current active wells will continue to be used following development of the Project site, they must be protected so that they do not become lost or damaged during construction. If the wells will not be used following development of the site, they must be properly destroyed under permit from Valley Water. Although Valley Water has records for most wells in the county, it should be noted that it is always possible that a well exists that is not in Valley Water's records. All wells found at the Project site must be destroyed or registered with Valley Water, as noted above.
- Current Federal Emergency Management Agency (FEMA) maps show that a portion of the Project site is within Zone AO and subject to flood depths of 1 foot (usually in areas of ponding). Please reference FEMA Flood Insurance Rate Map (FIRM) Panel 06085C0063H, effective May 18, 2009. Design measures should be incorporated into the development to reduce the impervious area and provide detention to mitigate increased runoff due to development.

The potential for the Project to affect groundwater supply/quality and stormwater runoff/flooding is discussed below.

Existing Conditions

Regulatory Setting

Federal

Clean Water Act

The federal Clean Water Act of 1972 is the primary federal law that protects the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. The Clean Water Act, which is administered by the U.S. Environmental Protection Agency (EPA), operates on the principle that all discharges into the nation's waters are unlawful unless specifically authorized by a permit. EPA has delegated its authority to implement and enforce most of the applicable water quality provisions of this law to the individual states. In California, the provisions are enforced by nine regional water boards under the auspices of the State Water Resources Control Board (State Water Board).

National Pollutant Discharge Elimination System Permit Program

Under Section 402 of the Clean Water Act, the discharge of pollutants through a point source into waters of the United States is prohibited unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The NPDES program regulates the discharge of pollutants from municipal and industrial wastewater treatment plants and sewer collection systems as well as stormwater discharges from industrial facilities, municipalities, and construction sites. In California, implementation and enforcement of the NPDES program is conducted through the State Water Board and the nine regional water boards. The regional water boards set standard conditions, including effluent limitations and monitoring programs, for each permittee in their region.

National Flood Insurance Program

In 1968, Congress created the National Flood Insurance Program (NFIP) in response to the rising cost of taxpayer-funded disaster relief for flood victims and the increasing amount of damage caused by floods. The NFIP makes federally backed flood insurance available for communities that agree to adopt and enforce floodplain management ordinances to reduce future flood damage. FEMA manages the NFIP and creates FIRMs that designate 100-year flood hazard zones and delineate other flood hazard areas. The NFIP is intended to encourage state and local governments to adopt responsible floodplain management programs and flood measures.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) (California Water Code, Division 7, Water Quality) was promulgated in 1969. It established the State Water Board and divided California into nine hydrologic regions, each overseen by a regional water board. The State Water Board is the primary State of California (State) agency responsible for protecting the quality of the California's surface and groundwater supplies, but much of its daily implementation authority is delegated to the nine regional water boards. The Porter-Cologne Act also provides for development and tri-annual review of Water Quality Control Plans that designate beneficial uses of California's major rivers and groundwater basins and establish narrative and numerical water quality objectives for those waters. The Project site is within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (SFRWQCB), which enforces compliance with water quality objectives for beneficial uses of surface waters.

NPDES Construction General Permit

Construction projects disturbing more than 1 acre of land are required to comply with the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit).[2] To obtain coverage under the Construction General Permit, a project applicant must provide, via electronic submittal, a Notice of Intent, a Stormwater Pollution Prevention Plan (SWPPP), and other documents required by Attachment B of the Construction General Permit. Activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground, such as grubbing or excavation. The permit also covers linear underground and overhead projects, such as pipeline installations. Construction General Permit activities are regulated at a local level by the SFRWQCB.

The Construction General Permit uses a risk-based permitting approach and mandates certain requirements, based on the project risk level (i.e., Level 1, Level 2, or Level 3). The project risk level is based on the risk of sediment discharge and the receiving water risk. The sediment discharge risk depends on the project location and timing (i.e., wet-season versus dry-season activities). The receiving water risk depends on whether a project would discharge to a sediment-sensitive receiving water. The determination of project risk level would be made by a project applicant when the Notice of Intent is filed (and more details of the timing of the construction activity are known).

[2] The current Construction General Permit was issued under Order No. 2009-0009-DWQ, NPDES No. CAS000002. A new Construction General Permit (Order No. WQ 2022-0057-DWQ, NPDES No. CAS000002) was adopted on September 8, 2022, which will become effective on September 1, 2023. The current and new Construction General Permit include the same requirements discussed in this section.

According to the performance standard in the Construction General Permit, dischargers shall minimize pollutants or prevent them from occurring in stormwater discharges and authorized non-stormwater discharges through the use of controls, structures, and best management practices (BMPs) that employ Best Available Technology for the treatment of toxic and non-conventional pollutants and Best Conventional Technology for the treatment of conventional pollutants. A SWPPP must be prepared by a Qualified SWPPP Developer who meets the certification requirements in the Construction General Permit. The purpose of the SWPPP is to (1) identify the sources of sediment and other pollutants that could affect the quality of stormwater discharges and (2) describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater as well as non-stormwater discharges resulting from construction activity. Operation of BMPs must be overseen by a Qualified SWPPP Practitioner who meets the requirements outlined in the permit.

The SWPPP must also include a construction site monitoring program. Depending on the project risk level, the monitoring program may include visual observations of site discharges, monitoring of site discharges (pH, turbidity, and non-visible pollutants, if applicable), and receiving water monitoring (pH, turbidity, suspended sediment concentration, and bioassessment).

The Construction General Permit allows a non-stormwater discharge of groundwater dewatering effluent if the water is properly filtered and treated to remove sediment and pollutants using appropriate technologies such as filtration, settling, coagulant application with no residual coagulant discharge, minor odor or color removal with activated carbon, small-scale peroxide addition, or other minor treatment. Testing of receiving waters would also be required prior to and during the discharge. The discharge of dewatering effluent is authorized under the Construction General Permit if the following conditions are met:

- The discharge does not cause or contribute to a violation of any water quality standard,
- The discharge does not violate any other provision of the Construction General Permit,
- The discharge is not prohibited by the applicable Basin Plan,
- The discharger has included and implemented specific BMPs required by the Construction General Permit to prevent or reduce the contact of the non-stormwater discharge with construction materials or equipment,
- The discharge does not contain toxic constituents in toxic amounts or (other) significant quantities of pollutants,
- The discharge is monitored and meets the applicable numeric action levels, and
- The discharger reports the sampling information in the annual report.

If any of the above conditions are not satisfied, the discharge of dewatering effluent is not authorized by the Construction General Permit. If the dewatering activity is deemed by the SFRWQCB not to be covered by the Construction General Permit or other NPDES permit and a discharge of groundwater to the storm drain system is planned, then the discharger is required to prepare a Report of Waste Discharge. If approved by the SFRWQCB, the discharger will be issued site-specific Waste Discharge Requirements (WDRs) under NPDES regulations.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act requires local agencies to form groundwater sustainability agencies (GSAs) for high- and medium-priority basins and develop and implement

groundwater sustainability plans to avoid undesirable results, mitigate overdraft, and reach sustainability within 20 years of implementing their sustainability plans. The California Department of Water Resources (DWR) is charged with classifying groundwater basins in California as either high, medium, low, or very low priority. The Santa Clara Subbasin is classified by DWR as a high-priority basin that is not critically overdrafted. Valley Water is the GSA for the Santa Clara Subbasin and oversees the preparation and implementation of the Groundwater Management Plan (GMP) for the Santa Clara and Llagas Subbasins.[3]

California Water Code Section 6161

The California Water Code entrusts dam safety regulatory authority to the Department of Water Resources, Division of Safety of Dams (DSOD), which provides oversight of the design, construction, and maintenance of approximately 1,250 non-federally owned dams within its jurisdiction. DSOD inspects jurisdictional dams to assess if the dams and their related structures (e.g., gated spillways, saddle dams) are safe for continued use and performing as intended. After inspection and review, DSOD may direct dam owners to make necessary repairs. DSOD conducts independent engineering analyses to validate proposed designs of dam repairs, alterations, enlargements, new dam construction, and removals that are submitted by dam owners or their consultants. DSOD reevaluates existing dams as changes in the state of practice occur that could affect dam safety. When necessary, DSOD may immediately direct a dam owner to implement the remedial means necessary to protect life and property; alternatively, DSOD may impose a reservoir restriction that limits the reservoir's water surface level until repairs or remediation work is completed.

Regional and Local

Valley Water GMP

Valley Water is an independent special district that provides a wholesale water supply, groundwater management, flood protection, and stream stewardship for its service area, which includes all of Santa Clara County. Valley Water manages the groundwater underlying the Santa Clara and Llagas Subbasins. In November 2021, Valley Water adopted the current GMP for the Santa Clara and Llagas Subbasins. The goals of the GMP are to optimize the water supply reliability, minimize additional land subsidence, and protect the groundwater supply from potential contamination and sea water intrusion.

Annual groundwater pumping far exceeds what is replenished naturally; therefore, Valley Water ensures water supply reliability with its managed recharge program. Valley Water replenishes groundwater with imported water and surface runoff captured in 10 local reservoirs. Recharge facilities include more than 300 acres of recharge ponds and more than 90 miles of creeks. Valley Water coordinates with land use agencies to review certain EIRs, land use proposals (e.g., general plans), and WSAs to ensure alignment with Valley Water's policies, water supply goals, and planning assumptions.[4]

San Francisco Bay Municipal Regional Stormwater Permit

Pursuant to Section 402 of the Clean Water Act and the Porter-Cologne Act, municipal stormwater discharges in the city are regulated under the SFRWQCB's Municipal Regional Stormwater NPDES Permit,

[3] Santa Clara Valley Water District. 2021. *2021 Groundwater Management Plan for the Santa Clara and Llagas Subbasins.* November.

[4] Ibid.

Order No. R2-2022-0018, NPDES Permit No. CAS612008 (MRP).[5] The MRP is overseen by the SFRWQCB; local municipalities (the permittees) are responsible for ensuring compliance with the MRP.

Provision C.3 of the MRP addresses post-construction stormwater management requirements for regulated projects, which are new development and redevelopment projects that create or replace 10,000 square feet or more of impervious surface, and special land use categories that create or replace 5,000 square feet or more of impervious surface. Where a redevelopment project results in an alteration of more than 50 percent of the impervious surface of a previously existing development that was not subject to Provision C.3, the entire project, consisting of all existing, new, and/or replaced impervious surfaces, must be included in the treatment system design (i.e., stormwater treatment systems must be designed and sized to treat stormwater runoff from the entire redevelopment project). Provision C.3 requires regulated projects to implement practices that encompass low-impact development (LID), source control, site design, and stormwater treatment. LID employs principles such as preserving and recreating natural landscape features and minimizing impervious surfaces to create a functional and appealing site drainage system that treats stormwater as a resource rather than a waste product. Methods used to adhere to the LID principles rely on rain barrels and cisterns, permeable pavement, preservation of undeveloped open space, and biotreatment through rain gardens, bioretention areas, bioswales, and planter/tree boxes.

Provision C.3.g of the MRP pertains to hydromodification management, which requires regulated projects that create or replace 1 acre or more of impervious surface and increase impervious surface compared to pre-project conditions to ensure that stormwater discharges from the project do not cause an increase in the erosion potential of the receiving stream over the existing condition. Regulated projects that are located in catchments or subwatersheds that are highly developed (i.e., 70 percent impervious) or that drain to hardened channels, enclosed pipes, or tidally influenced channels are exempt from hydromodification requirements.

Santa Clara Valley Urban Runoff Pollution Prevention Program

The Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) is an association of 13 cities and towns in the Santa Clara Valley, together with the County of Santa Clara and Valley Water, that are regulated under the MRP to discharge stormwater to South San Francisco Bay. The SCVURPPP assists its members with maintaining compliance with the MRP and promotes stormwater pollution prevention within that context. Participating agencies, including the City, must meet the provisions of the MRP by ensuring that new development and redevelopment mitigate water quality impacts on stormwater runoff both during the construction and operation of projects.[6]

The SCVURPPP has also developed the *C.3 Stormwater Handbook*[7] to help members comply with Provision C.3 of the MRP. Specifically, developers, builders, and project applicants must include appropriate post-construction stormwater controls in their projects to meet local municipal requirements and requirements of the MRP.

[5] San Francisco Bay Regional Water Quality Control Board. 2022. *San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, NPDES Permit No. CAS612008.* May 11.

[6] Santa Clara Valley Urban Runoff Pollution Prevention Program. 2019. *Santa Clara Basin Stormwater Resource Plan, Final.* August.

[7] Santa Clara Valley Urban Runoff Pollution Prevention Program. 2016. *C.3 Stormwater Handbook, Guidance for Implementing Stormwater Requirements for New Development and Redevelopment Projects.* June.

Santa Clara City Code

Chapter 13.10, Sewers, of the City Code includes requirements to prevent the introduction of pollutants into the sanitary sewer system, pollutants that could pass through the San José/Santa Clara Water Pollution Control Plant and interfere with its treatment ability. This includes requirements to protect the physical structures of the sanitary sewer system and the efficient functioning of its component parts. Section 13.10.170 states that no person may discharge any substances directly into a manhole or other opening to a City sewer other than a City-approved sewer connection. Section 13.10.210 requires dischargers to implement pretreatment measures or other measures to reduce objectionable characteristics, contents, or rates of discharge for water or waste being deposited into the sanitary sewer system to prevent damage to or interference with the system. Section 13.10.230 indicates that no person may discharge any stormwater, surface water, groundwater, subsurface drainage, or roof runoff into the sanitary sewer system without a wastewater discharge permit or prior authorization from the City. This section also indicates that a wastewater discharge permit for the discharge of groundwater, subsurface drainage, surface water, roof water, or stormwater shall be issued only if there is no reasonable alternative method for disposal of such water. Section 13.10.310 defines the discharge limits for interfering substances.

Chapter 13.20, Storm Drains and Discharges, of the City Code was enacted for the protection of health, life, resources, and property through the prevention and control of unauthorized discharges into watercourses. The primary goal of this chapter is the cleanup of stormwater pollution from urban runoff that flows to creeks and channels, eventually discharging into South San Francisco Bay. Chapter 13.20 prohibits discharges to the City's storm drain systems other than rainfall runoff or discharges expressly permitted by City and NPDES permits that would not cause any impairment to the beneficial uses or quality of water.

Chapter 15.45 of the City Code adopts the Flood Damage Prevention Code, 1987 edition, which requires that a building or grading permit be obtained before any construction or development begins within any area of special flood hazard, as defined by FEMA. Applications for permits must include 1) plans showing the nature, location, dimensions, and elevation of the area in question and 2) information regarding existing or proposed structures, fill, material storage, and drainage facilities and their locations/elevations. The Director of Planning and Inspection and his designee, the Building Official, are appointed as the Floodplain Administrator to review development applications for special flood hazard areas and grant or deny permits in accordance with code requirements. Such requirements include ensuring that the proposed development does not adversely affect[8] the carrying capacity of areas where base flood elevations have been determined and a floodway has not been designated. When base flood elevation data have not been provided, the Floodplain Administrator must obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source in order to administer the code, and any such information must be submitted to the City Council for adoption. The Flood Damage Prevention Code also describes construction standards for special flood hazard zones, including requirements for anchoring; the use of construction materials, methods, and utility systems that are resistant to flood damage; and adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures. The requirements also call for placing the lowest floor elevations at or above base flood elevations and floodproofing non-residential structures that extend below the base flood elevation.

[8] The Flood Damage Prevention Code defines "adversely affects" as meaning that the cumulative effect of the proposed development when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood more than 1 foot at any point.

Section 17.05.610 of the City Code requires stormwater runoff from a subdivision to be collected and conveyed by an approved storm drain system. The storm drain system must be designed for ultimate development of the watershed and provide for the protection of abutting and offsite properties that would be adversely affected by any increase in runoff attributed to the development. Offsite storm drain improvements may be required to satisfy this requirement.

City of Santa Clara General Plan

City of Santa Clara General Plan (General Plan) policies applicable to hydrology and water quality include the following:[9]

- *Policy 5.10.4-P1*: Promote water conservation through development standards, building requirements, landscape design guidelines, education, compliance with the State Water Conservation Landscaping Ordinance, incentives, and other applicable citywide policies and programs.
- *Policy 5.10.4-P2*: Expand water conservation and reuse efforts throughout the city in order to meet the conservation goals in the City's adopted Urban Water Management Plan and CAP to reduce per capita water use by 2020.
- *Policy 5.10.4-P3*: Promote water conservation, recycled water use, and sufficient water importation to ensure an adequate water supply.
- *Policy 5.10.4-P4*: Require an adequate water supply and water quality for all new development.
- *Policy 5.10.4-P5*: Prohibit new development that would reduce water quality below acceptable State and local standards.
- *Policy 5.10.4-P6*: Maximize the use of recycled water for construction, maintenance, irrigation, and other appropriate applications.
- *Policy 5.10.4-P7*: Require installation of native and low-water-consumption plant species when landscaping new development and public spaces to reduce water usage.
- *Policy 5.10.4-P8*: Require all new development within a reasonable distance of existing or proposed recycled water distribution systems to connect to the system for landscape irrigation.
- *Policy 5.10.4-P9*: Work with Santa Clara Valley Water District to improve the Santa Clara Distributary.
- *Policy 5.10.4-P10*: Work with Santa Clara Valley Water District to minimize undesirable compaction of aquifers and subsidence of soils.
- *Policy 5.10.4-P11*: Require that any unused wells be abandoned properly.
- *Policy 5.10.4-P12*: Encourage diversion of runoff from downspouts and replacement of hardscapes to landscaped areas and permeable surfaces.
- *Policy 5.10.5-P10*: Support efforts by the Santa Clara Valley Water District to reduce subsidence.
- *Policy 5.10.5-P11*: Require that new development meet stormwater and water management requirements in conformance with State and regional regulations.
- *Policy 5.10.5-P12*: Continue to participate in the National Flood Insurance Program and encourage all property owners within flood hazard areas to carry flood insurance.

[9] City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan*. Chapter 5: Goals and Policies. Available: http://santaclaraca.gov/home/showdocument?id=13934. Accessed: October 25, 2022.

- *Policy 5.10.5-P13*: Require that development complies with the Flood Damage Protection Code.
- *Policy 5.10.5-P14*: Coordinate with the Federal Emergency Management Agency to ensure appropriate designation and mapping of floodplains.
- *Policy 5.10.5-P15*: Require new development to minimize paved and impervious surfaces and promote on-site best management practices for infiltration and retention, including grassy swales, pervious pavement, covered retention areas, bioswales, and cisterns, to reduce urban water run-off.
- *Policy 5.10.5-P16*: Require new development to implement erosion and sedimentation control measures to maintain an operational drainage system, preserve drainage capacity, and protect water quality.
- *Policy 5.10.5-P17*: Require that grading and other construction activities comply with the Association of Bay Area Governments' Manual of Standards for Erosion and Sediment Control Measures and with the California Stormwater Quality Association (CASQA), Stormwater Best Management Practice Handbook for Construction.
- *Policy 5.10.5-P18*: Implement the Santa Clara Valley Nonpoint Source Pollution Control Program, Santa Clara Valley Urban Runoff Pollution Prevention Program, and the Urban Runoff Management Plan.
- *Policy 5.10.5-P19*: Limit development activities within riparian corridors to those necessary for improvement or maintenance of stream flow.
- *Policy 5.10.5-P20*: Maintain, upgrade, and replace storm drains throughout the city to reduce potential flooding.
- *Policy 5.10.5-P21*: Require that storm drain infrastructure is adequate to serve all new development and is in place prior to occupancy.

Environmental Setting

Surface Water

Watershed Hydrology

The Project site is within the San Tomas Aquino watershed, which covers an area of approximately 45 square miles. San Tomas Aquino Creek originates in the forested foothills of the Santa Cruz Mountains and flows in a northerly direction through the city, including an area approximately 0.5 mile east of the Project site, before flowing into Guadalupe Slough and then South San Francisco Bay. Most of the San Tomas Aquino watershed is developed as high-density residential neighborhoods, with additional areas developed for commercial and industrial uses. The majority of the San Tomas Aquino Creek channel has been modified and lined with concrete (from the Smith Creek confluence in the upper reaches downstream to US 101).[10] The segment of Calabazas Creek immediately northwest of the Project site as well as San Tomas Aquino Creek to the east are tidally influenced areas.[11]

[10] Santa Clara Valley Urban Runoff Pollution Prevention Program. 2019. *Santa Clara Basin Stormwater Resource Plan, Final. August*.

[11] San Francisco Estuary Institute. 2019. *West Valley Watershed Assessment 2018: Baseline Ecological Condition Assessment of Southwest San Francisco Bay Creeks in Santa Clara County; Calabazas, San Tomas Aquino, Saratoga, Sunnyvale East and West.* May.

Local Drainage

The Project site is currently covered by approximately 24.5 acres of impervious surfaces (pavement and roofs), approximately 20.8 acres of pervious crushed aggregate, and approximately 3.4 acres of pervious landscaping. [12] The total stormwater runoff discharge rate from the Project site was estimated to be 7.79 cubic feet per second, based on a rainfall intensity of 0.2 inch per hour,[13] which is the rainfall intensity rate that may be used for the design of stormwater treatment systems, in accordance with the SCVURPPP's *C.3 Stormwater Handbook.*

The City owns and maintains the storm drainage system that serves the Project site. The Project site currently drains into storm drain lines in Tasman Drive, Democracy Way, Patrick Henry Drive, and Old Ironsides Drive that discharge into San Tomas Aquino Creek. The Tasman Drive storm drain line is a 36-inch-diameter line east of the Patrick Henry Drive intersection that transitions to a 42-inch-diameter line and then a 48-inch diameter line prior to reaching Old Ironsides Drive. This storm drain line continues as a 48-inch-diameter line to the east, toward Great America Parkway, and ultimately discharges into San Tomas Aquino Creek. The Patrick Henry Drive storm drain line is a 24-inch-diameter line that transitions to a 36-inch diameter line as it continues northward. The storm drain line then continues east beneath Democracy Way and transitions from a 36-inch-diameter line to a 42-inch-diameter line and then to a 48-inch-diameter line. The storm drain line then continues north to Old Ironsides Drive where the 48-inch-diameter line connects with the 48-inch-diameter Tasman Drive line. In addition, there is a 24-inch-diameter line in the southern portion of Old Ironsides Drive that continues south toward the Old Glory Lane intersection where it transitions to a 27-inch-diameter line and runs east beneath Old Glory Lane, ultimately discharging into San Tomas Aquino Creek.[14]

Surface Water Quality

The quality of surface water and groundwater in the Project vicinity is affected by past and current land uses as well as the composition of geologic materials in the area. The State Water Board and nine regional water boards regulate the quality of surface water and groundwater throughout California. The Project site is within the jurisdiction of the SFRWQCB, which is responsible for implementing the San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan).[15] The Basin Plan establishes beneficial water uses for waterways, water bodies, and groundwater within the region and is a master policy document for managing water quality in the region.

San Tomas Aquino Creek is listed in the Basin Plan as providing beneficial uses that include warm and cold freshwater habitats, wildlife habitat, the preservation of rare and endangered species, and water contact and noncontact recreation. Guadalupe Slough is listed in the Basin Plan as providing beneficial uses that include estuarine habitat, the preservation of rare and endangered species, wildlife habitat, and water contact and noncontact recreation. South San Francisco Bay is listed in the Basin Plan as providing beneficial uses that include industrial service supply, commercial and sport fishing, shellfish harvesting, estuarine habitat, fish migration, the preservation of rare and endangered species, fish spawning, wildlife habitat, water contact and noncontact recreation, and navigation.[16]

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[12] BKF Engineers. 2022. *Existing Stormwater Plan and Proposed Stormwater Plan, Mission Point*. December 16.

[13] Ibid.

[14] Kylli. 2023. *Mission Point by Kylli, Rezoning Application*. April.

[15] San Francisco Bay Regional Water Quality Control Board, 2023. *San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan).* Incorporating all amendments as of March 7.

[16] Ibid.

Under Section 303 (d) of the Clean Water Act (described under *Regulatory Setting*), states must present EPA with a list of "impaired water bodies," defined as those water bodies that do not meet water quality standards, which, in some cases, results in the development of a total maximum daily load (TMDL). On a broad level, the TMDL process leads to a "pollution budget," designed to restore the health of a polluted body of water. The TMDL process provides a quantitative assessment of the sources of pollution contributing to a violation of the water quality standards and identifies the pollutant load reductions or control actions needed to restore and protect the beneficial uses of the impaired water body.

The SFRWQCB's Section 303 (d) list identifies the segment of San Tomas Aquino Creek near the Project site as Saratoga Creek, which is one of the major tributaries to San Tomas Aquino Creek, and indicates that it is impaired by the pesticide diazinon and by trash, with a TMDL established for diazinon but not for trash. Guadalupe Slough is listed as impaired by toxicity, and South San Francisco Bay is listed as impaired for several pollutants, including pesticides (e.g., chlordane, DDT, dieldrin), dioxins, furans, invasive species, mercury, and polychlorinated biphenyls (PCBs). TMDLs have been established for mercury and PCBs and will ultimately be prepared for other pollutants affecting San Francisco Bay.[17]

Groundwater

Hydrogeology

The Project site is located within the Santa Clara Subbasin of the Santa Clara Valley Groundwater Basin. The Santa Clara Subbasin covers a surface area of 297 square miles and forms a northwest-trending, elongated valley bounded by the Santa Cruz Mountains to the west and the Diablo Range to the east. The Santa Clara Subbasin is a trough-like depression filled with Quaternary alluvium deposits of unconsolidated gravel, sand, silt and clay that eroded from adjacent mountain ranges by flowing water and were deposited into the valley. Because of different hydrogeologic, land use, and water supply management characteristics, the Santa Clara Subbasin is further divided into two groundwater management areas: the Santa Clara Plain, which encompasses the majority of the Santa Clara Subbasin, including the city and surrounding areas, and covers 280 square miles, and the much smaller Coyote Valley, located southeast of San José and covering 17 square miles. Groundwater within the Santa Clara Subbasin is generally found within aquifers, consisting of high-permeability sand and gravel layers interbedded between low-permeability clay and silt layers. The low-permeability layers confine the aquifers and limit the migration of groundwater between aquifers. Recharge within the Santa Clara Subbasin generally occurs along the margins and southern portion of the subbasin where coarse-grained sediments dominate. The recharge area includes the alluvial fan and fluvial deposits along the edge of the subbasin where high lateral and vertical permeability allow surface water to infiltrate the aquifers. The percolation of surface water in recharge areas replenishes unconfined groundwater within the recharge area and contributes to the recharge of principal aquifers in the confined area through subsurface flow. The Project site is within the confined area in the north-central portion of the Santa Clara Subbasin.[18] Shallow groundwater has been measured at depths of approximately 5 to 14 feet below ground surface at the Project site. Shallow groundwater levels are expected to fluctuate, depending on rainfall and seasonal conditions. [19]

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[17] State Water Resources Control Board. 2018. *Final 2018 California Integrated Report (Clean Water Act Section 303[d] List/305[b] Report).* Available: https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2018_integrated_report.html, Accessed: December 9, 2022.

[18] Santa Clara Valley Water District. 2021. *Groundwater Management Plan for the Santa Clara and Llagas Subbasins.* November.

[19] Langan. 2022. *Updated Preliminary Geotechnical Evaluation, 3005 Democracy Way, Santa Clara, California*. May 25.

The thickness of aquifer materials in the Santa Clara Plain ranges from about 150 feet near the Coyote Narrows to more than 1,500 feet in the interior of the subbasin. The alluvium thins toward the western and eastern edges of the Santa Clara Plain. The central portion of the Santa Clara Plain contains a laterally extensive low-permeability aquitard that restricts the vertical flow of groundwater. This major aquitard varies in thickness from 20 to 100 feet and typically occurs at depths between 100 to 200 feet below ground surface, separating shallow and principal aquifer zones. The term "shallow aquifer zone" generally refers to aquifers that occur within 150 feet of the ground surface, while principal aquifer zones generally occur at depths below 150 feet. Generally, a shallow aquifer is not used for water supply. The primary confined aquifers exist at depths between 200 and 1,000 feet.[20]

Historical groundwater pumping in the Santa Clara Valley resulted in a decline in groundwater levels of as much as 200 feet. Fluid pressure in the aquifers was reduced, resulting in the compression of fine-grained materials (e.g., clays) and a broad sagging of the land surface, known as subsidence. Approximately 6 feet of inelastic (permanent) subsidence was observed in the Project area between 1934 and 1967. Minor subsidence and recovery due to seasonal variation in groundwater levels is considered elastic subsidence. Valley Water monitors subsidence in the Santa Clara Subbasin and has established an acceptable subsidence rate of no more than 0.01 feet per year, based on a multi-year average. [21]

Groundwater Quality

The Santa Clara Subbasin is listed in the Basin Plan as providing beneficial uses for groundwater (e.g., municipal, process, industrial, agricultural supply).[22] Groundwater in the Santa Clara Plain is typically of very good quality, with infrequent detections of water-quality parameters above California's health-based Maximum Contaminant Levels for drinking water. Because of historic high levels of groundwater pumping and land subsidence, saltwater intrusion has been observed in the shallow aquifer of the Santa Clara Plain. Saltwater intrusion in the shallow aquifer zone of the Santa Clara Plain is largely attributed to the incursion of water from San Francisco Bay into the tidal reaches of creeks and subsequent transport to shallow groundwater through streambed percolation. This saltwater intrusion was exacerbated by land subsidence, which decreased the elevation of the land surface adjacent to San Francisco Bay, causing further inland movement along tidal creeks. The degree of saltwater intrusion in the shallow aquifer zone is assessed by the chloride content in monitoring wells located in the Baylands area adjacent to southern San Francisco Bay. Valley Water uses a chloride concentration of 100 milligrams per liter (mg/L) to indicate the first sign of influence from saltwater. Chloride concentrations of at least 100 mg/L were estimated to be present in the shallow aquifer in the Project area in 2019. Historically, saltwater intrusion is a minimal threat to groundwater supply because the principal aquifer zone is protected by the regional aquitard, and chloride concentrations in the principal aquifer are relatively low beneath much of the shallow aquifer zone that has been affected by saltwater intrusion. The relatively minor saltwater intrusion into the principal aquifer zone is believed to be due to historic saltwater intrusion and inter-aquifer transfer through improperly constructed or destroyed wells. Saltwater migration through improperly constructed or destroyed wells presents the greatest risk to groundwater quality in the principal aquifer zone. [23]

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[20] Santa Clara Valley Water District. 2021. *Groundwater Management Plan for the Santa Clara and Llagas Subbasins.* November.

[21] Ibid.

[22] San Francisco Bay Regional Water Quality Control Board. 2023. *San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan).* Incorporating all amendments as of March 74.

[23] Santa Clara Valley Water District. 2021. *Groundwater Management Plan for the Santa Clara and Llagas Subbasins.* November.

As discussed in Section 3.11 *Hazards and Hazardous Materials,* subsurface investigations completed at the Project site between 1989 and 1994 identified relatively low levels of volatile organic compounds (VOCs) in groundwater, including Freon 113, 1,1-dichlroroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), 1,1,1-trichloroethane (1,1,1-TCA), and chloroform. In 1994, the SFRWQCB reportedly issued a case closure letter for the contamination identified at the Project site and required all groundwater monitoring wells to be properly closed. In 1995, the monitoring wells were reportedly destroyed under permits from Valley Water. During a subsurface investigation performed at the Project site in 2016, VOCs were not detected in the groundwater samples; however, relatively low levels of total petroleum hydrocarbons (TPH) of diesel and motor oil were detected in two groundwater samples.

During a subsurface investigation of the Project site in 2020, VOCs, including 1,1-DCE and acetone, were detected in groundwater, at concentrations below the SFRWQCB's Tier 1[24] Environmental Screening Levels (ESLs). [25]

Flooding

FEMA Flood Zones

The majority of the Project site is mapped by FEMA as being in Zone X, which are areas protected by levees from the 1-percent-annual-chance flood (also known as a 100-year flood hazard zone). FEMA mapping indicates that levees along Calabazas Creek and San Tomas Aquino Creek contain the 1-percent-annual-chance flood discharge within the creek channels in the vicinity of the Project site. The area of Democracy Way within the Project site and two areas within Old Ironsides Drive adjacent east of the Project site are mapped by FEMA as being in Zone AO, a special flood hazard area subject to inundation by the 1-percent-annual-chance flood, usually sheet flow on sloping terrain, with a flooding depth of 1 foot.[26]

Work is in progress to update the FIRMs for Santa Clara County. A Preliminary FIRM for the Project area was issued by FEMA on July 8, 2015, which presents updated FEMA flood mapping and reflects planned adjustments to the FIRM. In the area of the Project site, the Preliminary FIRM is equivalent to the Effective FIRM issued in 2009, which is discussed above.[27]

Sea-Level Rise

In 2019, a sea-level rise (SLR) study[28] was prepared to evaluate existing terrain elevations and potential flood levels for the Project site and summarize current and future floodwater levels, based on SLR projections for the region. Three sources of potential flooding were considered in the analysis, which included:

- Fluvial flooding from Calabazas Creek and San Tomas Aquino Creek,
- Precipitation runoff (localized), and
- Coastal flooding from South San Francisco Bay.

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[24] Tier 1 ESLs are the most conservative ESLs established by the San Francisco Bay Regional Water Quality Control Board and account for all possible exposure pathways and receptors.

[25] Cornerstone Earth Group. 2022. *Phase I Environmental Site Assessment, 49-acre Old Ironsides Drive, Tasman Drive, Democracy Way, and Patrick Henry Drive Parcels, Santa Clara, California*. July 25.

[26] Federal Emergency Management Agency. 2009. *FIRM, Flood Insurance Rate Map, Santa Clara County, California, and Incorporated Areas, Map Number 06085C0063H*. Effective: May 18, 2009.

[27] Moffatt & Nichol. February 28, 2019—memorandum to Andrea Jones, Kylli, Inc., 3005 Democracy Way, Santa Clara, CA.

[28] Ibid.

Findings and recommendations from the SLR study are discussed below. All elevations discussed in the SLR study are referenced to the North Atlantic Vertical Datum of 1988 (NAVD 88).

According to a review of LiDAR[29] data, the elevation of the Project site decreases gradually from approximately 18 to 10 feet (south to north). This reflects a mild slope from higher ground down to South San Francisco Bay and the salt ponds located to the north.

Upstream (south) of Tasman Drive, both banks of Calabazas Creek and San Tomas Aquino Creek have FEMA-certified levees, indicating that the creeks are not a direct source of fluvial flooding at the Project site. Downstream (north) of Tasman Drive, San Tomas Aquino Creek has certified levees until State Route 237. Calabazas Creek does not have a certified levee on the east bank; the west bank has a certified levee for only a portion of the creek.

The 1-percent-annual-chance flood elevation within Calabazas Creek near the Project site was estimated at an elevation of 15 feet, assuming a flood elevation 3 feet below[30] the levee crest elevation of approximately 18 feet (flood elevations for Calabazas Creek are not indicated on the FEMA FIRM or provided in Flood Insurance Study reports). The 1-percent-annual-chance flood elevation in San Tomas Aquino Creek immediately east of the Project site is 21 feet, per the FEMA FIRM. The special flood hazard areas on and adjacent to the Project site (identified as Zone AO, with a flooding depth of 1 foot) are areas where runoff from precipitation may create ponding, with shallow flood depths usually due to sheet flow on sloping terrain. This type of localized flooding may be resolved with improved drainage and the routing of runoff to existing stormwater infrastructure.

The Project site may also be affected by flooding from San Francisco Bay. The area potentially affected by coastal flooding is categorized as Zone AE (with a base flood elevation of 11 feet); this area is on the north side of Tasman Drive. In this area, the 1-percent-annual-chance flood event reflects the water level within San Francisco Bay rising due to a combination of high tide and storm surge caused by wind shear. Floodwaters from the bay would enter from Guadalupe Slough and pass under State Route 237, resulting in flooding up to Tasman Drive near the Project site. These flood elevations would increase with SLR.

Current guidance for California recommends evaluation of SLR impacts using a scenario-based analysis. The best available science and most recent guidance is provided in the California Ocean Protection Council*'s State of California Sea-Level Rise Guidance, 2018 Update*, which was utilized for this assessment. The SLR scenario commonly adopted for planning purposes is the Medium – High Risk Aversion scenario, assuming high greenhouse gas (GHG) emissions, which has a 1-in-200 chance of unfolding. Under this scenario, the projected SLR for planning horizons is 0.8 feet by 2030, 1.9 feet by 2050, and 6.9 feet by 2100.

The SLR study indicates that flooding associated with precipitation runoff and fluvial flows does not change significantly with SLR in areas that are far enough upstream from the mouth of a creek, such as Tasman Drive for this analysis, which is more than 5 miles upstream of San Francisco Bay. The SLR study indicates that the most significant source of future flooding for the Project site would therefore be coastal flooding from San Francisco Bay, assuming that the City would continue maintaining the levees along Calabazas Creek and San Tomas Aquino Creek.

[29] LiDAR = light detection and ranging

[30] FEMA requires a minimum freeboard of 3 feet above the base flood elevation in order to certify a levee.

Dam Failure Inundation

The Project site is within the dam failure inundation area of multiple dams that are owned and operated by Valley Water, including Lenihan Dam, located south of Los Gatos; Anderson Dam, located east of Morgan Hill; and Stevens Creek Dam, located southwest of Cupertino. A failure at any of these dams (with their reservoirs at full capacity) could result in inundation depths of up to 5 feet in some areas of the Project site.[31, 32, 33]

The aforementioned dams are under the jurisdiction of DSOD, which provides oversight for the design, construction, and maintenance of many dams in California, as discussed in the *Regulatory Setting*. According to DSOD, these dams represent an extremely high downstream hazard because of the downstream population and the property at risk from potential dam failure inundation. An extremely high downstream hazard is defined by DSOD as being expected to cause considerable loss of human life or result in an inundation area with a population of 1,000 or more.[34]

Anderson Dam is rated by DSOD as being in poor condition because of a safety deficiency under normal operating conditions that requires remedial action. As a result, Anderson Dam has reservoir restrictions.[35] The findings of the original seismic stability evaluation completed in 2011 on Anderson Dam indicated that the downstream and upstream embankments could become unstable during an earthquake with a very large magnitude and that the rupture of faults underlying the dam may have adverse impacts on the outlet pipe and intake structure. A storage restriction that maintains the water level about 55 feet below the dam crest has been put in place to protect the public. Valley Water and regulatory agencies believe that this restriction will prevent an uncontrolled release of water if the dam is structurally damaged after a major earthquake.[36]

Lenihan Dam and Stevens Creek Dam are rated by DSOD as being in fair condition and have no reservoir restrictions. According to DSOD, a fair condition rating indicates that no existing dam safety deficiencies are recognized under normal operating conditions; however, rare or extreme hydrologic and/or seismic events could result in a dam safety deficiency that could require further action.[37]

Environmental Impacts

This section describes the impact analysis related to hydrology for the Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

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31 Valley Water. 2019a. *Inundation Map for the Hypothetical Fair Weather Failure of Lenihan Dam*. November.

32 Valley Water. 2019b. *Inundation Map for the Hypothetical Fair Weather Failure of Leroy Anderson Dam*. November.

33 Valley Water. 2019c. *Inundation Map for the Hypothetical Fair Weather Failure of Stevens Creek Dam*. November.

34 California Department of Water Resources. 2022. *Dams within Jurisdiction of the State of California, Listed Alphabetically by County.* September.

35 Ibid.

36 Valley Water. 2022b. *Anderson Dam and Reservoir*. Available: https://www.valleywater.org/accordion/anderson-dam-and-reservoir. Accessed: December 14, 2022.

37 Other circumstances that can result in a "fair condition" rating include a lack of maintenance that requires attention to prevent developing safety concerns, maintenance conditions that require remedial action greater than routine work and/or secondary studies or investigations, or interim or permanent risk reduction measures that may be under consideration.

Thresholds of Significance

The Project would have a significant effect if it would result in any of the conditions listed below.

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality (WQ-1 and C-WQ-1).
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project would impede sustainable groundwater management of the basin (WQ-2 and C-WQ-2).
- 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 that would:
    - Result in substantial erosion or siltation onsite or offsite (WQ-3 and C-WQ-3),
    - Substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite (WQ-3 and C-WQ-3),
    - Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff (WQ-3 and C-WQ-3), or
    - Impede or redirect floodflows (WQ-3 and C-WQ-3).
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation (WQ-4 and C-WQ-4).
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan (WQ-5 and C-WQ-5).

Methods for Analysis

The study area for hydrology and water quality is the Project site, the storm drains and creeks/surface waters that receive runoff from the Project site, areas with flooding hazards that receive runoff from the Project site, and the Santa Clara Subbasin (for groundwater). The analysis below assumes that the final designs and construction of the Project would be performed in accordance with applicable policies of the City General Plan and the requirements of applicable regulations, including the MRP, Construction General Permit, the City Code, and other federal, State, regional, and local regulations. The analysis focuses on issues related to surface water and groundwater quality, groundwater supply, drainage, and flood hazards.

Surface and Groundwater Quality. Impacts of the Project on surface water and groundwater quality were analyzed using information regarding existing surface and groundwater quality conditions, as discussed under *Environmental Setting*, and review of Project-related activities (e.g., grading and dewatering) and sources of pollution (e.g., sediment and hazardous materials) that could affect surface water and groundwater quality.

Drainage. The drainage impact analysis considered changes in impervious/pervious surfaces and drainage patterns/systems. Information on the existing impervious/pervious surfaces, runoff quantities, and drainage patterns/systems was based on maps of existing utilities and hydraulic analysis of existing conditions, as discussed under *Environmental Setting*. The analysis of changes to impervious/pervious surfaces and drainage patterns/systems was based on review of Project plans and hydraulic analysis of proposed conditions.

Groundwater Supply and Management. The analysis of potential impacts on groundwater supply and management was based on review of existing groundwater conditions and management activities, as presented in Valley Water's GMP for the Santa Clara Subbasin, as well as review of Project-related activities (e.g., construction dewatering and operational groundwater use) and development plans (e.g., changes in impervious/pervious surfaces) that could affect groundwater supply and management.

Flood Hazards. The impact analysis for flood-related hazards was based on FEMA mapping, the SLR study, and dam failure inundation maps, as discussed under *Environmental Setting*, as well as other published maps and documents that describe potential flood hazards and review of Project plans for grading and drainage systems that could alter flooding conditions.

Impacts and Mitigation Measures

Impact WQ-1: Water Quality. With implementation of mitigation, the Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. (Less than Significant with Mitigation)

Construction

The Project would involve construction activities, including excavation and grading, which can increase the potential for erosion and sedimentation from stormwater runoff and for the leaching/transport of potential contaminants from disturbed soil. Construction activities would also involve the use of construction materials, equipment, and hazardous materials that can be sources of stormwater and groundwater pollution. If stormwater contacts disturbed soil and/or improperly stored hazardous materials, sediments and contaminants could be entrained in stormwater runoff that could reach waterways and degrade water quality, potentially resulting in a violation of water quality standards.

The Project would disturb more than 1 acre of land and, therefore, would be required to comply with the requirements of the Construction General Permit. In accordance with the Construction General Permit requirements, a SWPPP would be developed and implemented to identify all potential pollutants and their sources, including a list of site-specific BMPs to reduce discharges of construction-related stormwater pollutants. The SWPPP would include a detailed description of controls to reduce pollutants and outline maintenance and inspection procedures. The SWPPP would be required to be kept onsite and be made available to SFRWQCB inspectors. Typical sediment and erosion BMPs include protecting storm drain inlets, establishing and maintaining construction exits, and implementing perimeter controls. The SWPPP would also define proper building material staging areas, paint and concrete washout areas, equipment/vehicle fueling and maintenance practices, controls for equipment/vehicle washing, and allowable non-stormwater discharges; it would also include a spill prevention and response plan. Compliance with the Construction General Permit would ensure that stormwater runoff from the Project site during construction would not result in erosion/siltation or create sources of polluted runoff that could degrade groundwater or receiving water quality.

Groundwater dewatering would be required for subsurface construction activities. Dewatering effluent could have high turbidity (i.e., suspended sediment) and could contain other contaminants. Turbid or contaminated groundwater could degrade the quality of receiving water if discharged directly to storm drains without treatment. Any groundwater discharge to the sanitary sewer system would be subject to permits from the City, in accordance with the requirements of Chapter 13.10 of the City Code, as discussed under *Regulatory Setting*, and the City of San José Environmental Services Department, which manages and operates the Regional Wastewater Facility. Furthermore, any groundwater discharge to the storm drain system would be subject to permits from the SFRWQCB.

Under existing State law, it is illegal to allow unpermitted non-stormwater discharges to receiving waters. Chapter 13.20 of the City Code also prohibits discharges to the City's storm drain systems other than rainfall runoff or discharges expressly permitted by the City and NPDES permits that would not cause any impairment in the beneficial uses or quality of water.

As stated in the Construction General Permit, non-stormwater discharges directly to receiving waters or the storm drain system have the potential to negatively affect water quality. The discharger must implement measures to control all non-stormwater discharges during construction and from dewatering activities associated with construction. Discharging any pollutant-laden water from a dewatering site or sediment basin into any receiving water or storm drain that would cause or contribute to an exceedance of water quality objectives is prohibited.[38]

The Construction General Permit allows the discharge of non-contaminated dewatering effluent if the water is properly filtered or treated, using appropriate technology. These technologies include, but are not limited to, retention in settling tanks (where sediments settle out prior to discharge of water) and filtration using gravel and sand filters (to mechanically remove the sediment). If the dewatering activity is deemed by the SFRWQCB not to be covered by the Construction General Permit due to contamination from fuels or VOCs, the discharge may be allowed under the NPDES Permit No. CAG912002, issued by the SFRWQCB under Order No. R2-2017-0048,[39] which covers the discharge or reclamation of extracted and treated groundwater resulting from the cleanup of groundwater polluted by VOCs, fuel leaks, fuel additives, and other related wastes. If the discharge is not covered by any existing general NPDES permits, then the discharger could prepare a Report of Waste Discharge and, if approved by the SFRWQCB, be issued site-specific WDRs under the NPDES regulations. Site-specific WDRs contain rigorous monitoring requirements and performance standards that, when implemented, ensure that receiving water quality is not substantially degraded.

If the water is not suitable for discharge to the storm drain (receiving water), as discussed above, dewatering effluent may be discharged to the sanitary sewer system if the discharge requirements from the City of Santa Clara and City of San José Environmental Services Department are met. These include, but are not limited to, application of pretreatment technologies that would result in achieving compliance with the wastewater discharge limits. Discharges to the sanitary sewer must occur under permit. The City of Santa Clara and City of San José Environmental Services Department manage the water they accept at their facilities, thereby ensuring proper treatment of wastewater at the Regional Wastewater Facility prior to discharge.

If it is infeasible to meet the requirements of the Construction General Permit or other general NPDES permit, acquire site-specific WDRs, or meet the discharge requirements of the City of Santa Clara or City of San José Environmental Services Department, the construction contractor would be required to transport the dewatering effluent offsite for treatment to meet discharge requirements. Thus, compliance with State, regional, and local regulations would ensure protection of surface and groundwater water quality during construction activities, and impacts would be ***less than significant.***

[38] State Water Resources Control Board. 2009. *Construction General Permit Fact Sheet, 2009-0009-DWQ, amended by 2010-0014-DWQ and 2012-0006-DWQ.* Division of Water Quality.

[39] San Francisco Bay Regional Water Quality Control Board. 2019. *Order No. R2-2017-0048, NPDES Permit No. CAG912002, General Waste Discharge Requirements for Discharge or Reclamation of Extracted and Treated Groundwater Resulting from the Cleanup of Groundwater Polluted by Volatile Organic Compounds, Fuel Leaks, Fuel Additives, and Other Related Wastes*. Effective: January 1, 2019.

Excavation dewatering activities can also affect groundwater quality by contributing to saltwater intrusion or the migration of contaminated groundwater to previously uncontaminated areas. Construction is anticipated to occur over a period of about 9 years and could require a substantial amount of excavation dewatering. However, as discussed in Section 3.9 *Geology and Soils,* the amount of excavation dewatering required could vary significantly, depending on the type of excavation shoring systems that would be utilized for the Project. For example, soldier piles with timber lagging would require extensive dewatering, while soil/cement cutoff walls would limit dewatering. The amount of dewatering that would be required for the Project is discussed further under Impact WQ-2: Groundwater Supplies*,* below. The effects of dewatering on groundwater conditions in the area surrounding the Project site would depend on the characteristics of the water-bearing zones encountered by excavation, the excavation shoring and dewatering system designs, and the duration/phasing of Project construction. The Project site is relatively close to tidally influenced areas, including the salt ponds and sloughs on the north side of State Route 237, the segment of Calabazas Creek immediately northwest of the Project site, and San Tomas Aquino Creek, which is east of the Project site.[40] As discussed under *Environmental Setting*, historic groundwater pumping and land subsidence resulted in saltwater intrusion in the shallow aquifer of the Santa Clara Plain. Furthermore, saltwater intrusion has been identified in the Project area. Therefore, dewatering at the Project site could contribute to further saltwater intrusion, which would be a ***significant*** impact related to groundwater quality.

As discussed in Section 3.11, *Hazards and Hazardous Materials,* no hazardous materials releases have been reported in the vicinity of the Project site that would be likely to significantly affect the Project site; however, several hazardous materials users are in the vicinity of the Project site. If leaks or spills occur at these facilities, contamination could affect the Project site. As discussed under *Environmental Setting*, subsurface investigations at the Project site have identified only low levels of VOCs and TPH as diesel and motor oil in groundwater at the Project site. Because of the extensive amount of excavation that would be required for the Project, some areas of subsurface contamination on the Project site could be removed during excavation activities, which would have a beneficial effect with respect to groundwater quality. In addition, subsurface contamination could be present in areas of the Project site that would not be excavated during dewatering in other areas because of the phasing of construction or because the areas would be outside of the proposed subsurface parking structures. Previously unidentified groundwater contamination could be present in areas near the Project site because of previous and existing commercial/industrial land uses in the Project area. Therefore, dewatering activities at the Project site could contribute to the migration of potentially contaminated groundwater to previously uncontaminated areas, which would be a ***significant*** impact related to groundwater quality.

MITIGATION MEASURES. Implementation of Mitigation Measure WQ-1.1 would ensure that the significant impacts related to saltwater intrusion during dewatering would be reduced to a ***less-than-significant*** level. The measure would evaluate the potential for saltwater intrusion through geotechnical analysis and modeling and require the Project to use shoring systems that would limit dewatering volumes and durations to the maximum extent possible, if necessary, by Valley Water. In addition, implementation of Mitigation Measures WQ-1.1 and HAZ-2.1 (discussed in Section 3.11, *Hazards and Hazardous Materials*) would ensure that the significant impact related to the migration of contaminated groundwater would be reduced to a ***less-than-significant*** level by ensuring that subsurface contamination at the Project site would be further investigated and remediated, if necessary, under the oversight of a regulatory agency and that modeling of the proposed dewatering activities would include an evaluation of the potential for

[40] San Francisco Estuary Institute. 2019. *West Valley Watershed Assessment 2018: Baseline Ecological Condition Assessment of Southwest San Francisco Bay Creeks in Santa Clara County (Calabazas, San Tomas Aquino, Saratoga, Sunnyvale East and West).* May.

the migration of contaminated groundwater. Implementation of Mitigation Measure HAZ-2.1 also requires preparation and implementation of a Soil and Groundwater Management Plan to address known and potential unidentified subsurface contamination that may be encountered during construction. Thus, compliance with State, regional, and local regulations and implementation of Mitigation Measures WQ-1.1 and HAZ-2.1 would ensure the protection of surface and groundwater water quality during construction activities, and impacts would be ***less than significant with mitigation.***

WQ-1.1: *Dewatering.* The Project Sponsor shall prepare a Dewatering Plan that shall be submitted to Valley Water and City for review and approval. The Dewatering Plan shall account for phasing of excavation/construction activities and include the following:

- A detailed analysis of soil formations that would be affected by excavation and dewatering activities;
- A detailed description of proposed excavation shoring systems;
- The proposed dewatering locations, flow rates, and durations that would be required, based on the soil formations present and the proposed excavation activities and shoring systems;
- The design of the proposed dewatering systems and effluent treatment systems;
- Geotechnical analysis and hydraulic modeling to demonstrate the anticipated performance of the dewatering systems and potential changes to surrounding hydrogeologic conditions, including changes in groundwater levels and flow directions, potential movement of contaminated groundwater, potential saltwater intrusion, and potential settlement due to subsidence.
- Proposed dewatering effluent discharge locations and flow rates; and
- Adequate onsite storage capacity to limit or cease dewatering discharges during times of heavy rain/flooding.

The Project shall utilize shoring systems, such as soil/cement cutoff walls, if deemed necessary by Valley Water to ensure sustainable management of the Santa Clara Subbasin, that limit dewatering volumes and durations to the maximum extent possible. The designs for the proposed shoring systems and dewatering systems as well as the Dewatering Plan shall be revised as necessary, based on comments from the City or Valley Water. The Dewatering Plan shall be approved by Valley Water and the City prior to the issuance of permits by Valley Water for the installation of dewatering wells and permits from the City for construction of shoring and dewatering systems.

Operation

The Project would intensify land uses on the Project site compared to existing conditions, which could increase the potential for pollutants of concern from vehicle traffic (e.g., fuels and lubricants, tire wear particulates, brake dust, and fallout from exhaust emissions) to be generated on the Project site and conveyed in runoff during storm events. Debris and particulates that gather on impervious surfaces such as paved areas and roofs could also add heavy metals and sediment to the pollutant load in runoff. The proposed landscaping could contain residual pesticides and nutrients used for landscape maintenance, and the intensification of land uses could also result in increased trash generation over existing conditions.

Stormwater runoff during Project operation would be subject to the requirements of the MRP because the Project would replace more than 10,000 square feet of impervious surfaces. Provision C.3 of the MRP sets

forth appropriate and site-specific source control, site design, and stormwater treatment measures for new and redevelopment projects to address both soluble and insoluble stormwater runoff pollutant discharges. The Project site is located in a catchment that drains to hardened channels and/or tidally influenced channels and is therefore exempt from hydromodification requirements.[41]

In accordance with the requirements of Provision C.3 of the MRP, the Project would include LID measures, such as bio-retention treatment areas (with underdrains); flow-through planters; tree wells with media filters; infiltration trenches (with underdrains); open spaces; catch basin filters; rainwater harvesting, with onsite re-use; and green streets, to reduce runoff pollutant loads. The total area that could be treated by a media filter, if any, would need to be determined with submittal of the Provision C.3 data form as part of the Project clearance committee review.[42] Stormwater runoff from the Project site is not treated under existing conditions; therefore, development of the Project in compliance with the MRP would have a beneficial effect on the quality of stormwater runoff from the Project site.

Valley Water has indicated that, according to its records, there are eight active wells on the Project site. If the wells will not be used following development of the Project site, they must be properly destroyed under permits from Valley Water.[43] According to a Phase I Environmental Site Assessment (ESA) prepared for the Project site in 2022, groundwater monitoring wells were installed at the Project site during investigations conducted between 1989 and 1994, and the monitoring wells were reportedly destroyed under permits from Valley Water in 1995. The Phase I ESA did not identify any current water supply wells or groundwater monitoring wells at the Project site;[44] therefore, it is not clear if there are active wells present on the Project site. Operation of the Project would not involve the use of wells on the Project site; therefore, any wells on the Project site, if currently present, should be properly destroyed. City General Plan Policy 5.10.4-P11 also requires unused wells to be abandoned properly. If there are wells on the Project site and the wells are not properly destroyed prior to or during redevelopment, the wells could act as vertical conduits and allow for the future migration of saltwater and other potential contaminants from shallow groundwater into deeper groundwater zones, which would be a ***significant*** impact on groundwater quality.

As discussed in Section 3.11 *Hazards and Hazardous Materials,* subsurface contamination has been identified at the Project site. Given the past manufacturing activities at the Project site, which involved the storage and use of hazardous materials, it is possible that there are onsite sources of subsurface contamination that have not been identified. The installation of landscaping (in particular, stormwater treatment/infiltration features) over areas of contaminated soil or groundwater could increase the leaching of contaminants from soil into groundwater or the migration of contaminated groundwater, which would be a ***significant*** impact on groundwater quality.

MITIGATION MEASURES. Implementation of Mitigation Measure WQ-1.2 would ensure that the significant impact related to wells would be reduced to a less-than-significant level by ensuring that the potential wells on the Project site would be investigated and properly destroyed. Implementation of Mitigation Measure HAZ-2.1 would ensure that the significant impact related to contaminated groundwater would

[41] San Francisco Bay Regional Water Quality Control Board. 2022. *San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, NPDES Permit No. CAS612008.* May 11.

[42] Kylli. 2022. *Mission Point by Kylli, Rezoning Application*. November 23.

[43] Valley Water. May 23, 2022—letter to Ms. Rebecca Bustos, City of Santa Clara, Subject: Planning Division Notice of Preparation of an Environmental Impact Report – 3005 Democracy Way: Mission Point (Files: PLN2017-12924, PLN2018-13400, PLN21-15386, and PLN21-15387).

[44] Cornerstone Earth Group. 2022. *Phase I Environmental Site Assessment, 49-acre Old Ironsides Drive, Tasman Drive, Democracy Way, and Patrick Henry Drive Parcels, Santa Clara, California.* July 25.

be reduced to a less-than-significant level by ensuring that subsurface contamination at the Project site would be further investigated and remediated, as necessary, under the oversight of a regulatory agency. Implementation of Mitigation Measure HAZ-2.1 would require preparation and implementation of a Soil and Groundwater Management Plan to address known and potential unidentified subsurface contamination that may be encountered during construction. Thus, compliance with the MRP and implementation of Mitigation Measures WQ-1.2 and HAZ-2.1 would ensure the protection of groundwater and surface water quality during operation and maintenance of the Project, and impacts would be ***less than significant with mitigation.***

WQ-1.2: *Wells.* The Project Sponsor shall evaluate the potential presence of wells on the Project site, based on Valley Water records. If suspected wells have already been properly destroyed, the Project Sponsor shall provide evidence to Valley Water to demonstrate this. If it cannot be readily determined to the satisfaction of Valley Water whether any wells are present on the Project site or whether the suspected wells have been properly destroyed, the Project Sponsor shall further investigate the locations of suspected wells. This investigation shall be performed under the direction of Valley Water and may include the use of geophysical surveying methods, potholing, excavation, or other exploratory activities, as deemed necessary by Valley Water, to evaluate the locations and conditions of the suspected wells. If any wells are identified at the Project site that have not been properly destroyed, the Project Sponsor shall properly destroy the wells under permits from Valley Water. The Project Sponsor shall provide the City with evidence that suspected wells on the Project site have been investigated and properly destroyed, if necessary, to the satisfaction of Valley Water prior to the City issuing demolition or grading permits for the Project. If any well is discovered during construction that has not been properly destroyed, the well shall be protected until it can be properly destroyed under permits from Valley Water at the soonest possible time.

Impact WQ-2: Groundwater Supplies. With implementation of mitigation, the Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project would impede sustainable groundwater management of the basin. (Less than Significant with Mitigation)

Construction

Construction of the Project would require excavation for utilities and below-grade parking. Such excavation would extend to a maximum depth of approximately 16 feet, which is below the shallow groundwater table; therefore, construction dewatering for excavation would be required. The geotechnical engineer for the Project prepared a dewatering memorandum[45] that described the estimated excavation dewatering flow rates associated with the Project, based on a review of subsurface information for the Project site. The dewatering memorandum indicates that the estimated excavation dewatering flow rates for the Project would be between 0.7 and 4.2 gallons per minute for each of the four areas on the Project site if the Project is constructed in four phases.[46] Although construction in the four areas would start at different times, for purposes of this analysis, it was assumed that two areas of construction (Areas B and D) could have some overlap in their dewatering periods. Additional dewatering for depressurization purposes could be needed in the deeper sand lenses, which could require additional dewatering, with flow rates estimated to be between 7.3 and 8.5 gallons per minute for each area of

[45] Langan. 2022. *Groundwater Dewatering Flow Rates, 3005 Democracy Way, Santa Clara, California*. October 5.
[46] Ibid.

construction. The duration of dewatering was estimated to be from 398 to 493 days for each area of construction.[47]

As discussed in Section 3.9, *Geology and Soils,* the amount of excavation dewatering required for the Project could vary significantly, depending on the excavation shoring systems utilized. The upper range of total dewatering volumes for the Project were estimated by assuming the highest dewatering flow rates, including dewatering for depressurization, multiplied by the durations of dewatering. Based on this approach, the total volume of dewatering for the Project could be up to approximately 31 million gallons (95 acre-feet) for construction of the four areas, with the majority of dewatering occurring over approximately 6 years, (for an average of approximately 16 acre-feet per year [afy]).

According to the GMP for the Santa Clara Subbasin, previous analysis has estimated that annual groundwater pumping in the Santa Clara Plain should not exceed 200,000 acre-feet in any one year; current production is well below this limit. Average annual groundwater pumping in the Santa Clara Plain from 2010 to 2019 was 75,000 afy. Although the water budget can vary significantly from year to year, from 2010 to 2019, there was an average annual increase in groundwater storage in the Santa Clara Plain of approximately 3,000 afy, which was largely due to Valley Water's managed recharge program.[48] The estimated average total annual groundwater dewatering volume that would be generated by construction of the Project (16 afy) is only 0.02 percent of the average annual groundwater pumping volume for the Santa Clara Plain. In addition, because the groundwater would be extracted from shallow soil and shallow water-bearing zones that are generally not used for water supply and separated from the principal aquifers by a low-permeability aquitard, the dewatering of excavation during construction of the Project would not be expected to substantially decrease groundwater supplies. However, the extraction of 16 afy of groundwater for several years by the Project could be considered a substantial use of groundwater resources, particularly during periods of drought and when considering that construction and operation of other developments in the Santa Clara Plain could also increase groundwater pumping in the plain. In addition, because operation of the Project could also increase use of groundwater for water supply (as discussed further under *Operation and Maintenance,* below), construction dewatering could contribute to a ***significant*** impact related to decreasing groundwater supplies. Implementation of Mitigation Measure WQ-1.1 would require a Dewatering Plan to be prepared and submitted to Valley Water and the City for review and approval. It would also require the Project to use shoring systems, such as soil/cement cutoff walls, if deemed necessary by Valley Water to ensure sustainable management of the Santa Clara Subbasin, that would limit dewatering volumes and durations to the maximum extent possible. Therefore, Implementation of Mitigation Measure WQ-1.1 would ensure that potential impacts of Project construction on groundwater supplies would be ***less than significant with mitigation***.

As discussed in Section 3.9 *Geology and Soils,* extensive excavation dewatering could lower the groundwater table in areas adjacent to excavation, which could result in subsidence. As discussed under *Environmental Setting*, historical groundwater pumping in the Santa Clara Valley resulted in permanent subsidence in the Project area. Valley Water monitors subsidence in the Santa Clara Subbasin as part of its implementation of the GMP. Shallow groundwater levels surrounding areas of dewatering would be expected to rebound after the completion of dewatering; therefore, potential subsidence due to construction dewatering could be temporary (i.e., elastic) and not a contributor to permanent subsidence, which is typically associated with the long-term extraction of deeper groundwater. However, depending on the amount of construction dewatering performed and the characteristics of the soil formations and

[47] Ibid.

[48] Santa Clara Valley Water District. 2021. *Groundwater Management Plan for the Santa Clara and Llagas Subbasins.* November.

overlying improvements within the area that would be affected by dewatering, there is potential for permanent subsidence to occur, which would be a ***significant*** impact related to dewatering and subsidence. Implementation of Mitigation Measures GEO-3.1 and WQ-1.1 would ensure that potential subsidence due to construction dewatering would be evaluated in the design-level geotechnical report and the Dewatering Plan that would be prepared for the Project, which would be required to modify the proposed shoring systems and dewatering systems, as deemed necessary by Valley Water, to ensure sustainable management of the Santa Clara Subbasin. This includes controlling subsidence due to groundwater pumping. Implementation of Mitigation Measures GEO-3.1 and WQ-1.1 would therefore ensure that construction of the Project would result in impacts related to impeding sustainable groundwater management of the basin that would be ***less than significant with mitigation***.

Operation

The below-grade structures on the Project site would be waterproofed; therefore, operational dewatering would not be required following the completion of construction. As discussed under *Environmental Setting*, the Project site is currently covered by 24.5 acres of impervious surfaces (pavement and roofs), 20.8 acres of pervious crushed aggregate, and 3.4 acres of pervious landscaping. The Project would include 32.3 acres of impervious surfaces (pavement and roofs) and 16.3 acres of pervious landscaping. Although the Project would increase the amount of impervious surface by 7.8 acres compared to the existing condition, it would also increase the amount of pervious landscaping by 7.8 acres compared to the existing condition, which would result in a decrease in stormwater runoff from the Project site compared to the existing condition because landscaping has a much lower runoff rate (and therefore a higher infiltration rate) than the compacted crushed aggregate that currently covers a large portion of the Project site. The total stormwater runoff discharge rate for the Project site was estimated to be 7.79 cubic feet per second under existing conditions and 6.14 cubic feet per second under the proposed conditions with the Project, based on a rainfall intensity of 0.2 inch per hour used for the design of stormwater treatment systems.[49] The reduction in stormwater runoff under the Project would correlate with an increase in infiltration of stormwater compared to existing conditions; therefore, the Project would have a beneficial effect related to groundwater recharge.

The City provides potable water to its businesses and residents. Increasing demand for water has been met primarily by adding new wells to the City's groundwater resources but also through deliveries from two suppliers of imported water, the San Francisco Public Utilities Commission (SFPUC) and Valley Water. SFPUC's water supply is surface water; Valley Water's primary water supply is imported water, with the remaining water supplied from local groundwater and surface water. The City also provides recycled water for non-potable use in landscape irrigation and industrial processes to further decrease the potable water demand.[50] The Project would utilize potable water and recycled water supplied by the City. As discussed in Section 3.15, *Utilities and Service Systems*, the Project area currently receives potable water exclusively from SFPUC. The City prepared a WSA to evaluate the projected use of potable water by the Project. As discussed in Section 3.15, *Utilities and Service Systems*, the WSA found that the Project would increase water demand on the Project site from 2.3 to 646.4 afy. The City determined that the projected potable water supply through 2045 would be adequate to meet the demand of reasonably foreseeable future development, including the Project, assuming that the City would be able to increase the amount of groundwater pumped to meet reasonably anticipated deficiencies from other sources and assuming there would be no reductions in supplies from groundwater.

[49] BKF Engineers. 2022. *Existing Stormwater Plan and Proposed Stormwater Plan, Mission Point*. December 16.
[50] City of Santa Clara. 2021. *2020 Urban Water Management Plan*. Adopted June 22.

Although the Project site currently receives potable water from SFPUC exclusively, the WSA indicates that the City's contract with SFPUC is interruptible and potable water from SFPUC may be unavailable after 2028. If SFPUC supplies are interrupted, the City may need to increase its use of Valley Water supplies.[51] Because of future water demand in Santa Clara and reasonably anticipated deficiencies from other sources, as discussed above, the City may need to rely more heavily on groundwater for the future water supply.

The WSA indicates that the Project must make every effort to offset the use of potable water. Alternative water supplies, such as recycled water, must be utilized for the Project to the maximum extent possible. The WSA indicates that rainwater/stormwater capture and reuse, greywater reuse, reclaimed wastewater onsite, or other water supplies might need to be developed to offset the potable water demand of the Project. The WSA also indicates that the recycled water supply for the Project would require approval by South Bay Water Recycling (SBWR).[52] The Project has proposed water-saving measures, including low-flow and low-flush plumbing fixtures and accessible water data to inform occupants of water use. Project landscaping would include native and drought-resistant plants; tree canopies for parks, plazas, and trails whenever possible; and flow-through planters. Recycled water is proposed to be used for irrigation on the Project site and is being considered for non-potable uses within commercial buildings.

As discussed in the introduction to this section, Valley Water has requested a review of the WSA prepared by the City to comment on its consistency with countywide water supply planning efforts. Valley Water has requested that the City and Project Sponsor implement specific measures from the MWENDO to reduce or avoid impacts on the water supply. If the Project does not implement specific measures from the MWENDO to reduce or avoid impacts on the water supply, the Project could contribute to unsustainable management of the Santa Clara Subbasin by increasing groundwater pumping and contributing to unsustainable levels of groundwater extraction from the Santa Clara Subbasin, which would be a ***significant*** impact.

MITIGATION MEASURE. Implementation of Mitigation Measure WQ-2.1 would ensure that potential operational impacts of the Project related to substantially decreasing groundwater supplies or impeding sustainable groundwater management of the basin would be ***less than significant with mitigation***, ensuring that water efficiency measures would be incorporated into the Project design, as requested by Valley Water**.**

WQ-2.1: *Water Supply.* The Project shall incorporate specific measures from the MWENDO into the Project design, as requested by Valley Water, to ensure that projected use of water by the Project is consistent with Valley Water's countywide water-supply planning efforts and the WSA. The Project Sponsor shall provide the City and Valley Water with evidence of approval from SBWR for the Project's use of recycled water to reduce the demand generated by the Project to the extent feasible, based on Project design and operation. The water-saving features of the Project design and WSA prepared for the Project shall be provided to Valley Water for review. Additional water-saving measures shall be incorporated into the Project design if requested by Valley Water or the City, ensuring that the Project would be consistent with the WSA and Valley Water's countywide water-supply planning efforts. The water-saving features of the Project design shall be approved by Valley Water and the City prior to the City issuing building permits for the Project. The

[51] City of Santa Clara. 2023. *Resolution No. 23-9213, A Resolution of the City of Santa Clara, California, Approving a Water Supply Assessment for Mission Point – 3005 Democracy Way.* Adopted April 4.

[52] Ibid.

following specific measures from the MWENDO shall be incorporated into the Project design, as applicable:

- Install hot-water recirculation systems;
- Install graywater dual-distribution plumbing;
- Incorporate alternative water sources (e.g., cisterns) and recycled water connections as feasible;
- Install pool and spa covers;
- Encourage reuse of recycled water, graywater, and rainwater/stormwater in new development and remodels through the installation of dual plumbing for irrigation, toilet flushing, cooling towers, and other non-potable uses;
- Require dedicated landscape meters where applicable;
- Require installation of separate submeters to each unit in multi-family developments and individual spaces within commercial buildings to encourage efficient water use; and
- Install weather- or soil-based irrigation controllers.

Impact WQ-3: Drainage Patterns. With implementation of mitigation, the Project would not substantially alter the existing drainage pattern of the Project site or area in a manner that would result in substantial erosion or siltation onsite or offsite, substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite, create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or impede or redirect floodflows. (Less than Significance with Mitigation)

Construction

Construction activities would involve excavation and grading, which could temporarily alter drainage patterns and expose soil to potential erosion. As described under Impact WQ-1 above, required compliance with the Construction General Permit would ensure that construction of the Project would result in ***less-than-significant*** impacts related to erosion/siltation or the creation of other sources of polluted runoff.

Construction of the Project would alter drainage patterns by excavating areas for subsurface parking structures and utilities, placing fill material to raise some areas of the Project site above existing grades, creating new structures and areas of landscaping and pavement, removing and replacing existing stormwater drainage systems, and adding new stormwater drainage systems. As discussed under *Environmental Setting*, the area of Democracy Way within the Project site and two areas within Old Ironsides Drive adjacent east of the Project site are mapped by FEMA as being in Zone AO, a special flood hazard area subject to inundation by the 1-percent-annual-chance flood (usually sheet flow on sloping terrain), with a flooding depth of 1 foot.[53] Therefore, construction of the Project could alter flooding conditions.

The Project would remove the existing storm drain under Democracy Way and replace the existing storm drain main under Tasman Drive with a new 48-inch-diameter line, starting at the intersection of Patrick

[53] Federal Emergency Management Agency. 2009. *FIRM, Flood Insurance Rate Map, Santa Clara County, California, and Incorporated Areas, Map Number 06085C0063H*. Effective Date May 18, 2009.

Henry Drive to Old Ironsides Drive. The existing storm drain under Patrick Henry Drive would be extended toward the north, with a new 48-inch-diameter line from the intersection at Democracy Way to the new 48-inch-diameter line beneath Tasman Drive. In addition, a new 12-inch-diameter storm drain line would extend south from Tasman Drive through the open space area to the Central Green area for drainage within the northern portion of the Project site. For the southern portion of the Project site, a new 12-inch-diameter storm drain line would extend west from the existing 24-inch-diameter storm drain main under Old Ironsides Drive and extend to the area north of South Park. A new 12-inch-diameter storm drain line would extend east from the existing 24-inch diameter storm drain main under Patrick Henry Drive.

The precise timing for the stormwater drainage system construction discussed above has not been defined. If modifications to the existing stormwater drainage systems are not appropriately designed or constructed at the appropriate times with regards to the different phases of Project construction, as well as weather conditions (e.g., rain), then runoff from the Project site could exceed the capacity of existing or proposed stormwater drainage systems, flooding could occur onsite or offsite, and floodflows could be impeded or redirected by the Project, which would be a ***significant*** impact related to altering stormwater drainage patterns.

MITIGATION MEASURES. Implementation of Mitigation Measures WQ-3.1 and WQ-3.2 would ensure that potential construction impacts of the Project related to exceeding the capacity of existing or proposed stormwater drainage systems, flooding onsite or offsite, and impeding or redirecting floodflows would be ***less than significant with mitigation*** by requiring a hydraulic study to be prepared to evaluate the potential impacts; modifications to the Project design, if necessary; and implementation of a Construction-Period Stormwater Drainage Control Plan.

WQ-3.1: *Drainage and Flooding during Construction and Operation.* The Project Sponsor shall prepare a hydraulic study to evaluate whether the existing and proposed stormwater drainage systems that would receive runoff from the Project site would be capable of conveying 10-year peak runoff from the Project site and whether flows from the Project site during a 100-year flood event would remain within public roadway limits and not extend into private property, per City requirements. For Project construction, the hydraulic study shall also evaluate stormwater runoff patterns during all phases, including surface runoff flow directions and estimated discharge rates. For Project operation, the hydraulic study shall evaluate the proposed changes to drainage patterns at the Project site and the placement of fill material and structures within the special flood hazard area currently mapped within Democracy Way and determine whether such changes would result in an increase in the base flood elevation of more than 1 foot in any areas within the city when combined with changes in flooding conditions from all other existing and anticipated development. If the hydraulic study finds that the Project would not meet the required stormwater conveyance and flooding conditions above, the Project design shall be modified to the satisfaction of the City to meet the conditions. Such design modifications could include additional stormwater retention systems, such as swales or underground cisterns/storage pipes with metered outlets, and/or changing the size and location of proposed storm drain systems on the Project site. The hydraulic study shall be submitted to the City for review and approval prior to the City issuing a grading or building permit.

WQ-3.2: *Construction Stormwater Drainage.* The Project Sponsor shall prepare and implement a Construction-Period Stormwater Drainage Control Plan, which shall be submitted to the City for review and approval prior to the City issuing grading or building permits. The Construction-

Period Stormwater Drainage Control Plan shall account for the phasing of construction activities and include the following:

- A detailed construction schedule for the entire Project that includes the timing for construction of new stormwater drainage systems and removal of existing stormwater drainage systems.
- Figures depicting the proposed grading of the Project site, including areas of excavation and the placement of fill during various phases of construction, and the drainage control systems that would be utilized during the various phases of construction (e.g., temporary berms and swales, sumps/pumps for subsurface structures, existing and planned stormwater drainage systems);
- A summary of detailed hydraulic evaluations of stormwater runoff patterns (see Mitigation Measure WQ-3.1), including surface runoff flow directions and estimated discharge rates for all construction phases.
- The proposed construction-period drainage control systems shall be designed such that the estimated rates and volumes of stormwater discharged to existing or proposed offsite stormwater drainage systems shall not increase beyond the existing condition. If rates and volumes of stormwater discharge to existing or proposed offsite stormwater drainage systems increase beyond the existing condition, the Construction-Period Stormwater Drainage Control Plan shall demonstrate that the existing or proposed offsite stormwater drainage systems have the capacity necessary to convey the increased discharges.
- Timing restrictions and methods for rerouting flows from existing storm drain systems during modification to ensure that construction activities do not impede flows within the systems.
- Special precautions to be taken for construction activities within special flood hazard zones, including not allowing the storage of hazardous materials or placement of features that could impede or redirect floodflows within special flood hazard zones.

Operation

During operation, the Project site would be covered by structures, pavement, and landscaping, with no ongoing soil exposure or disturbance that could result in erosion or siltation. As described under Impact WQ-1, required compliance with the MRP would have a beneficial effect on the quality of stormwater runoff from the Project site compared to the existing condition. Therefore, operation of the Project would result in ***less-than-significant*** impacts related to erosion/siltation or creating other sources of polluted runoff.

As described above under *Environmental Setting*, the Project site is within the dam failure inundation areas of multiple dams operated by Valley Water. Although the Project could impede or redirect flooding from dam failure inundation, the likelihood of dam failure is low because these dams are regularly inspected by DSOD. Furthermore, reservoir restrictions are already in place for Anderson Dam, which was the only dam to be rated "poor" by DSOD. Therefore, the Project would result in ***less-than-significant*** impacts related to impeding or redirecting floodflows from dam failure inundation.

As discussed above, the Project would alter drainage patterns by placing fill material to raise some areas of the Project site above existing grades, creating new structures and areas with landscaping and

pavement, removing and replacing existing stormwater drainage systems, and adding new stormwater drainage systems. Furthermore, the Project could alter flooding conditions by placing fill material and structures within a special flood hazard zone. As described under Impact WQ-2, the Project would increase the amount of pervious landscaping compared to the existing condition, which would result in an overall decrease in stormwater runoff from the Project site compared to the existing condition; however, because the Project would significantly alter drainage patterns, as discussed above, differing amounts of runoff from the Project site could be conveyed to different storm drain systems compared to the existing condition. If the proposed stormwater drainage systems are not appropriately designed and constructed, runoff from the Project site could exceed the capacity of existing or proposed stormwater drainage systems. Flooding could occur onsite or offsite, and floodflows could be impeded or redirected by the Project, which would be a ***significant*** impact related to altering stormwater drainage patterns.

Implementation of Mitigation Measure WQ-3.1 would ensure that potential operational impacts of the Project related to exceeding the capacity of existing or proposed stormwater drainage systems, flooding onsite or offsite, and impeding or redirecting floodflows would be ***less than significant with mitigation*** by requiring a hydraulic study to be performed and the Project design to be modified, if necessary, to demonstrate that the Project would not result in significant impacts related to stormwater conveyance and flooding.

Impact WQ-4: Release of Pollutants Due to Inundation. In flood hazard, tsunami, or seiche zones, the Project would not risk the release of pollutants due to inundation with implementation of mitigation. (Less than Significant with Mitigation)

A tsunami is a sea wave caused by a submarine earthquake, landslide, or volcanic eruption. Tsunamis can cause catastrophic damage to shallow or exposed shorelines. The Project site is not within a Tsunami Hazard Area.[54] Therefore, ***no impacts*** related to the release of pollutants in the event of a tsunami would occur.

Seiches are waves that are created in an enclosed body of water such as a bay, lake, or harbor. The waves go up and down or oscillate and do not progress forward like standard ocean waves. Seiches, also referred to as *standing waves*, are triggered by strong winds, changes in atmospheric pressure, earthquakes, tsunamis, or tidal influence. The height and frequency of seiches are determined by the strength of the triggering factor(s) and the size of the basin. Triggering forces that set off a seiche are most effective if they operate at specific frequencies relative to the size of an enclosed basin. Seiches are not considered a hazard in San Francisco Bay, given basin geometry and the dimensions of San Francisco Bay.[55] As described under Impact WQ-3, the Project site is within the dam failure inundation areas of multiple dams operated by Valley Water. If a seiche were to occur in the reservoirs of any of these dams, it could cause overtopping of the dams and result in inundation of downstream areas. Because these dams are many miles upstream from the Project site, potential inundation caused by a seiche overtopping any of these facilities would be expected to remain within the creeks near the Project site. Therefore, ***no impacts*** related to the release of pollutants in a seiche event would occur.

As described under Impact WQ-3, the area of Democracy Way within the Project site and two areas within Old Ironsides Drive adjacent east of the Project site are mapped by FEMA as being in special flood hazard areas subject to inundation by the 1-percent-annual-chance flood, with a flooding depth of 1 foot.

[54] California Geologic Survey. 2021. *Tsunami Hazard Area Map, County of Santa Clara*. July 8.

[55] Borrero et. al. 2006. *Numerical Modeling of Tsunami Effects at Marine Oil Terminals in San Francisco Bay*. Report prepared for Marine Facilities Division of the California State Lands Commission. June 8.

Construction

If hazardous materials are stored during construction within special flood hazard areas and flooding occurs, the Project could result in a release of pollutants due to inundation, which would be a significant impact. However, implementation of Mitigation Measure WQ-3.2 would ensure that this potential impact would be less than significant with mitigation by requiring hazardous materials not to be stored in special flood hazard areas during construction of the Project.

Operation

The Project would include the placement of fill material and structures within the special flood hazard area mapped within Democracy Way. The finished floor elevations of the proposed structures would be above the base flood elevation, and the subsurface portions of structures would be flood proofed, in accordance with the requirements of Chapter 15.45 of the City Code. The minimum building floor elevation for the Project would be 15 feet NAVD88, as recommended by the Project-specific SLR study, to accommodate potential flooding from Calabazas Creek and accommodate up to 4 feet of SLR (projected for 50 to 60 years in the future) from coastal flooding.[56] Because the Project would be designed to accommodate future flooding and SLR, the Project would not be at risk from pollutants being released due to inundation during operation. This impact would be ***less than significant with mitigation.***

Impact WQ-5: Conflict with a Water Quality Control Plan or Sustainable Groundwater Management Plan. With implementation of mitigation, the Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. (Less than Significant with Mitigation)

As described above under *Environmental Setting*, the Basin Plan is the water quality control plan for the Project area. It establishes beneficial water uses for waterways, water bodies, and groundwater within the region and is a master policy document for managing water quality in the region. The GMP for the Santa Clara and Llagas Subbasins has established the following sustainability goals related to groundwater supply, reliability, and protection:

- Manage groundwater to ensure sustainable supplies and avoid land subsidence, and
- Aggressively protect groundwater from the threat of contamination.

These goals describe the overall objectives of Valley Water's groundwater management programs. The basin management strategies below are used to meet the sustainability goals.

- Manage groundwater in conjunction with surface water.
- Implement programs to protect and promote groundwater quality.
- Maintain and develop adequate groundwater models and monitoring networks.
- Work with regulatory and land use agencies to protect recharge areas, promote natural recharge, and prevent groundwater contamination. [57]

[56] Moffatt & Nichol. February 28, 2019—memorandum to Andrea Jones, Kylli, Inc., 3005 Democracy Way, Santa Clara, CA.

[57] Santa Clara Valley Water District. 2021. *2021 Groundwater Management Plan for the Santa Clara and Llagas Subbasins*. November.

Construction

As described under Impact WQ-1, construction of the Project would be required to comply with NPDES permit requirements, including the Construction General Permit. Implementation of Mitigation Measures WQ-1.1 and HAZ-2.1 would further ensure the protection of groundwater and surface water quality during construction of the Project. As described under Impact WQ-2, implementation of Mitigation Measures WQ-1.1and GEO-3.1 would ensure that construction of the Project would not substantially decrease groundwater supplies or impede sustainable groundwater management of the basin. Therefore, potential construction impacts related to conflicting with or obstructing implementation of the Basin Plan or GMP for the Santa Clara and Llagas Subbasins would be ***less than significant with mitigation***.

Operation

As described under Impact WQ-1, operation of the Project would be required to comply with the MRP, which would ensure the protection of surface water quality. Implementation of Mitigation Measures WQ-1.2 and HAZ-2.1 would ensure the protection of groundwater water quality during operation of the Project. As described under Impact WQ-2, implementation of Mitigation Measure WQ-2.1 would ensure that operation of the Project would not substantially decrease groundwater supplies or impede sustainable groundwater management of the basin. Therefore, potential operational impacts related to conflicting with or obstructing implementation of the Basin Plan or GMP for the Santa Clara and Llagas Subbasins would be ***less than significant with mitigation***.

Cumulative Impacts

This section evaluates cumulative impacts on hydrology and water quality. This cumulative analysis examines the effects of the Project in the relevant geographic area in combination with other current projects and probable future projects. The geographic areas of concern for cumulative hydrology and water quality impacts are 1) the storm drains, creeks, and surface waters that receive runoff from the Project site; 2) areas with flooding hazards that receive runoff from the Project site; and 3) the Santa Clara Subbasin (for groundwater).

Impact C-WQ-1: Cumulative Water Quality Impacts. With implementation of mitigation, the Project, in combination with other foreseeable development in the vicinity, would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. (Less than Significant with Mitigation)

As described above under *Environmental Setting*, stormwater discharged from past and existing land uses in the Project area and surrounding areas have contained pollutants and cumulatively contributed to impairment of the water quality in San Tomas Aquino Creek, Guadalupe Slough, and South San Francisco Bay. Furthermore, historical groundwater pumping in the Santa Clara Valley has resulted in cumulative impacts on groundwater quality through saltwater intrusion. Therefore, cumulative conditions exist for impacts on water quality in the Project area. Stormwater regulations have become progressively more stringent since passage of the federal Clean Water Act, and current regulations now require municipalities and new developments to manage and treat all significant sources of stormwater pollutants. Management of groundwater use in the Santa Clara Subbasin is performed by Valley Water through implementation of the GMP for the Santa Clara and Llagas Subbasins to limit cumulative impacts on groundwater quality from saltwater intrusion. Stormwater runoff and groundwater dewatering from the Project site and cumulative projects could result in the degradation of surface water and groundwater if not appropriately managed.

Construction

Stormwater runoff and groundwater from dewatering during construction of the Project would be managed, treated, and monitored in accordance with NPDES permit requirements, including the Construction General Permit. Cumulative projects would also be required to comply with these existing regulations to protect water quality. As described under Impact WQ-1, the Project would be required to implement Mitigation Measures WQ-1.1 and HAZ-2.1 which would further ensure the protection of groundwater and surface water during construction. As a result, construction of the Project would not have a cumulatively considerable impact on surface water or groundwater quality; therefore, the Project's contribution to cumulative impacts would not be considerable. The impact would be ***less than significant with mitigation***.

Operation

Stormwater runoff during operation of the Project would be managed and treated in accordance with the MRP. Cumulative projects would also be required to comply with the MRP to protect water quality. As described under Impact WQ-1, the Project would be required to implement Mitigation Measures WQ-1.2 and HAZ-2.1 to ensure the protection of groundwater during operation. As a result, operation of the Project would not have a cumulatively considerable impact on surface water or groundwater quality; therefore, the Project's contribution to cumulative impacts would not be considerable. The impact would be ***less than significant with mitigation***.

Impact C-WQ-2: Cumulative Groundwater Supply Impacts. With implementation of mitigation, the Project, in combination with other foreseeable development in the vicinity, would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project would impede sustainable groundwater management of the basin. (Less than Significant with Mitigation)

As described under Impact WQ-2, the Project would increase the infiltration of stormwater at the Project site compared to existing conditions. The Project would have a beneficial effect related to groundwater recharge. Therefore, this topic is not discussed further.

As described above under *Environmental Setting*, historical groundwater pumping in the Santa Clara Valley has resulted in cumulative impacts, including a decline in groundwater levels and subsidence. Management of groundwater use in the Santa Clara Subbasin is currently performed by Valley Water through implementation of the GMP for the Santa Clara and Llagas Subbasins to limit cumulative impacts related to groundwater supply and subsidence. The Santa Clara Subbasin is currently being managed in accordance with the GMP. Therefore, cumulative conditions related to groundwater supply and subsidence are stable and sustainable.

Construction

Construction dewatering within excavations would be required for the Project and could also be required for cumulative projects. The extraction of groundwater during construction of the Project and cumulative projects could result in decreased groundwater supplies as well as subsidence. As described under Impact WQ-2, the Project would be required to implement Mitigation Measures GEO-3.1 and WQ-1.1, which would ensure that construction of the Project would not substantially decrease groundwater supplies or result in subsidence that could impede sustainable management of the groundwater basin. Similar requirements would be applied to the cumulative projects, as applicable. As a result, construction of the Project would not have a cumulatively considerable impact on groundwater supplies or sustainable

management of the groundwater basin; the Project's contribution to cumulative impacts would not be considerable. The impact would be ***less than significant with mitigation***.

Operation

The municipal water supply for the Project and cumulative projects would depend on the use of groundwater. The extraction of groundwater for use by the Project and cumulative projects could result in decreased groundwater supplies and subsidence. As described under Impact WQ-2, the Project would be required to implement Mitigation Measure WQ-2.1, which would ensure that operation of the Project would not substantially decrease groundwater supplies or result in subsidence that could impede sustainable management of the groundwater basin. Similar requirements would be applied to the cumulative projects, as applicable. As a result, operation of the Project would not have a cumulatively considerable impact on groundwater supplies or sustainable management of the groundwater basin; the Project's contribution to cumulative impacts would not be considerable. The impact would be ***less than significant with mitigation***.

Impact C-WQ-3: Cumulative Drainage Pattern Impacts. With implementation of mitigation, the Project, in combination with other foreseeable development in the vicinity, would not substantially alter the existing drainage pattern of the Project site or area in a manner that would result in substantial erosion or siltation onsite or offsite, substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite, create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or impede or redirect floodflows. (Less than Significance with Mitigation)

Erosion and siltation can result in cumulative impacts by reducing the conveyance capacity of stormwater drainage systems and creeks (though sedimentation) and reducing water quality. San Tomas Aquino Creek, Guadalupe Slough, and South San Francisco Bay are not currently impaired by sediment;[58] however, these receiving waters are impaired by other pollutants, as discussed under *Environmental Setting.* This is a cumulative condition, as discussed under Impact C-WQ-1. Furthermore, the erosion of contaminated soils can increase pollutant loads in runoff and receiving waters. Cumulative projects would involve excavation and grading that could temporarily alter drainage patterns and expose soil to potential erosion and siltation. Portions of the Project site and surrounding areas are susceptible to flooding hazards due to inadequate drainage systems, as discussed under *Environmental Setting*. Increased runoff from developments and altered drainage patterns have resulted in a cumulative condition related to flooding hazards in the Project area.

Construction

Construction of the Project would involve excavation and grading that could temporarily alter drainage patterns and expose soil to potential erosion. The Project would be required to comply with the Construction General Permit, which would ensure that construction of the Project would avoid the creation of erosion/siltation or other sources of polluted runoff. Cumulative projects that disturb more than 1 acre of land would also be required to comply with the Construction General Permit. Such projects that disturb less than 1 acre of land would be subject to the construction site control and inspection

[58] State Water Resources Control Board. 2018. *Final 2018 California Integrated Report (Clean Water Act Section 303[d] List/305[b] Report).* Available: https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2018_integrated_report.html, Accessed December 9, 2022.

requirements administered by the City, as required by Provision C.6 of the MRP. Therefore, compliance with the Construction General Permit would ensure that construction of the Project would not create cumulatively considerable impacts related to erosion and siltation or other sources of polluted runoff; the Project's contribution to cumulative impacts would not be considerable. The impact would be ***less than significant.***

As described under Impact WQ-3, construction of the Project would alter drainage patterns and existing stormwater drainage systems. Although the Project would result in an overall decrease in stormwater runoff from the Project site compared to the existing condition, different amounts of runoff from the Project site could be conveyed to different storm drain systems compared to the existing condition. The Project could also alter flooding conditions by placing fill material and structures within a special flood hazard zone. Cumulative projects may involve similar changes to drainage patterns. If modifications to the existing stormwater drainage systems that would serve the Project are not appropriately designed or constructed at the appropriate times with regard to the different phases and activities of Project construction, as well as the different weather conditions (e.g., rain), then runoff from the Project site during construction could exceed the capacity of existing or proposed stormwater drainage systems, flooding could occur onsite or offsite, and floodflows could be impeded or redirected by the Project. Cumulative projects could also result in similar impacts related to stormwater drainage systems and flooding, which would be a potentially cumulatively considerable impact and therefore significant with respect to altering stormwater drainage patterns.

As described under Impact WQ-3, the Project would be required to implement Mitigation Measures WQ-3.1 and WQ-3.2, which would ensure that construction of the Project would not exceed the capacity of existing or proposed stormwater drainage systems, result in flooding onsite or offsite, or impede or redirect floodflows. As a result, construction of the Project would not create a cumulatively considerable impact related to exceeding the capacity of existing or proposed stormwater drainage systems, flooding onsite or offsite, or impeding or redirecting floodflows; therefore, these cumulative impacts would be ***less than significant with mitigation.***

Operation

During operation of the Project and cumulative projects, ground surfaces would be covered by structures, pavement, and landscaping, with no ongoing soil exposure or disturbance that could result in erosion and siltation. Required compliance with the MRP would also have a beneficial effect on the quality of stormwater runoff from the Project site and cumulative projects compared to existing conditions. Therefore, compliance with the MRP would ensure that operation of the Project would not create cumulatively considerable impacts related to erosion and siltation or other sources of polluted runoff; the Project's contribution to cumulative impacts would not be considerable. The impact would be ***less than significant.***

As described under Impact WQ-3, the Project would alter drainage patterns and existing stormwater drainage systems, and although the Project would result in an overall decrease in stormwater runoff from the Project site compared to the existing condition, different amounts of runoff from the Project site could be conveyed to different storm drain systems compared to the existing condition. The Project could also alter flooding conditions by placing fill material and structures within a special flood hazard zone. Cumulative projects may involve similar changes to drainage patterns. If modifications to the existing stormwater drainage systems that would serve the Project are not appropriately designed, then runoff from the Project site could exceed the capacity of existing or proposed stormwater drainage systems, flooding could occur onsite or offsite, and floodflows could be impeded or redirected by the Project.

Cumulative projects could also result in similar impacts related to stormwater drainage systems and flooding, which would be a potentially cumulatively considerable impact and therefore significant with respect to altering stormwater drainage patterns.

As described under Impact WQ-3, the Project would be required to implement Mitigation Measures WQ-3.1, which would ensure that operation of the Project would not exceed the capacity of existing or proposed stormwater drainage systems, result in flooding onsite or offsite, or impede or redirect floodflows. As a result, operation of the Project would not create a cumulatively considerable impact related to exceeding the capacity of existing or proposed stormwater drainage systems, flooding onsite or offsite, or impeding or redirecting floodflows; therefore, these cumulative impacts would be ***less than significant with mitigation***.

Impact C-WQ-4: Cumulative Release of Pollutants Due to Inundation. In flood hazard, tsunami, or seiche zones, the Project, in combination with other foreseeable development in the vicinity, would not risk the release of pollutants due to inundation with implementation of mitigation. (Less than Significant with Mitigation)

The Project site and the sites for cumulative projects are not within a Tsunami Hazard Area.[59] The Project site would not be subject to inundation by seiches, as described under Impact WQ-4, and cumulative projects would also not be subject to inundation by seiches for the same reasons. Therefore, ***no cumulative impacts*** related to the release of pollutants in the event of a tsunami or seiche would occur.

Construction

If hazardous materials are stored for construction of the cumulative projects within special flood hazard areas and flooding occurs, the cumulative projects could risk the release of pollutants, which would be a significant cumulative impact. However, implementation of Mitigation Measure WQ-3.2 would ensure that the Project's contribution would not be considerable by requiring hazardous materials not to be stored in special flood hazard areas. As a result, construction of the Project would not create a cumulatively considerable impact related to the release of pollutants due to inundation; therefore, this cumulative impact would be ***less than significant with mitigation.***

Operation

The cumulative projects (e.g., Patrick Henry Specific Plan, Freedom Circle Focus Area, City Place) that are intersected by special flood hazard areas would be designed to accommodate future flooding conditions in accordance with the requirements of Chapter 15.45 of the City Code. As described under Impact WQ-4, the Project has been designed to accommodate future flooding conditions and SLR; therefore, operation of the Project would not result in a risk related to the release of pollutants due to flooding, and this cumulative impact would be ***less than significant***.

[59] California Geologic Survey. 2021. *Tsunami Hazard Area Map, County of Santa Clara*. July 8.

Impact C-WQ-5: Cumulative Conflicts with a Water Quality Control Plan or Sustainable Groundwater Management Plan. With implementation of mitigation, the Project, in combination with other foreseeable development in the vicinity, would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. (Less than Significant with Mitigation)

Construction

As discussed under Impact C-WQ-1, stormwater runoff and groundwater from dewatering associated with construction of cumulative projects and the Project would be managed, treated, and monitored in accordance with NPDES permit requirements, including the Construction General Permit, to protect water quality. As discussed under Impact WQ-1, the Project would also be required to implement Mitigation Measures WQ-1.1 and HAZ-2.1 to further ensure the protection of groundwater and surface water quality during construction. As discussed under Impact C-WQ-2, construction dewatering by the cumulative projects could result in decreased groundwater supplies and subsidence, which would be a significant cumulative impact related to conflicting with the GMP for the Santa Clara and Llagas Subbasins. As described under Impact WQ-2, implementation of Mitigation Measures WQ-1.1 and GEO-3.1 would ensure that construction of the Project would not substantially decrease groundwater supplies or impede sustainable groundwater management of the basin. As a result, construction of the Project would not create cumulatively considerable impacts related to conflicting with or obstructing implementation of the Basin Plan or GMP for the Santa Clara and Llagas Subbasins; therefore, the Project's contribution to cumulative impacts would not be considerable. The impact would be ***less than significant with mitigation.***

Operation

As discussed under Impact C-WQ-1, stormwater runoff during operation of the Project would be managed and treated in accordance with the MRP. Cumulative projects would also be required to comply with the MRP to protect water quality. As described under Impact WQ-1, the Project would be required to implement Mitigation Measures WQ-1.2 and HAZ-2.1 to ensure the protection of groundwater during operation. Furthermore, as discussed under Impact C-WQ-2, the use of groundwater by the cumulative projects for the water supply could result in decreased groundwater supplies and subsidence, which would be a significant cumulative impact related to conflicting with the GMP for the Santa Clara and Llagas Subbasins. As described under Impact WQ-2, implementation of Mitigation Measure WQ-2.1 would ensure that operation of the Project would not substantially decrease groundwater supplies or impede sustainable groundwater management of the basin. As a result, operation of the Project would not create cumulatively considerable impacts related to conflicting with or obstructing implementation of the Basin Plan or GMP for the Santa Clara and Llagas Subbasins; therefore, the Project's contribution to cumulative impacts would not be considerable. The impact would be ***less than significant with mitigation.***

3.11 Hazards and Hazardous Materials

This section describes the existing regulatory setting and environmental conditions related to hazards and hazardous materials within and around the Mission Point Project (Project) site and evaluates the potential for impacts with respect to hazards and hazardous materials that would result from development of the Project.

Comments pertaining to hazards and hazardous materials were received in response to the Notice of Preparation (NOP) (Appendix 1).[1] According to one comment, the Federal Aviation Administration (FAA) stated that the building height was too high. The commenter asked what has been done to address the FAA concern. Potential aviation hazards and review of the Project by the FAA are discussed below.

Existing Conditions

Regulatory Setting

Federal

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) is the federal agency responsible for enforcement and implementation of federal laws and regulations pertaining to hazardous materials and hazardous waste. The federal regulations are codified primarily in Title 40 of the Code of Federal Regulations (CFR). The legislation includes the Resource Conservation and Recovery Act of 1976 (RCRA), Toxic Substances Control Act (TSCA), the Superfund Amendments and Reauthorization Acts of 1986, and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980. EPA provides oversight for certain site investigation and remediation projects and has developed protocols for sampling, testing, and evaluating solid wastes.

In 1989, EPA issued a final rule that banned most asbestos-containing products. In 1991, this regulation was overturned. As a result of the court's decision, the 1989 asbestos regulation bans only new uses of asbestos in products initiated after 1989 as well as the following specific asbestos-containing products: flooring felt, rollboard, and corrugated, commercial, or specialty paper.[2]

Resource Conservation and Recovery Act

RCRA is a combination of the first federal solid waste statutes and all subsequent amendments mandated by Congress. Solid waste includes solids, liquids, and gases. RCRA establishes the framework for a national system of solid waste control. Subtitle C focuses on hazardous solid waste. Subtitle D is dedicated to non-hazardous solid waste. Under Subtitle C of RCRA, EPA has developed a comprehensive program to ensure that hazardous waste is managed safely from the moment it is generated to its final disposal (i.e., “cradle to grave”). EPA may authorize states to implement key provisions of hazardous waste requirements in lieu of the federal government. If a state program does not exist, EPA implements the hazardous waste

[1] The version of the Project that was the subject of this NOP included much taller buildings. The Project was subsequently redesigned to its current form with reduced building heights that are below FAA limits.

[2] U.S. Environmental Protection Agency. 2022. *Asbestos Ban and Phase-Out Federal Register Notices*. Available: https://www.epa.gov/asbestos/asbestos-ban-and-phase-out-federal-register-notices. Accessed: August 24, 2023.

requirements in that state directly. Subtitle C regulations set criteria for hazardous waste generators, transporters, and treatment, storage, and disposal facilities. This includes permitting, enforcement, and corrective action or cleanup.

Toxic Substances Control Act

TSCA gives EPA the authority to require reporting, record-keeping, and testing and enact restrictions related to chemical substances and mixtures. TSCA addresses the production, importation, use, and disposal of specific chemicals, including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint. Under TSCA, manufacturing involving PCBs has been banned in the United States since 1979. PCBs or PCB-contaminated items require proper offsite transport and disposal at a facility that can accept such wastes, in accordance with TSCA and other federal and state regulations.

Occupational Safety and Health Administration

Worker health and safety is regulated at the federal level by the Occupational Safety and Health Administration (OSHA). The federal Occupational Safety and Health Act of 1970 authorizes the states to establish their own safety and health programs with OSHA approval. Worker health and safety protections in California are regulated by the California Occupational Safety and Health Administration (known as Cal/OSHA), as described below. California standards for workers dealing with hazardous materials are contained in California Code of Regulations (CCR) Title 8; they include practices for all industries (i.e., General Industrial Safety Orders) as well as specific practices for construction. Workers at hazardous waste sites, or workers who may be exposed to hazardous wastes that might be encountered during excavation of contaminated soils, must receive specialized training and medical supervision according to OSHA Hazardous Waste Operations and Emergency Response regulations. Additional regulations have been developed for construction workers potentially exposed to lead and asbestos. Cal/OSHA enforcement units conduct onsite evaluations and issue notices of violation to enforce necessary improvements to health and safety practices.

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act (HMTA) of 1975 is the statutory basis for the extensive body of regulations aimed at ensuring the safe transport of hazardous materials on water, rail, or highways; by air; or in pipelines. It includes provisions for material classification, packaging, marking, labeling, placarding, and shipping documentation.

Hazardous Materials Transportation Uniform Safety Act of 1990

In 1990, Congress enacted the Hazardous Materials Transportation Uniform Safety Act (HMTUSA) to clarify the maze of conflicting state, local, and federal regulations. Like the HMTA, the HMTUSA requires the Secretary of Transportation to promulgate regulations for the safe transport of hazardous materials in intrastate, interstate, and foreign commerce. The secretary also retains authority to designate materials as hazardous when they pose unreasonable risks to health, safety, or property. The statute includes provisions to encourage uniformity among different state and local highway routing regulations, develop criteria for the issuance of federal permits to motor carriers of hazardous materials, and regulate the transport of radioactive materials.

Department of Transportation

The U.S. Department of Transportation (DOT) developed hazardous materials regulations, which govern the classification, packaging, communication, transport, and handling of hazardous materials, along with employee training and incident reporting. The transport of hazardous materials is subject to both RCRA and DOT regulations. The California Highway Patrol, California Department of Transportation (Caltrans), and the Department of Toxic Substances Control (DTSC) are responsible for enforcing federal and State of California (State) regulations pertaining to the transport of hazardous materials.

Federal Aviation Regulations Part 77

Federal Aviation Regulations (FAR) Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace, establishes:

- Requirements to provide notice to the FAA of certain proposed construction or the alteration of existing structures
- Standards to determine obstructions to air navigation as well as navigational and communication facilities;
- The process for aeronautical studies of obstructions to air navigation or navigational facilities to determine the effect on the safe and efficient use of navigable airspace, air navigation facilities, or equipment
- The process for petitioning the FAA for discretionary review of determinations, revisions, and extensions of determinations

FAR Part 77 requires FAA notification of any construction or alteration more than 200 feet above ground level. FAR Part 77 also establishes imaginary surfaces for airports and runways as a means of identifying objects that are obstructions to air navigation. Each surface is defined as a slope ratio or at a certain altitude above the airport elevation. The FAA uses FAR Part 77 obstructions standards as elevations above which structures may constitute a safety hazard. Any penetrations of the FAR Part 77 surface are subject to review on a case-by-case basis by the FAA, which evaluates the penetration according to the published flight patterns for the airport as they existed at the time. If a safety problem is found to exist, the FAA may issue a determination of a hazard to air navigation. The FAA does not have the authority to prevent the encroachment; however, California law can prevent the encroachment if the FAA has made a determination of a hazard to air navigation. The local jurisdiction can establish and enforce height restrictions.[3]

State

California Environmental Protection Agency/Department of Toxic Substances Control

One of the primary agencies that regulates hazardous materials is the California Environmental Protection Agency (CalEPA). The State, through CalEPA, is authorized by EPA to enforce and implement certain federal hazardous materials laws and regulations. California regulations pertaining to hazardous materials are equal to or exceed the federal requirements. In partnership with local agencies, many of the hazardous materials and hazardous waste statutes and regulations are overseen by a local Certified Unified Program Agency (CUPA) in coordination with one of the implementing State agencies. As an

[3] Windus, Walter B. 2011. *Comprehensive Land Use Plan for San José International Airport*. Santa Clara County Airport Land Use Commission. Adopted: May 25, 2011. Amended: November 16, 2016.

example, DTSC oversees the hazardous waste program for the State. DTSC works with its local CUPA on implementation of the hazardous waste program. If a site has been found to have contamination, it can act as a lead agency for soil and groundwater cleanup projects that affect public health. It establishes cleanup levels for subsurface contamination that are equal to or more restrictive than federal levels. DTSC has also developed land disposal restrictions and treatment standards for hazardous waste disposal in California.

California Health and Safety Code

California Health and Safety Code Division 20, Chapter 6.5, Hazardous Waste Control, the primary hazardous waste statute in the state, implements RCRA as a "cradle-to-grave" waste management system in California. It specifies that generators have primary responsibility for determining whether their wastes are hazardous and ensuring proper management. It also establishes criteria for hazardous wastes used or reused as raw materials. The code meets or exceeds federal requirements by mandating source reduction planning and a much broader requirement for permitting facilities that treat hazardous waste. It also regulates the types of wastes and waste management activities that are not covered by federal law with RCRA.

Section 19827.5 of the California Health and Safety Code requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with the notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos.

California Code of Regulations

Most federal and State regulations and requirements that apply to generators of hazardous waste are spelled out in CCR Title 22, Division 4.5. Title 22 contains detailed compliance requirements for hazardous waste generators, transporters, and treatment, storage, and disposal facilities. Because California is a fully authorized state, according to RCRA, most RCRA regulations (e.g., those contained in 40 CFR 260 et seq.) have been duplicated and integrated into Title 22. However, because DTSC regulates hazardous waste more stringently than EPA, the integrated federal and State hazardous waste regulations that make up Title 22 do not contain as many exemptions or exclusions as 40 CFR 260. As with the California Health and Safety Code, Title 22 also regulates a wider range of waste types and waste management activities than the RCRA regulations in 40 CFR 260.

Fluorescent lighting tubes and ballasts, computer displays, and several other common items containing hazardous materials, including mercury, a heavy metal, are regulated as "universal wastes" under CCR Title 22. Universal waste regulations allow common, low-hazard wastes to be managed under less stringent requirements than other hazardous wastes.

Government Code Section 65962.5

The provisions of Government Code Section 65962.5 require DTSC, the State Water Resources Control Board (State Water Board), the California Department of Health Services, and the California Department of Resources Recycling and Recovery, formerly the California Integrated Waste Management Board, to submit information pertaining to sites associated with solid waste disposal, hazardous waste disposal, underground storage tanks (USTs), and/or hazardous materials releases to the secretary of CalEPA.

State Water Resources Control Board

Under the Porter-Cologne Water Quality Control Act (California Water Code, Division 7), the State Water Board has authority over State waters and water quality. "Waters of the state" are defined as "any surface

water or groundwater, including saline waters, within the boundaries of the state" (Water Code Section 13050[e]). The State Water Board enforces regulations on implementation of UST programs. It also allocates funding to eligible parties that request reimbursement of costs to clean up soil and groundwater pollution from UST leaks. The State Water Board also enforces the Porter-Cologne Water Quality Control Act through its nine Regional Water Quality Control Boards (Regional Water Boards), including the San Francisco Bay Regional Water Board, which has jurisdiction over the Bay Area, including the Project site. The State Water Board issued the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Associated with Construction Activity (Construction General Permit), Order 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-006-DWQ, which addresses management of hazardous materials at construction sites that disturb more than 1 acre of land (described in detail in Section 3.10*, Hydrology and Water Quality*).

California Department of Public Health

Transport and disposal of medical wastes are closely regulated by the California Department of Public Health, which regulates the generation, handling, storage, treatment, and disposal of medical waste by providing oversight for the implementation of the Medical Waste Management Act (California Health and Safety Code Sections 117600–118360). Local agencies can implement a medical waste management program pursuant to the Medical Waste Management Act.

California Air Resources Board

The California Air Resources Board (CARB) is responsible for coordination and oversight of State and local air pollution control programs in California, including implementation of the California Clean Air Act of 1988. CARB has developed State air quality standards and is responsible for monitoring air quality in conjunction with the local air districts.

California Fire Code

The California Fire Code is Part 9 of CCR Title 24, also referred to as the California Building Standards Code. The California Fire Code incorporates the latest International Fire Code of the International Code Council, with necessary California amendments. The purpose of the California Fire Code is to establish minimum requirements consistent with nationally recognized good practices to safeguard the public, as well as firefighters and emergency responders, from hazards such as fire, explosion, or dangerous conditions in new or existing buildings and other structures.

Design and construction requirements for laboratory environments are specifically addressed by the California Fire Code. The requirements encompass the use and storage hazardous or flammable materials as well as the installation of exhaust systems, which are required to incorporate fire suppression systems.

California Division of Occupational Safety and Health

Worker health and safety protections in California are regulated by Cal/OSHA. California standards for workers dealing with hazardous materials are contained in CCR Title 8; they include practices for all industries (General Industrial Safety Orders) as well as specific practices for construction. Workers at hazardous waste sites, or workers who may be exposed to hazardous wastes that might be encountered during excavation of contaminated soils, must receive specialized training and medical supervision according to OSHA Hazardous Waste Operations and Emergency Response regulations. Additional regulations have been developed for construction workers potentially exposed to lead and asbestos. Cal/OSHA enforcement units conduct onsite evaluations and issue notices of violation to enforce

necessary improvements to health and safety practices. Like OSHA at the federal level, Cal/OSHA is the State-level agency responsible for ensuring workplace safety. Specifically, Cal/OSHA assumes primary responsibility for adoption and enforcement of standards regarding workplace safety and safety practices. In the event that a site is contaminated, a Site Safety Plan is prepared and implemented to protect the safety of workers. Site Safety Plans establish policies, practices, and procedures to prevent the exposure of workers and members of the public to hazardous materials originating from a contaminated site or building.

Occupational health and safety for laboratory environments is specifically addressed in Article 107 of the Group 16 regulations, Sections 5139–5155, Control of Hazardous Substances. Subsection 5154.1 discusses requirements for the ventilation of laboratory fumes, including the design and operation of hoods, the movement of air, and the design of exhaust stacks. In addition, the circumstances under which air dilution or air cleaning is required (e.g., scrubbing or air incineration), as well as decontamination procedures, are described.

California Department of Transportation

Caltrans has primary responsibility for enforcing federal and State regulations and responding to hazardous materials emergencies resulting from transportation. Caltrans is the first responder for hazardous material spills and releases that occur on highways and freeways or intercity rail facilities.

California Highway Patrol

The California Highway Patrol (CHP) is responsible for ensuring the safe, convenient, and efficient movement of people and goods on the state highway system. CHP implements the Commercial Vehicle Safety Program, which includes enforcement, education, and partnerships to minimize the disastrous results of collisions involving commercial vehicles. CHP's Commercial Vehicle Section provides assistance for the safe operation of commercial vehicles.

Common carriers are licensed by CHP, pursuant to California Vehicle Code Section 32000, which requires licensing every motor (common) carrier who transports, for a fee, more than 500 pounds of hazardous materials at one time and every carrier who transports more than 1,000 pounds of hazardous material of a type requiring placards. Hazardous material deliveries are a large part of common carriers' business.

Pursuant to Division 14.3 of the California Vehicle Code, CHP has adopted regulations for the safe operation of vehicles while transporting materials that are poisonous by inhalation. The regulations designate the routes, stopping places, and inspection areas to be used while transporting bulk shipments of such materials.

Vehicle and equipment inspections, shipment preparation, container identification, and shipping documentation are all part of CHP's responsibilities. CHP conducts regular inspections of licensed transporters to ensure regulatory compliance and responds to hazardous materials emergencies on roadways.

Regional

San Francisco Bay Regional Water Quality Control Board

The Porter-Cologne Water Quality Control Act established the State Water Board and divided the state into nine regional basins, each under the jurisdiction of a Regional Water Board. The Region 2 Regional Water Board regulates water quality in the Bay Area, including the Project site. The Regional Water Board

has the authority to require groundwater investigations when the quality of groundwater or surface water of the state is threatened and require remediation actions, if necessary. The Regional Water Board has developed environmental screening levels (ESLs) to help expedite the preparation of environmental risk assessments at sites where contaminated soil and groundwater have been identified. The Regional Water Board issued Municipal Regional Stormwater NPDES Permit Order R2-2022-0018, NPDES Permit No. CAS612008, which addresses the potential discharge of hazardous materials in municipal stormwater from municipalities in the Bay Area (described in detail in Section 3.10*, Hydrology and Water Quality*).

Bay Area Air Quality Management District

The Bay Area Air Quality Management District (BAAQMD) has primary responsibility for controlling air pollution from sources other than motor vehicles and consumer products, which are the responsibility of the EPA and CARB. BAAQMD is responsible for preparing attainment plans for non-attainment criteria pollutants, controlling stationary air pollutant sources, and issuing permits for activities such as asbestos removal.

BAAQMD Rule 11-2 requires the owner of a property to thoroughly survey any affected structure or portion thereof for the presence of asbestos-containing materials (ACMs) prior to commencement of demolition or renovation. The survey must be performed by a person who is certified by the Division of Occupational Safety and Health, who has taken and passed an EPA-approved building inspector course, and who conforms to the requirements outlined in the course. The survey must include sampling and reporting the results of laboratory analysis of the content of all suspected ACMs. This survey must be made available, upon request by the air pollution control officer, prior to the commencement of regulated ACM removal or demolition. If ACMs are identified, the disturbance/removal and management of ACMs must be performed in accordance with BAAQMD regulations under Rule 11-2, ensuring that asbestos will not be released into the environment.

Santa Clara County Department of Environmental Health

The Santa Clara County Department of Environmental Health (DEH) oversees the Medical Waste Management Program in the county through implementation and enforcement of regulations that apply to the handling, storage, treatment, and disposal of medical waste. The Hazardous Materials Compliance Division (HMCD) within the DEH is responsible for the UST Local Oversight Program. Through the program, HMCD manages the cleanup of areas contaminated by UST releases and oversees the cleanup of properties contaminated by hazardous materials not exclusively associated with petroleum USTs through implementation of the Site Cleanup Program.

Santa Clara County Airport Land Use Commission

The Santa Clara Airport Land Use Commission (ALUC) was established to ensure appropriate development of areas surrounding public airports in Santa Clara County. Its intent is to minimize the public's exposure to excessive noise and safety hazards and ensure that the approaches to airports are kept clear of structures that could pose an aviation hazard. The ALUC formulates and maintains Comprehensive Land Use Plans (CLUPs) for airports within the county. The ALUC reviews general plans and applicable specific plans for the county as well as the cities of San José and Santa Clara to determine if the plans and regulations are consistent with the policies of the CLUP for San José International Airport. The ALUC also reviews proposed amendments to general plans, specific plans, and zoning and building regulations that may affect land uses in the Airport Influence Area (AIA) of San José International Airport to determine if the proposed amendments are consistent or inconsistent with the CLUP. The ALUC encourages local jurisdictions to submit referrals to the commission for developments that include the

construction of structures that would be more than 200 feet above ground level to verify compliance with FAR Part 77 and ALUC policies.

Santa Clara County Operational Area Hazard Mitigation Plan

The Santa Clara County Operational Area Hazard Mitigation Plan (County Hazard Mitigation Plan),[4] adopted in 2017, was developed to reduce risks from natural disasters in unincorporated portions of the county and all incorporated cities in Santa Clara County. The events discussed in the plan include earthquakes, floods, severe weather, dam and levee failure, landslides, wildfire, and drought. The County Hazard Mitigation Plan comprises Volume 1 (Operational Area-Wide Elements) and Volume 2 (Planning Partner Annexes). The plan complies with federal and State hazard mitigation planning requirements to establish eligibility for funding under Federal Emergency Management Agency grant programs.

Local

City of Santa Clara Emergency Operations Plan

The City of Santa Clara's (City's) Emergency Operations Plan (EOP) provides an all-hazard, all-risk framework for collaboration among responsible entities and coordination of emergency activities during large-scale incidents in Santa Clara. The EOP consists of two parts: the Basic Plan and the Annexes. The Basic Plan addresses the planned response of the City to extraordinary emergency situations. The first five annexes contain "functional" guidance for conducting business in the Emergency Operations Center. The rest of the annexes cover hazard-specific response plans, which are organized along the same pattern as the EOP. [5] Annex L of the EOP is the City's Local Hazard Mitigation Plan, prepared in conjunction with the County Hazard Mitigation Plan, which identifies the capabilities and vulnerabilities of the City and identifies hazard mitigation actions.[6]

City of Santa Clara Community Risk Reduction Division

The City is a CUPA that has been certified by CalEPA. The City has been a CUPA since March 1997. The City's Community Risk Reduction Division oversees the CUPA program on behalf of the City. It coordinates the implementation of various hazardous materials and hazardous wastes statutes and regulations in the City through the Hazardous Waste Generator Program, UST Program, Aboveground Petroleum Storage Act Program, Hazardous Materials Business Plan (HMBP) Program, and California Accidental Release Prevention Program. Implementation of each program is coordinated with the corresponding State agency that oversees the specific program state-wide.

The role of a CUPA is to consolidate, coordinate, and makes consistent the administrative requirements, permits, inspections, and enforcement activities associated with the regulation of hazardous materials and hazardous wastes. Businesses that store or use hazardous materials in the City are required to submit

[4] Office of Emergency Services, County of Santa Clara, and Santa Clara County Fire Department. 2017. *Santa Clara County Operational Area Hazard Mitigation Plan*. Volume 1: Operational Area-Wide Elements. October 15. Available: https://www.santaclaraca.gov/home/showpublisheddocument/63770/636905967892030000. Accessed: August 24, 2023.

[5] City of Santa Clara. 2016. *Emergency Operations Plan, All Risk/Multi-hazard Functional Plan.* Adopted on June 21, 2016, by the City Council. Available: https://www.santaclaraca.gov/home/showdocument?id=69283#:~:text=The%20City%20of%20Santa%20Clara,scale%20incidents%20in%20Santa%20Clara. Accessed: November 16, 2022.

[6] City of Santa Clara. 2017. *City of Santa Clara Emergency Operations Plan, Annex L, Local Hazard Mitigation Plan.* Volume 2, October 15. Available: https://www.santaclaraca.gov/home/showpublisheddocument/63772/637655615202030000. Accessed: August 24, 2023.

chemical and facility information through the California Environments Reporting System, which is a statewide web-based system that supports CUPAs by collecting hazardous materials data, as mandated by the California Health and Safety Code and 2008 legislation (i.e., Assembly Bill [AB] 2286).

City of Santa Clara 2010–2035 General Plan

City of Santa Clara 2010–2035 General Plan (General Plan) policies applicable to hazards and hazardous materials include the following:[7]

- *Policy 5.10.5-P1*: Use the City's Local Hazard Mitigation Plan as the guide for emergency preparedness in Santa Clara.
- *Policy 5.10.5-P2*: Work with school districts and other public/quasi-public building owners to use facilities as shelters in the event of emergencies.
- *Policy 5.10.5-P3*: Require that special occupancy buildings, and other structures that support protection of community health and safety, remain operative during emergencies.
- *Policy 5.10.5-P4*: Identify appropriate evacuation routes so people can be efficiently evacuated in the event of a natural disaster.
- *Policy 5.10.5-P22*: Regulate development on sites with known or suspected contamination of soil and/or groundwater to ensure that construction workers, the public, future occupants, and the environment are adequately protected from hazards associated with contamination, in accordance with applicable regulations.
- *Policy 5.10.5-P23*: Require appropriate cleanup and remediation of contaminated sites.
- *Policy 5.10.5-P24*: Protect city residents from the risks inherent in the transport, distribution, use, and storage of hazardous materials.
- *Policy 5.10.5-P25*: Use best management practices to control the transport of hazardous substances and identify appropriate haul routes to minimize community exposure to potential hazards.
- *Policy 5.10.5-P26*: Survey pre-1980 buildings and abate any lead-based paint and asbestos prior to structural renovation and demolition, in compliance with all applicable regulations.
- *Policy 5.10.5-P28*: Continue to require all new development and subdivisions to meet or exceed the City's adopted fire code provisions.
- *Policy 5.10.5-P29*: Continue to refer proposed projects located within the Airport Influence Area to the Airport Land Use Commission.
- *Policy 5.10.5-P30*: Review the location and design of development within Airport Land Use Commission jurisdiction for compatibility with the Airport Land Use Compatibility Plan.
- *Policy 5.10.5-P32*: Encourage all new projects within the Airport Influence Area to dedicate an avigation easement.
- *Policy 5.10.5-P33*: Limit the height of structures in accordance with Federal Aviation Administration Federal Aviation Regulations (FAR Part 77 criteria).

[7] City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan*. Chapter 5: Goals and Policies. Available: http://santaclaraca.gov/home/showdocument?id=13934. Accessed: October 25, 2022.

Environmental Setting

Soil and Groundwater Contamination

A Phase I Environmental Site Assessment (ESA),[8] prepared for the Project site in 2022, summarized past land uses at the site and the findings from previous environmental investigations performed at the site. The 2022 Phase I ESA also included a review of regulatory agency records for the Project site and surrounding areas. The information below was obtained from the 2022 Phase I ESA.

The Project site was historically used for agricultural purposes (row crops). During the 1970s, the Project site was developed with commercial buildings. Buildings on the Project site have been used for office space, warehousing, manufacturing (electronics and medical equipment), research and development, and laboratory space. Former manufacturing activities on the Project site involved the use and storage of hazardous materials, as discussed below. Six buildings on the Project site that had been located south of Democracy Way were demolished in 2011. That area of the Project site was subsequently used for event parking associated with Levi's Stadium.

The hazardous materials that were once used in manufacturing and stored in the existing building on the Project site at 3000 Tasman Drive included solvents (e.g., trichloroethylene, methyl-ethyl-ketone, and acetone), acids, and photochemical and paint-related products. Soil sampling was conducted near a clarifier and associated piping at the building in 2004; the sampling did not find affected soil. The 2022 Phase I ESA recommends that the clarifier be removed prior to redevelopment of the Project site and that the Santa Clara Fire Department be contacted to determine if any removal permits or additional sampling should be required.

The hazardous materials that were once used in manufacturing and stored in the buildings that were formerly located in the southern portion of the Project site included flux, flux thinner, lead solder, refrigerants, unspecified solvents, swimming pool chemicals, and photochemical and paint-related products, among others. Multiple diesel-fueled generators were also located in the southern portion of the Project site. Most of the generators appear to have had integral aboveground diesel storage tanks. However, one generator was connected to a 400-gallon diesel UST—it appears to have been categorized as a UST because it was located in a recessed secondary containment vault. Building plans from 1976 depict a "future oil tank" at two locations near former boilers in the southern portion of the Project site. The two "future oil tank" locations appear to have been planned UST locations for fuel oil; however, it is not known if the USTs were ever installed. No other documents pertaining to these possible USTs were identified by the data sources reviewed during the 2022 Phase I ESA, which included building department records, fire department records, and many other regulatory databases.[9] These data sources would very likely have contained information regarding these possible USTs if they had had been installed at the Project site.

Several subsurface investigations were completed at the Project site between 1989 and 1994. These investigations identified relatively low levels of volatile organic compounds (VOCs) in groundwater at the site. The detected VOCs included Freon 113, 1,1-dichlroroethane, 1,1-dichloroethene, 1,1,1-trichloroethane, and chloroform. In 1994, the Regional Water Board issued a case closure letter for the contamination identified at the Project site and required all monitoring wells to be properly closed. In

[8] Cornerstone Earth Group. 2022. *Phase I Environmental Site Assessment, 49-Acre Old Ironsides Drive, Tasman Drive, Democracy Way, and Patrick Henry Drive Parcels, Santa Clara, California.* July 25.

[9] Cornerstone Earth Group. 2022. *Phase I Environmental Site Assessment, 49-Acre Old Ironsides Drive, Tasman Drive, Democracy Way, and Patrick Henry Drive Parcels, Santa Clara, California.* July 25.

1995, the monitoring wells were destroyed under permits from the Santa Clara Valley Water District. The reports documenting the investigations discussed above and the case closure letter from the Regional Water Board were not reviewed as part of the 2022 Phase I ESA, which indicates that the aforementioned information was obtained from a review of the 2006 Phase I ESA. The 2022 Phase I ESA indicates that the Project site does not appear to be subject to any further regulatory requirements associated with the previously detected VOCs.

The 2022 Phase I ESA summarizes findings from a preliminary Phase II investigation performed at the Project site in 2016 that included soil, soil vapor, and groundwater sampling in locations of potential concern (e.g., hazardous materials storage areas, a sump/clarifier, possible UST locations) and in downgradient areas with respect to groundwater flow, which appears to have been toward the north, from buildings that appear to have been used historically for manufacturing purposes. Due to past use of the Project site for agricultural purposes, some soil samples were analyzed for organochlorine pesticides (OCPs) and pesticide-related metals (e.g., arsenic, lead, mercury). Concentrations of OCPs were sporadically detected below residential and commercial screening levels, and metals associated with pesticides were detected at concentrations that were typical of background/ambient concentrations. VOCs were not detected in the groundwater samples, and relatively low levels of total petroleum hydrocarbons (TPH) as diesel and motor oil were detected in two groundwater samples. Several VOCs were detected in soil vapor samples, including concentrations of benzene, chloroform, and tetrachloroethylene (PCE) that exceeded current residential screening levels.

The 2022 Phase I ESA summarizes findings from a Phase II soil, groundwater, and soil vapor evaluation performed for the Project site in 2020 to supplement the 2016 findings discussed above. Laboratory analyses of soil samples did not detect concentrations of OCPs, polycyclic aromatic hydrocarbons, PCBs, VOCs, TPH, or asbestos greater than residential environmental screening criteria. Detected concentrations of metals were either less than their respective residential environmental screening criteria or typical of natural background concentrations for the region. One soil sample contained a concentration of soluble chromium that exceeded California's hazardous waste threshold, which is not a human health–related risk-based threshold but is used to categorize waste for landfill disposal. VOCs, including 1,1-dichloroethene and acetone, were detected in groundwater at concentrations below the Regional Water Board's Tier 1 ESLs. [10] Several soil vapor samples contained concentrations of VOCs that exceeded commercial and/or residential screening levels; these included PCE, benzene, TPH as gasoline, and 1,2-dichlroroethane. Methane was also detected in some soil vapor samples, at concentrations that exceeded the action levels recommended by DTSC. Methane was detected at a concentration of 12 percent in one sample, which exceeded the lower explosive limit for methane (i.e., 5 percent). Methane from soil vapor can accumulate in enclosed spaces (e.g., small rooms, utility vaults, wall spaces) and then cause a fire or explosion when an ignition source is present.

The 2022 Phase I ESA contains the following conclusions and recommendations:

- The source of the methane in soil vapor is unclear. The presence of methane and VOCs at concentrations exceeding screening levels suggests that vapor intrusion mitigation measures may be required for some of the planned buildings. The need for vapor intrusion mitigation would depend on the building location, intended use, building design, and the methane and VOC concentrations present in soil vapor at the time of construction. Additional soil vapor sampling should be performed when

[10] Tier 1 ESLs are the most conservative ESLs established by the Regional Water Board and account for all possible exposure pathways and receptors.

the locations and the planned uses for the Project site are finalized and building construction details are available.

- A Site Management Plan (SMP) and Health and Safety Plan should be prepared for the proposed demolition and redevelopment activities to establish appropriate management practices for handling affected soil, soil vapor, and groundwater that may be encountered during construction. If encountered, these materials may require special monitoring, handling, and/or disposal. Obtaining regulatory oversight review of the SMP should also be considered.
- If the Project would require importing soil for grading, the source and quality of the soil should be documented. DTSC's October 2001 Clean Fill Advisory provides guidance on evaluating imported fill.
- If the Project would involve excavation and offsite disposal of soil, additional sampling should be performed to profile the soil for appropriate offsite disposal.
- No hazardous materials releases have been reported in the vicinity of the Project site that would be likely to significantly affect the Project site. However, as is typical in many commercial areas, several hazardous materials users were reported in the vicinity of the Project site. If leaks or spills occur at these facilities, contamination could affect the Project site, depending on the location of the property, the magnitude of the release, and the effectiveness of cleanup efforts.
- Based on the age of the existing buildings on the Project site, building materials may contain asbestos. Prior to building demolition, and asbestos survey would be required by local authorities and/or National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines. NESHAP guidelines require the removal of potentially friable ACMs prior to building demolition.
- Based on the age of the existing buildings on the Project site, lead-containing paint may be present. The removal of lead-containing paint is not required prior to building demolition if it is bonded to the building materials. However, if the lead-containing paint is flaking, peeling, or blistering, it should be removed prior to demolition. In either case, applicable OSHA regulations must be followed, including requirements for worker training, air monitoring, and dust control, among others. Debris or soil containing lead must be disposed of appropriately.

Hazardous Building Materials

Hazardous materials are commonly found in building materials, such as lead-containing paint, ACMs, PCBs in materials and equipment, and mercury-containing lights and devices. Asbestos is a known human carcinogen that was commonly used in building materials until the early 1980s. Asbestos-containing products remain in use within the United States and include some roof and non-roof coatings and other asbestos-containing building materials.[11]

Prior to 1978, lead compounds were commonly used in exterior and interior paints. Because of its health effects, the application of lead-based paint on residential structures was banned in 1978; however, lead-based paint can be found in commercial or industrial structures, regardless of construction date because its use is still allowed in commercial and industrial applications.[12]

[11] U.S. Environmental Protection Agency. 2017. *Preliminary Information on Manufacturing, Processing, Distribution, Use, and Disposal: Asbestos.* February. Available: https://www.epa.gov/sites/production/files/2017-02/documents/asbestos.pdf. Accessed: November 18, 2022.

[12] Department for Toxic Substances Control. 2006. *Interim Guidance Evaluation of School Sites with Potential Soil Contamination as a Result of Lead from Lead-Based Paint, Organochlorine Pesticides from Termiticides, and Polychlorinated Biphenyls from Electrical Transformers*. June 9 (revised).

PCBs were historically used as coolants and lubricants in transformers, capacitors, heating/cooling equipment, and other electrical equipment. They were also used as plasticizers in paints, plastics, rubber products, and caulking. PCBs have been demonstrated to cause cancer and a variety of other adverse health effects in animals, including effects on the immune system, reproductive system, nervous system, and endocrine system. PCBs may still be found in older electrical equipment and other building materials, such as light ballasts and caulking. PCBs in manufactured materials such as caulking may also move directly into adjoining materials, particularly porous materials such as wood, concrete, and other types of masonry.[13]

EPA has indicated that there was potential widespread use of PCB-containing materials in buildings built or renovated between about 1950 and 1979. Prior to removal, EPA recommends PCB testing of caulk and other building materials that are going to be removed to determine what protections are needed during removal and proper disposal requirements.[14]

Hazardous materials surveys have been performed for the four existing buildings on the project site. Hazardous buildings materials, including ACMs, lead-containing paint, mercury-containing fluorescent light tubes, high-intensity discharge lamps, and refrigerants, have been identified in the existing buildings on the Project site. PCB-containing light ballasts were not observed; however, there are fluorescent light fixtures in the building, and any suspect PCB-containing ballasts must be inspected and disposed of properly prior to building demolition. The existing buildings do not have any solar panels that require disposal. Some materials that could not be sampled were assumed to contain asbestos until sampled. Limited sampling for PCBs in building materials (including caulking and joint/window sealants) was performed; detectable concentrations of PCBs were not reported in the samples. However, sampling for PCBs was not performed in accordance with the guidelines of the Bay Area Stormwater Management Agencies Association (BASMAA). The hazardous materials survey reports indicate that comprehensive building surveys, including destructive sampling, must be conducted prior to building demolition.[15, 16, 17, 18]

Aviation Hazards

Airport-related hazards are generally associated with aircraft accidents, particularly during takeoff and landing. Other airport operation hazards include incompatible land uses, power transmission lines, wildlife hazards (e.g., bird strikes), and tall structures that penetrate the regulated surfaces surrounding an airport. The Project site is adjacent to but outside the AIA of San José International Airport (see Figure 3.1-3 in Section 3.1, *Land Use*). The Project would include utility work within Old Ironsides Drive,

[13] U.S. Environmental Protection Agency. 2015a. *PCBs in Building Materials – Questions & Answers*. July 28. Available: https://www.epa.gov/sites/ production/files/2016-03/documents/pcbs_in_building_materials_questions_and_answers.pdf. Accessed: June 5, 2023.

[14] U.S. Environmental Protection Agency. 2015b. *Practical Actions for Reducing Exposure to PCBs in Schools and Other Buildings, Guidance for School Administrators and Other Building Owners and Managers.* July 28. Available: https://www.epa.gov/sites/production/files/2016-03/documents/practical_actions_for_reducing_exposure_to_pcbs_in_schools_and_other_buildings.pdf. Accessed: August 23, 2023.

[15] Terracon Consultants, Inc. 2021a. *Pre-Demolition Hazardous Materials Survey Report, Building A, 4995 Democracy Way, Santa Clara, California***.** June 15.

[16] Terracon Consultants, Inc. 2021b. *Pre-Demolition Hazardous Materials Survey Report, Building B, 3050-3065 Tasman Drive, Santa Clara, California.* June 16.

[17] Terracon Consultants, Inc. 2021c. *Pre-Demolition Hazardous Materials Survey Report, Building C, 3000 Tasman Drive, Santa Clara, California.* June 16.

[18] Terracon Consultants, Inc. 2021d. *Pre-Demolition Hazardous Materials Survey Report, Building D, 2950 Tasman, Santa Clara, California.* June 16.

which is within the AIA of San José International Airport. The Project site is approximately 1 mile northwest of the nearest Airport Safety Zone of San José International Airport but not within areas that are exposed to aircraft noise (i.e., above 65 decibels) (see Figure 3.1-4 in Section 3.1, *Land Use*). The Project site is in an area where maximum building heights, based on FAR Part 77, range from approximately 350 feet above mean sea level (MSL) in the southeast portion of the Project site to approximately 380 feet MSL in the northwest portion of the Project site (see Figure 3.1-5 in Section 3.1, *Land Use*), as identified in the CLUP for San José International Airport. [19]

Risk of Hazardous Materials Spills

As described in the County Hazard Mitigation Plan, Santa Clara County and its incorporated cities have experienced many localized accidental hazardous materials incidents. Four major highways in the county provide vehicle routes for the transport of large quantities of hazardous materials: US 101 and Interstates 280, 680, and 880. US 101 and Interstate 880 are the most heavily traveled in terms of truck traffic and the most frequent location of hazardous materials spills on major roads.

Environmental Impacts

This section describes the impact analysis related to hazardous materials for the Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each significant impact discussion.

Thresholds of Significance

The Project would have a significant effect if it would result in any of the conditions listed below.

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (HAZ-1 and C-HAZ-1)
- 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-2 and C-HAZ-2)
- Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school (HAZ-3)
- Be located on a site 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-4)
- For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area (HAZ-5 and C-HAZ-3)
- Impair or physically interfere with an adopted emergency response plan or emergency evacuation plan (HAZ-6 and C-HAZ-4)

[19] Windus, Walter B. 2011. *Comprehensive Land Use Plan for San José International Airport*. Santa Clara County Airport Land Use Commission. Adopted: May 25, 2011. Amended: November 16, 2016.

- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires (HAZ-7)

Methods for Analysis

The study area for hazards and hazardous materials is the Project site and areas within a 0.25 mile of the Project site. The 2022 Phase I ESA[20] prepared for the Project site provides information regarding known and potential subsurface contamination at the Project site, as discussed under *Soil and Groundwater Contamination,* above. This information is used as the basis for the analysis of potential impacts related to the accidental release of hazardous materials due to soil and groundwater contamination. The analysis below assumes that the Project would comply with applicable existing regulations related to hazards and hazardous materials during construction and operation of the Project.

Topics Found to Have No Impact

Hazardous Emissions within 0.25 Mile of Schools (HAZ-3). The Project site is not within 0.25 mile of an active or pending school.[21] Therefore, the Project would have ***no impact*** related to hazardous emissions within a 0.25 mile of a school.

Government Code Section 65962.5 (HAZ-4). The Project site is not included on a list of hazardous materials release sites compiled pursuant to Government Code Section 65962.5.[22] Therefore, the Project would have ***no impact*** related to this topic.

Wildfire (HAZ-7). The Project site and surrounding areas are highly urbanized and not located near heavily vegetated areas or wildlands that could be susceptible to wildfire. The Project site and surrounding areas are in a Local Responsibility Area and not within or near a Very High Fire Hazard Severity Zone, as mapped by the California Department of Forestry and Fire Protection (CAL FIRE).[23] Therefore, the Project would have ***no impact*** related to wildland fire hazards.

Impacts and Mitigation Measures

Impact HAZ-1: Routine Transport, Use, or Disposal of Hazardous Materials. 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)

Construction

Hazardous materials (e.g., fuel, oils, paints) would be routinely transported, stored, and used at the Project site during construction activities. Because the Project would result in land disturbance involving more than 1 acre, the management of soil and hazardous materials during construction activities would be subject to the requirements of the NPDES Construction General Permit (described in detail in Section 3.10, *Hydrology and Water Quality*), which requires preparation and implementation of a Stormwater Pollution

[20] Cornerstone Earth Group. 2022. *Phase I Environmental Site Assessment, 49-Acre Old Ironsides Drive, Tasman Drive, Democracy Way, and Patrick Henry Drive Parcels, Santa Clara, California.* July 25.

[21] California Department of Education. 2022. *California School Directory*. Available: https://www.cde.ca.gov/schooldirectory/. Accessed: November 29, 2022.

[22] California Environmental Protection Agency. 2022. *Cortese List Data Resources*. Available: https://calepa.ca.gov/sitecleanup/corteselist/. Accessed: November 23, 2022.

[23] California Department of Forestry and Fire Protection. 2008. *Santa Clara County Very High Fire Hazard Severity Zones in LRA, as Recommended by CAL FIRE*. October 8.

Prevention Plan (SWPPP) that includes hazardous materials storage requirements. For example, construction site operators must store chemicals in watertight containers, with appropriate secondary containment to prevent any spillage or leakage, or in a storage shed that is completely enclosed.

Construction of the Project would result in the generation of various waste materials that would require recycling and/or disposal, including some waste materials that could be classified as hazardous waste. Hazardous materials would be transported by a licensed hazardous waste hauler and disposed of at facilities that are permitted to accept such materials, as required by DOT, RCRA, and State regulations.

Compliance with existing regulations regarding the management, transport, and disposal of hazardous materials, as above and discussed under *Regulatory Setting,* would be mandatory. This would ensure that potential impacts related to the routine transport, use, or disposal of hazardous materials during construction of the Project would be ***less than significant***.

Operation

Operation of the Project would involve the routine storage and use of small quantities of commercially available hazardous materials for routine maintenance (e.g., painting and cleaning); this could also include the generation of medical wastes related to laboratories and research-and-development facilities. Any laboratory spaces on the Project site would be required to be designed, constructed, and operated in accordance with the California Fire Code, which includes requirements for the use and storage of hazardous or flammable materials as well as hazardous or flammable fumes and exhaust systems.

The storage and use of small quantities of commercially available hazardous materials would not pose a significant hazard to the public or environment. Equipment installed at the Project site, such as hydraulic elevator systems, backup generators, and electrical equipment, may involve the storage of hydraulic fluid, fuels, and other hazardous materials. If hazardous materials would be stored in excess of specific quantities during Project operation, the Project would be required to comply with existing hazardous materials regulations, including preparation of an HMBP, which is enforced by the City's Community Risk Reduction Division. The purpose of the HMBP is to ensure that hazardous materials are properly stored and that employees are adequately trained to handle hazardous materials. The HMBP would also provide information to the fire department should an emergency response be required.

The routine transport, use, and disposal of hazardous materials or medical waste during construction and operation of the Project may pose health and safety hazards to workers if the hazardous materials are improperly handled or to the nearby public and the environment if the hazardous materials or medical waste are accidentally released into the environment. Potential impacts associated with accidental releases of hazardous materials into the environment are discussed under Impact HAZ-2, *Accidental Releases of Hazardous Materials,* below.

Compliance with the regulations described under *Regulatory Setting,* above, including OSHA and Cal/OSHA regulations; the California Fire Code; California Health and Safety Code Division 20, Chapter 6.5; CCR; DOT; RCRA; and federal, State, regional, and local regulations, is mandatory, ensuring that the Project would not create a significant hazard to the public or the environment associated with the routine transport, use, or disposal of hazardous materials. Such materials would be properly handled during construction and operation of the Project. Therefore, this impact would be ***less than significant***.

Impact HAZ-2: Accidental Releases of Hazardous Materials. With implementation of mitigation, 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 with Mitigation)

The public and/or the environment could be affected by the release of hazardous materials from the Project site into the environment if 1) hazardous building materials (e.g., lead-containing paint, PCBs, asbestos) were disturbed and released during demolition of existing structures; 2) leakage, spills, or improper disposal of hazardous materials would occur during construction or operation of the Project; or 3) the Project would expose construction workers, the public, the environment, or future occupants of the Project site to contaminated soil, groundwater, or soil vapor during construction or operation of the Project.

Hazardous Building Materials

Construction

As discussed under *Environmental Setting,* above, hazardous buildings materials, including ACMs, lead-containing paint, mercury-containing fluorescent light tubes, high-intensity discharge lamps, and refrigerants, have been identified in the existing buildings on the Project site. Limited sampling of building materials for PCBs was also performed at the Project site; detectable concentrations of PCBs were not reported. However, sampling for PCBs was not performed in accordance with the guidelines of BASMAA. Comprehensive building surveys, including destructive sampling, must be conducted prior to building demolition, as discussed in more detail below.[24, 25, 26, 27]

Disturbance of lead paint would be performed in accordance with applicable laws and regulations, including, but not limited to, Cal/OSHA's Construction Lead Standard; CCR Title 8, Section 1532.1; and Department of Health Services Regulation 17, CCR Sections 35001 through 36100, as may be amended.

The disturbance/removal and management of ACMs must be performed in accordance with Cal/OSHA regulations and BAAQMD regulations under Rule 11-2 prior to the City issuing demolition or renovation permits to ensure that asbestos would not be released into the environment.

Electrical and lighting equipment that may contain hazardous materials, such as mercury and PCBs, can be readily identified. Therefore, they would be identified during the required comprehensive pre-demolition building surveys and appropriately managed/disposed of in accordance with applicable regulations, including TSCA, DTSC hazardous waste rules, and other federal and State regulations (e.g., universal waste regulations). However, PCB-containing building materials, such as caulks/sealants, rubber window seals/gaskets, specialized paints, mastics, and other adhesives, cannot be readily identified and would require testing to evaluate whether these materials contain PCBs.

[24] Terracon Consultants, Inc. 2021a. *Pre-Demolition Hazardous Materials Survey Report, Building A, 4995 Democracy Way, Santa Clara, California***.** June 15.

[25] Terracon Consultants, Inc. 2021b. *Pre-Demolition Hazardous Materials Survey Report, Building B, 3050-3065 Tasman Drive, Santa Clara, California.* June 16.

[26] Terracon Consultants, Inc. 2021c. *Pre-Demolition Hazardous Materials Survey Report, Building C, 3000 Tasman Drive, Santa Clara, California.* June 16.

[27] Terracon Consultants, Inc. 2021d. *Pre-Demolition Hazardous Materials Survey Report, Building D, 2950 Tasman, Santa Clara, California.* June 16.

The Municipal Regional Stormwater NPDES Permit requires all Bay Area municipalities to address potential sources of PCBs; this includes preventing certain building materials that may contain PCBs from entering storm drains as a result of building demolition activities. In order to obtain demolition permits from the City, assessments must be performed at the Project site to screen existing buildings for PCBs in priority building materials, including caulks and sealants, thermal/fiberglass insulation and other insulating materials, adhesive/mastic, and rubber window seals/gaskets. The assessments must be performed in accordance with BASMAA protocols.[28]

In accordance with the existing regulations described above, comprehensive hazardous building materials surveys, including destructive sampling and PCBs sampling in accordance with BASMAA protocols, and hazardous building materials abatement activities must be conducted prior to demolition of existing structures on the Project site.

Hazardous building materials removed prior to demolition activities must be transported in accordance with DOT regulations and disposed of in accordance with the RCRA, TSCA, CCR, and/or the California Universal Waste Rule at a facility permitted to accept the wastes. Compliance with the existing regulations described above is mandatory and would ensure that potential construction impacts of the Project related to the accidental release of hazardous building materials into the environment would be ***less than significant***.

Operation

If operation of the Project would involve the removal and disposal of hazardous building materials such as lead paint, ACMs, mercury-containing lights, or refrigerants, then the removal and disposal of these materials would be performed in accordance with the applicable regulations discussed above. Compliance with the existing regulations described above would be mandatory and would ensure that potential operational impacts of the Project related to the accidental release of hazardous building materials into the environment would be ***less than significant***.

Spills, Leaks, or Improper Disposal of Hazardous Materials

Construction

An accidental release of hazardous materials (e.g., oils, fuels, paints) during construction of the Project could result in the exposure of construction workers, the public, and/or the environment to hazardous materials. As discussed above, construction projects that disturb 1 acre or more of land would be subject to the requirements of the NPDES Construction General Permit, which requires preparation and implementation of a SWPPP to reduce the risk of spills or leaks that might reach the environment, including procedures to address minor spills of hazardous materials. Measures to control spills, leakage, and dumping must be addressed through structural as well as nonstructural best management practices (BMPs). For example, equipment and materials for the cleanup of spills must be available onsite, and spills and leaks must be cleaned up immediately, with contaminated materials disposed of properly. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

As discussed above, the transport of hazardous materials is subject to both federal and State regulations. If a discharge or spill of hazardous materials occurs during transportation, the transporter is required to

[28] City of Santa Clara. 2022. *Managing PCB-Containing Materials during Demolition*. Polychlorinated Biphenyls (PCBs), Screening Assessment Applicant Package. Available: https://www.santaclaraca.gov/home/showpublisheddocument/64431/636966279560430000. Accessed: August 23, 2023.

take appropriate immediate action to protect human health and the environment (e.g., notify local authorities and contain the spill); the transporter is also responsible for the discharge cleanup.

Compliance with existing regulations regarding the management, transport, and disposal of hazardous materials, as discussed under *Regulatory Setting* and Impact HAZ-1, *Routine Transport, Use, or Disposal of Hazardous Materials,* would be mandatory and would ensure that potential impacts related to spills, leaks, or improper disposal of hazardous materials handled during construction of the Project would be ***less than significant***.

Operation

If significant quantities of hazardous materials would be stored at the Project site during operation, or if medical waste would be generated, compliance with City hazardous materials programs, as administered by the Community Risk Reduction Division, and compliance with DEH's Medical Waste Management Program would require hazardous materials and medical waste to be properly labeled, stored, and disposed of; training and planning would also be required to ensure appropriate responses to spills and emergencies.

Compliance with regulations regarding the management, transport, and disposal of hazardous materials, as discussed under *Regulatory Setting* and Impact HAZ-1, *Routine Transport, Use, or Disposal of Hazardous Materials,* would be mandatory and would ensure that potential impacts related to spills, leaks, or improper disposal of hazardous materials handled during operation of the Project would be ***less than significant***.

Subsurface Contamination

As discussed under *Environmental Setting,* above, methane and VOCs have been detected in soil vapor at the Project site, at concentrations exceeding applicable screening levels for human health. The sources and extent of the methane and VOCs in soil vapor beneath the Project site have not been identified. Based on the past manufacturing activities at the Project site, which involved the storage and use of hazardous materials, including VOCs, it is possible that there are onsite source areas of subsurface contamination that have not been identified.

The 2022 Phase I ESA recommended that additional soil vapor sampling be performed once the locations for planned site uses and building layouts/designs are finalized to determine if vapor mitigation measures will be required, an SMP and Health and Safety Plan be prepared, and regulatory oversight review of the SMP be considered. If the Project should require imported soil for grading, the 2022 Phase I ESA also recommended documenting the source and quality of the soil.[29]

Construction

The disturbance of contaminated soil or groundwater, if encountered, during construction activities could result in impacts on construction workers, the public, and the environment because dust or vapors containing hazardous materials could be released into the environment, and the movement of contaminated soil could spread contamination to new areas. Construction in areas with elevated levels of methane could also create hazards related to fire and explosion due to potential methane accumulation within excavations or enclosed spaces. Therefore, the potential release of subsurface hazardous materials into the environment during construction of the Project is a ***significant*** impact.

[29] Cornerstone Earth Group. 2022. *Phase I Environmental Site Assessment, 49-Acre Old Ironsides Drive, Tasman Drive, Democracy Way, and Patrick Henry Drive Parcels, Santa Clara, California*. July 25.

Operation

If landscaping (particularly stormwater treatment/infiltration features) would be installed over areas of contaminated soil or groundwater not excavated as part of the Project, stormwater infiltration during operation of the Project could increase the leaching of contaminants from soil into groundwater or the migration of contaminated groundwater. The placement of buildings and utilities in areas with elevated methane and VOC levels in soil vapor could create hazards related to fire and explosion due to potential methane accumulation within enclosed spaces and create health hazards for future occupants of the Project site due to vapor intrusion to indoor air. Therefore, the potential release of subsurface hazardous materials into the environment during operation of the Project is a ***significant*** impact.

As indicated in the 2022 Phase I ESA,[30] the need for vapor intrusion mitigation on the Project site would depend on building locations, intended uses, building designs, and the methane and VOC concentrations present in soil vapor. In areas where a subsurface parking garage would be present beneath the entire footprint of a building, vapor intrusion mitigation may not be necessary to protect indoor air quality in the overlying building because of ventilation within the subsurface parking structure and/or the more extensive excavation to accommodate construction of the below-grade structure.

MITIGATION MEASURE. Implementation of Mitigation Measure HAZ-2.1 would ensure that the significant impacts would be reduced to ***less than significant with mitigation*** by ensuring that subsurface contamination would be further investigated and appropriately managed under the oversight of a regulatory agency.

HAZ-2.1: Subsurface Contamination. The Project Sponsor shall engage with an appropriate regulatory agency (e.g., the San Francisco Bay Regional Water Board, Santa Clara County DEH, DTSC) to provide oversight for additional subsurface investigation at the Project site, prepare and implement a Soil and Groundwater Management Plan (SGMP), and implement remedial actions, as necessary and required by the appropriate regulatory agency. When site uses and building layouts/designs are finalized and available, additional soil vapor testing shall be performed to evaluate the need for vapor intrusion mitigation measures. The additional subsurface investigation activities shall include, to the extent required by the appropriate regulatory agency, investigation of potential contamination source areas/features of environmental concern (e.g., former hazardous materials storage areas, clarifiers/sumps/vaults and associated piping, possible UST areas) to define the extent of subsurface contamination at the Project site. The SGMP shall outline the soil and groundwater management protocols that would be implemented during redevelopment of the Project site to ensure that construction workers, the public, future occupants, and the environment would not be exposed to hazardous materials that may be present in the subsurface of the Project site. The SGMP shall include, at a minimum, the following procedures, to be implemented during construction:

- Health and safety requirements for construction workers who may handle contaminated soil or groundwater
- Guidelines for controlling airborne dust, vapors, and odors
- Air monitoring requirements for methane and VOCs during construction
- Guidelines for controlling hot work (e.g., welding) in areas where methane concentrations approach or exceed 10 percent of the lower explosive limit (i.e., 0.5 percent)

[30] Cornerstone Earth Group. 2022. *Phase I Environmental Site Assessment, 49-Acre Old Ironsides Drive, Tasman Drive, Democracy Way, and Patrick Henry Drive Parcels, Santa Clara, California*. July 25.

- Regulatory notification requirements if undocumented contamination, features of environmental concern (e.g., USTs or clarifiers/sumps/vaults and associated piping), or elevated methane levels are encountered, which shall include notification of the City's Community Risk Reduction Division for USTs and the fire department for hot work in methane areas
- Inspection and sampling protocols for contaminated soil or groundwater by a qualified environmental professional
- Guidelines for groundwater dewatering, treatment, and disposal to ensure compliance with applicable regulations/permit requirements
- Guidelines for the segregation of contaminated soil, stockpile management, characterization of soil for offsite disposal or onsite re-use, and importing of clean fill material

The SGMP shall be submitted to applicable regulatory oversight agencies, including the City, for review and approval prior to the City issuing demolition or grading permits for the Project. Remedial actions that may be required for the Project could include, but would not necessarily be limited to, removal of hazardous material containers/features (e.g., USTs, piping, clarifiers/sumps/vaults), removal and offsite disposal of contaminated soil or groundwater, in-situ treatment of contaminated soil or groundwater, or implementation of engineering/institutional controls (e.g., capping of contaminated soils, installation of vapor intrusion mitigation systems, establishment of deed restrictions).

If remedial actions are required for any portion of the Project site, the Project Sponsor shall submit to the City evidence of approvals from all applicable regulatory oversight agencies for any proposed remedial action plans prior to the City issuing any demolition, grading, or building permits for that portion of the Project site. The Project Sponsor shall submit to the City evidence of approval(s) from all applicable regulatory oversight agencies for the completion of remedial actions on the applicable portion of the Project site prior to the City issuing a certificate of occupancy for any buildings located on said portion of the Project site.

Impact HAZ-5: Aviation Hazards. The Project would not result in a safety hazard or excessive noise for people residing or working in the Project area due to proximity to San José International Airport. (Less than Significant)

As discussed under *Environmental Setting,* above, the Project site is adjacent to but outside of the AIA for San José International Airport (see Figure 3.1-3 in Section 3.1, *Land Use*). The Project site is approximately 1 mile northwest of the nearest Airport Safety Zone of San José International Airport but not within areas that are exposed to aircraft noise (i.e., above 65 decibels) (see Figure 3.1-4 in Section 3.1, *Land Use*). The Project site is in an area where maximum building heights, based on FAR Part 77, range from approximately 350 feet MSL in the southeast portion of the Project site to approximately 380 feet MSL in the northwest portion of the Project site, as identified in the CLUP for San José International Airport (see Figure 3.1-5 in Section 3.1, *Land Use*).[31]

[31] Windus, Walter B. 2011. *Comprehensive Land Use Plan for San José International Airport*. Santa Clara County Airport Land Use Commission. Adopted: May 25, 2011. Amended: November 16, 2016.

Construction

Construction of the Project would include utility work within Old Ironsides Drive, which is within the AIA of San José International Airport; however, utility work would not create aviation hazards because it would not involve tall structures or other potential aviation hazards (e.g., reflective surfaces or lighting). The tallest buildings proposed for the Project would have a height of up to 202 feet. The ground surface elevation of the Project site is 10 to 18 feet NAVD 88,[32] and the MSL elevation in the vicinity of the Project site is approximately 3.4 feet NAVD 88;[33] therefore, the proposed buildings on the Project site could reach an elevation of approximately 217 feet MSL, which is well below the maximum building heights for the Project site, based on FAR Part 77, of approximately 350 to 380 feet MSL (see Figure 3.1-5 in Section 3.1, *Land Use*).[34] The heights of the cranes that would be used during construction are unknown at this time but would be well below the maximum building heights for the Project site (350 to 380 feet MSL), based on FAR Part 77.

Structures in any location that exceed 200 feet above the ground level, including construction cranes, would require FAA notification for construction or alteration. Compliance with FAR Part 77 and the CLUP for San José International Airport would ensure that the Project would not create aviation hazards. Therefore, potential construction impacts of the Project related to aviation hazards would be ***less than significant.***

Operation

As discussed above, the proposed buildings on the Project site could reach an elevation of approximately 217 feet MSL, which is well below the maximum allowable building height for the Project site, based on FAR Part 77, of approximately 350 to 380 feet MSL. Compliance with FAR Part 77 and the CLUP for San José International Airport would ensure that the Project would be reviewed by the FAA, and that any recommendations from the FAA for alteration of the Project's designs, markings, or lighting would be implemented to ensure that operation of the Project would not create aviation hazards. Therefore, potential operational impacts of the Project related to aviation hazards would be ***less than significant***.

Impact HAZ-6: Emergency Response and Evacuation. The Project would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. (Less than Significant)

Construction

The Project could require temporary closure of traffic lanes during construction activities (e.g., for utility work). This could impede implementation of emergency response and evacuation activities; however, any construction activities that would result in temporary roadway closures would require traffic permits from the City and a traffic control plan, which would maintain emergency response and evacuation access through appropriate traffic control measures and detours.

[32] BKF. 2018. *3005 Democracy Way, Existing Site Boundary and Easement Plan*. July 25.

[33] AECOM. 2016. *San Francisco Bay Tidal Datums and Extreme Tides Study, Final Report*. February.

[34] A previous version of the Project from 2018 included much taller buildings that conflicted with FAA height limits. This previous version of the Project was the subject of the NOP comment discussed at the beginning of this chapter regarding building height. The Project was redesigned to its current form with reduced building heights that are below FAA limits.

Based on the above considerations, adequate emergency access would be maintained at the Project site, and potential impacts related to impairing or interfering with emergency response or evacuation plans during construction would be ***less than significant***.

Operation

As discussed under *Regulatory Setting,* above, the City has developed an EOP that includes a Local Hazard Mitigation Plan, which was prepared in conjunction with the County Hazard Mitigation Plan. The EOP and Local Hazard Mitigation Plan describe actions to be taken by the City to prepare for and respond to emergencies. The Project would result in an increase in population within the City, which would result in an increase in the demand for emergency response resources and services; however, the Project would not impair or interfere with the City's ability to implement the emergency preparation or response actions described in the Local Hazard Mitigation Plan or EOP. The Project would be built to adhere to all safety requirements required by the City and would not interfere with emergency response actions. See also Chapter 3.13, *Public Services and Recreation*.

Implementation of City General Plan policies related to emergency response and evacuation, including Policies 5.10.5-P1 through 5.10.5-P4, as described under *Regulatory Setting,* above, would ensure that the City would maintain an effective emergency response program that would account for development of the Project.

Based on the above considerations, potential impacts related to impairing or interfering with emergency response or evacuation plans during operation would be ***less than significant***.

Cumulative Impacts

This section evaluates cumulative impacts related to hazards and hazardous materials. This cumulative analysis examines the effects of the Project in the relevant geographic area in combination with other current projects and probable future projects. Cumulative impacts are addressed only for those thresholds that would result in a Project-related impact, whether it be less than significant or less than significant with mitigation. The Project would result in no impacts with respect to hazardous emissions within 0.25 mile of schools (HAZ-3), Government Code Section 65962.5 (HAZ-4), or wildfire (HAZ-7), as discussed above. Similarly, the Project would result in no cumulative impacts related hazardous emissions within 0.25 mile of schools, Government Code Section 65962.5, or wildfire.

An occurrence of a cumulative effect related to hazardous materials would require multiple projects to release hazardous materials at the same time and near each other; therefore, the geographic area of concern for cumulative hazardous materials impacts is the Project site and the nearest cumulative projects, which are the Patrick Henry Specific Plan, 2901 Tasman Drive, 3001 Tasman Drive, and 4949 Great American Parkway, which are described in Table 3-1 in Chapter 3 of this EIR. An occurrence of a cumulative effect related to aviation hazards would require multiple projects to create aviation hazards that could affect the same airport; therefore, the geographic area of concern for cumulative aviation hazards impacts is the cumulative projects located partially or entirely within the AIA for San José International Airport, which includes all of the cumulative projects described in Table 3-1 in Chapter 3 of this EIR, except for the 3001 Tasman Drive and 3905 Freedom Circle projects. Cumulative impacts on emergency response/evacuation can occur when an increase in vehicular traffic occurs in an area with limited vehicular access; therefore, the geographic area of concern for cumulative emergency response/evacuation impacts is the roadway network surrounding the Project site, which could be

affected by vehicular traffic from all of the cumulative projects described in Table 3-1 in Chapter 3 of this EIR.

Impact C-HAZ-1: Cumulative Routine Transport, Use, or Disposal of Hazardous Materials. The Project, in combination with other foreseeable development in the vicinity, 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)

Construction

Hazardous materials (e.g., fuel, oils, paints) would be routinely transported, stored, and used at cumulative projects and at the Project site during construction activities. Required compliance with existing hazardous materials regulations, including OSHA and Cal/OSHA regulations; the California Fire Code; California Health and Safety Code Division 20, Chapter 6.5, Chapter 6.67, Chapter 6.7, and Chapter 6.95; CCR; DOT; RCRA; and federal, State, regional, and local regulations, would ensure that the Project and cumulative projects, during periods of concurrent construction, would not create a significant hazard to the public or the environment associated with the routine transport, use, or disposal of hazardous materials. Such materials would be handled in accordance with regulatory requirements during construction. Therefore, the Project would not result in cumulatively considerable impact related to the routine transport, use, or disposal of hazardous materials. This impact would be ***less than significant***, and no mitigation would be necessary.

Operation

Operation of cumulative projects and the Project could also involve the routine storage, use, and disposal of hazardous materials. Required compliance with existing hazardous materials regulations, including OSHA and Cal/OSHA regulations; the California Fire Code; California Health and Safety Code Division 20, Chapter 6.5, Chapter 6.67, Chapter 6.7, and Chapter 6.95; CCR; DOT; RCRA; and federal, State, regional, and local regulations, would ensure that the Project and cumulative projects, when operational, would not create a significant hazard to the public or the environment associated with the routine transport, use, or disposal of hazardous materials. Such materials would be handled in accordance with regulatory requirements during operation. Therefore, the Project would not result in cumulatively considerable impact related to the routine transport, use, or disposal of hazardous materials. This impact would be ***less than significant***, and no mitigation would be necessary.

Impact C-HAZ-2: Cumulative Accidental Releases of Hazardous Materials. With implementation of mitigation, the Project, in combination with other foreseeable development in the vicinity, 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 with Mitigation)

Construction

Cumulative projects may include the demolition of buildings that contain hazardous building materials. As discussed under *Environmental Setting,* above, hazardous building materials, including ACMs, lead-containing paint, mercury-containing fluorescent light tubes, high-intensity discharge lamps, and refrigerants, have been identified in the existing buildings on the Project site. Compliance with the existing regulations discussed under *Impact HAZ-2*, above, would ensure that potential impacts of the Project and cumulative projects related to the accidental release of hazardous building materials into the environment

would be less than significant. Therefore, the Project would not result in cumulatively considerable impact related to the accidental release of hazardous building materials into the environment.

Compliance with existing regulations regarding the management, transport, and disposal of hazardous materials would ensure that potential impacts related to spills, leaks, or improper disposal of hazardous materials handled during construction of the Project as well as cumulative projects would be less than significant. Therefore, the Project would not result in a cumulatively considerable impact related to spills, leaks, or improper disposal of hazardous materials during construction.

Cumulative projects may involve redevelopment in areas with subsurface contamination. A review of the State Water Board's GeoTracker database[35] and DTSC's EnviroStor database[36] indicates that there is one property, with respect to the cumulative projects nearest to the Project site, with known subsurface hazardous materials contamination. This property is at 3000 Patrick Henry Way, which is within the Patrick Henry Specific Plan area south of the Project site; VOC contamination has been identified in soil vapor beneath this property. A subsurface investigation for this property indicates that the likely source for the soil vapor detections may be the migration of contamination from neighboring properties through storm drains or sewer lines.[37] Given the past and current commercial/industrial land uses near the Project site that may have involved the storage and use of hazardous materials, it is possible that previously unidentified subsurface contamination could be present at other cumulative projects near the Project site. As discussed under *Environmental Setting,* above, elevated levels of methane and VOCs have been identified in soil vapor at the Project site. As discussed under *Impact HAZ-2,* above, based on the past manufacturing activities at the Project site, which involved the storage and use of hazardous materials, including VOCs, and the presence of VOCs in soil vapor at the Project site, it is possible that there are onsite source areas of subsurface contamination that have not been identified. Redevelopment of multiple projects in areas of subsurface contamination at the same time could result in cumulative exposure of construction workers, the public, and the environment to hazardous materials, which would be a significant cumulative impact. Implementation of General Plan policies, including Policies 5.10.5-P22 and 5.10.5-P23, would ensure that the City would regulate development on sites with suspected contamination of soil and/or groundwater and require appropriate cleanup and remediation of contaminated sites, ensuring that construction workers, the public, future occupants, and the environment would be adequately protected from hazards associated with contamination. Implementation of Mitigation Measure HAZ-2.1 would ensure that potential impacts of the Project associated with accidental releases of hazardous materials due to subsurface contamination would not be cumulatively considerable. This impact would be ***less than significant with mitigation***.

Operation

Operation of cumulative projects and the Project could involve the storage, use, and disposal of hazardous materials. Required compliance with existing hazardous materials regulations, including OSHA and Cal/OSHA regulations; the California Fire Code; California Health and Safety Code Division 20, Chapter 6.5, Chapter 6.67, Chapter 6.7, and Chapter 6.95; CCR; DOT; RCRA; and federal, State, regional, and local regulations, would ensure that the Project and cumulative projects, when operational, would not create a significant hazard to the public or the environment associated with an accidental release of hazardous

[35] State Water Resources Control Board. 2023. *GeoTracker.* Available: https://geotracker.waterboards.ca.gov/. Accessed: June 6, 2023.

[36] Department of Toxic Substances Control. 2023. *EnviroStor*. Available: https://www.envirostor.dtsc.ca.gov/public/. Accessed: June 6, 2023.

[37] Roux Associates, Inc. 2022. *Additional Subsurface Environmental Investigation, 3000 Patrick Henry Drive, Santa Clara, California.* August 30.

materials. Such materials would be properly handled during operation. Therefore, the Project would not result in cumulatively considerable impact related to the accidental release of hazardous materials during operation. This impact would be ***less than significant***, and no mitigation would be necessary.

Impact C-HAZ-3: Cumulative Aviation Hazards. The Project in combination with other foreseeable development in the vicinity would not result in a safety hazard or excessive noise for people residing or working in the Project area due to proximity to San José International Airport. (Less than Significant)

Construction

Construction of cumulative projects would be required to comply with FAR Part 77 and the CLUP for San José International Airport, ensuring that they would not create aviation hazards. As discussed under *Impact HAZ-3,* above, compliance with FAR Part 77 and the CLUP for San José International Airport would ensure that construction of the Project would be reviewed by the FAA and that any recommendations from the FAA for the alteration of the Project's designs, markings, or lighting would be implemented. Similarly, the cumulative projects would also be reviewed and required to comply with CLUP, FAA, and ALUC recommendations such that significant impacts would not result. These procedures and reviews would ensure that the Project and cumulative projects taken together would not create aviation hazards. Therefore, potential construction impacts of the Project associated with aviation hazards would not be cumulatively considerable. This impact would be ***less than significant***, and no mitigation would be necessary.

Operation

Operation of cumulative projects would be required to comply with FAR Part 77 and the CLUP for San José International Airport, ensuring that they would not create aviation hazards. As discussed under *Impact HAZ-3,* above, compliance with FAR Part 77 and the CLUP for San José International Airport would ensure that operation of the Project would be reviewed by the FAA and that any recommendations from the FAA for the alteration of the Project's designs, markings, or lighting would be implemented. Similarly, the cumulative projects would also be reviewed and required to comply with CLUP, FAA, and ALUC recommendations such that significant impacts would not result. These procedures and reviews would ensure that the Project and cumulative projects taken together would not create aviation hazards. Therefore, potential operational impacts of the Project associated with aviation hazards would not be cumulatively considerable. This impact would be ***less than significant***, and no mitigation would be necessary.

Impact C-HAZ-4: Cumulative Emergency Response and Evacuation. The Project in combination with other foreseeable development in the vicinity would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. (Less than Significant)

Construction

The Project and cumulative projects could require temporary closure of traffic lanes during construction activities (e.g., for utility work). This could impede implementation of emergency response and evacuation activities; however, any construction activities that would result in temporary roadway closures would require traffic permits from the City and a traffic control plan, which would maintain emergency response and evacuation access through appropriate traffic control measures and detours. Based on the above considerations, adequate emergency access would be maintained during construction at the Project site and the sites for cumulative projects. Potential construction impacts of the Project related to impairing or

interfering with the emergency response or evacuation plans would not be cumulatively considerable. This impact would be ***less than significant***, and no mitigation would be necessary.

Operation

As discussed under *Impact HAZ-6,* above, the City's EOP and Local Hazard Mitigation Plan describe actions to be taken by the City to prepare for and respond to emergencies. Operation of cumulative projects and the Project would result in an increase in population within the City, which would result in an increase in the demand for emergency response resources and services; however, the Project and cumulative projects would not impair or interfere with the City's ability to implement the emergency preparation or response actions described in the Local Hazard Mitigation Plan or EOP. Implementation of the City's General Plan policies related to emergency response and evacuation, including Policies 5.10.5-P1 through 5.10.5-P4, as described under *Regulatory Setting,* above, would ensure that the City would maintain an effective emergency response program that would account for operation of the Project and cumulative projects.

Based on the above considerations, potential operational impacts of the Project related to impairing or interfering with the emergency response or evacuation plans would not be cumulatively considerable. This impact would be ***less than significant***, and no mitigation would be necessary.

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3.12 Population and Housing

This section describes existing and projected population, employment, and housing conditions in the city of Santa Clara and estimates changes to the city's demographics that could result from the Mission Point Project (Project). The analysis is based on population, employment, and housing data published in Projections 2040[1] by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC)[2] as well as other demographic information from the Demographic Research Unit of the California Department of Finance (DOF) and the U.S. Census Bureau. In addition, relevant data and policies of the 2023–2031 Housing Element are considered in this analysis. Projections 2040 is the most recent of ABAG's statistical compendia on demographic, economic, and land use changes in each local Bay Area jurisdiction through 2040. As such, the data from Projections 2040 are used in this analysis.

The purpose of this section is to characterize the potential for Project-induced population, housing, and employment changes that may trigger physical environmental effects; these potential environmental impacts are examined in other sections of this Draft Environmental Impact Report (Draft EIR) (e.g., Sections 3.2, *Transportation*; 3.3, *Air Quality*; 3.6, *Noise*; 3.13, *Public Services*; and 3.15, *Utilities and Service Systems,* and Chapter 4, *Other CEQA Considerations*).

Comments related to population and housing were received in response to the Notice of Preparation (NOP) (Appendix 1). The NOP comments pertained to potential impacts on the Adobe Well Mobile Home Park and questions about how much affordable housing would be included in the Project and at what income levels. These topics are discussed in the sections below.

Existing Conditions

Regulatory Setting

State

Sustainable Communities Strategy and SB 375

Senate Bill (SB) 375, adopted in 2008, requires preparation of a Sustainable Communities Strategy (SCS) as part of the Regional Transportation Plan (RTP) for the Bay Area. Plan Bay Area, the SCS for the region, and the 2050 RTP were jointly approved in October 2021 by ABAG and MTC. The plan represents a transportation and land use/housing strategy for how the Bay Area will address its transportation mobility and accessibility needs, land development, and greenhouse gas emissions reduction requirements through 2050. In addition to land use and housing planning, Plan Bay Area also forecasts changes to the Bay Area population, including projected household and job growth. Although the regional, county, and sub-county level growth patterns and projections for households and jobs are available for

[1] As discussed in Section 3.1, *Land Use and Planning*, although regional, county, and sub-county growth patterns and projections for households and jobs are available for Plan Bay Area 2050, city-level growth projections are not yet available. Therefore, for purposes of this analysis, the 2040 projections from Plan Bay Area 2040 were used.

[2] MTC is the government agency responsible for regional transportation planning and financing as well as coordinating transportation services in the nine-county San Francisco Bay Area.

Plan Bay Area 2050, the city-level growth projections are not yet available.[3] It is unlikely that pre-pandemic (2019) or pandemic (2020-2021) trends will return in the near term as the region recovers. However, due to ongoing economic uncertainties, the full extent of the pandemic's effects on the workplace and population forecasts will likely take years to unfold and understand.[4] Therefore, for these reasons, and for the purposes of this analysis, Plan Bay Area 2040 is referenced as the regional plan containing regional population, housing, and employment projections.

In the Bay Area, the SCS and the Regional Housing Needs Allocation (RHNA) methodology are mutually reinforcing. They were developed together to meet the overlapping objectives of SB 375 and Housing Element law. These objectives include increasing the supply, diversity, and affordability of housing; promoting infill development and a more efficient land use pattern; promoting an improved intraregional relationship between jobs and housing; protecting environmental resources; and promoting socioeconomic equity.[5] SB 375 requires the RHNA to be consistent with the SCS and establishes an 8-year cycle for the RHNA. The 2023–2031 RHNA for the San Francisco Bay Area, which is discussed in more detail below, was adopted on December 16, 2021.[6]

Current planning assumptions envision that the Project site will operate as a future corporate campus development through 2035, consistent with the City of Santa Clara 2010–2035 General Plan (General Plan). As discussed in Section 3.1, *Land Use and Planning*, the Project's 3 million gross square feet (gsf) of office/research-and-development (R&D) space was accounted for in the General Plan and, thus, was factored into Plan Bay Area 2040. However, the proposed 100,000 gsf of neighborhood retail and 10,000 gsf of childcare space, as well as up to 1,800 new multifamily residential units, were not accounted for in the General Plan or Plan Bay Area 2040.

Housing Element Law

The RHNA is a process established under State Housing Element law that requires cities in California to plan for future development of new housing units to meet their share of regional housing needs. Housing needs for each region in the state are determined by the California Department of Housing and Community Development (HCD) and submitted to councils of government for allocation to local jurisdictions. ABAG is ultimately responsible for determining the share of the regional housing need to be met by each city in the San Francisco Bay Area.

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3 Association of Bay Area Governments. 2021a*. Plan Bay Area 2050 Growth Patterns*. Available: https://www.planbayarea.org/digital-library/plan-bay-area-2050-final-blueprint-growth-pattern. Accessed: September 1, 2023.

4 Association of Bay Area Governments, Metropolitan Transportation Commission. 2021*. Plan Bay Area 2050*. Available: https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf. Accessed: February 2, 2023.

5 Association of Bay Area Governments, Metropolitan Transportation Commission. 2013. Regional Housing Need Plan: San Francisco Bay Area2015-2023. Available: https://abag.ca.gov/sites/default/files/2015-23_rhna_plan.pdf. Accessed: August 24, 2023.

6 Association of Bay Area Governments. 2021b. *Final Regional Housing Needs Allocation Plan: San Francisco Bay Area, 2023–2031*. Adopted: December 16, 2021. Available: https://abag.ca.gov/sites/default/files/documents/2021-12/Final_RHNA_Allocation_Report_2023-2031-approved_0.pdf. Accessed: August 24, 2023.

State housing law has established three housing affordability categories. The categories are based on the region's median income and take into account household size, which ranges from one to six people. These three affordability categories are used by ABAG in allocating regional housing needs.

- Very Low: 0 to 50 percent of the area's median income
- Low: 50 to 80 percent of the area's median income
- Moderate: 80 to 120 percent of the area's median income

The current RHNA allocated housing units for the 2023 to 2031 period (Table 3.12-1). ABAG determined that 11,632 units (defined by income category) is the city's fair share of the regional housing need (Table 3.12-1).[7] As discussed above, the Project's projected office/R&D-related jobs (and 3 million gsf of office/R&D space), for land use consistency planning purposes, were taken into account when the current RHNA allocations were made.

Table 3.12-1. Regional Housing Need Allocation for 2023–2031 (Units)

Income Level	City Need	County Need	Regional Need
Very Low	2,872	32,316	114,422
Low	1,653	18,607	65,892
Moderate	1,981	21,926	72,712
Subtotal of Affordable Units	*6,506*	*72,849*	*253,026*
Above Moderate[a]	5,126	56,728	188,130
Total	**11,632**	**129,577**	**441,176**

Source*:* Association of Bay Area Government. 2021. *Final Regional Housing Needs Allocation Plan: San Francisco Bay Area, 2023–2031*. Adopted: December 16, 2021. Available: https://abag.ca.gov/sites/default/files/documents/2021-12/Final_RHNA_Allocation_Report_2023-2031-approved_0.pdf. Accessed: August 24, 2023.

Notes:

[a] Above Moderate: Households with incomes greater than 120 percent of the county median family income. ABAG does not use the Above Moderate category. This category is included in the RHNA and in the analysis below to provide decision-makers with more information on housing impacts from the broad spectrum of new worker households associated with the Project.

Local

City of Santa Clara 2010–2035 General Plan

All California cities and counties are required to have a Housing Element included in their general plan that establishes housing objectives, policies, and programs in response to community housing conditions and needs. The Housing Element also provides a framework for the community's longer-term approach to addressing its housing needs.[8] The following goals and policies from the Housing Element would be applicable to the Project.

[7] Ibid.

[8] City of Santa Clara. 2023. *City of Santa Clara 2023–2031 Draft Housing Element (Redline Version Adopted Housing Element)*. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan/is housing-element-update. Accessed: June 16, 2023.

- **Goal B.** Manage growth in the city by designating suitable vacant or underutilized sites for new residential development and ensuring compatibility with community goals and existing neighborhoods.
  - *Policy B-1*. Disperse affordable housing units throughout the city to avoid a concentration in any one neighborhood.
  - *Policy B-2*. Encourage the building of higher-density housing on appropriate vacant or underutilized sites.
  - *Policy B-3.* Encourage the annual construction of the number of housing units necessary to meet the city's regional housing needs determination through housing finance and reducing development constraints.
  - *Policy B-4.* Promote compatibility between neighborhoods while respecting differences in neighborhood character.
  - *Policy B-5*. Work toward the mitigation of jobs/housing ratio impacts created by developments with significant employment.
  - *Policy B-6*. Encourage higher-density residential development in transit-oriented and mixed-use areas where appropriate.
  - *Policy B-7*. Encourage a mix of unit types and sizes in new housing development.

Environmental Setting

Population

The city, located in the northwestern portion of Santa Clara County, encompasses approximately 18.4 square miles. The California Department of Finance estimated the city's population to be approximately 130,127 as of January 2022.[9] Table 3.12-2 presents ABAG population estimates and projections for 2025 through 2040 for the city, county, and the Bay Area (Marin, Sonoma, Napa, Solano, Contra Costa, Alameda, Santa Clara, San Mateo, and San Francisco Counties).

Table 3.12-2. Population Trends in the City, County, and Bay Area, 2025–2040 (Total Number of Persons)

	2025	2030	2035	2040	Growth 2025–2040
City	137,215	142,425	151,715	159,500	22,285 (16.2%)
County	2,098,695	2,217,750	2,387,165	2,538,320	439,625 (20.9%)
Bay Area	8,284,200	8,689,400	9,142,745	9,652,950	1,368,750 (16.5%)

Source: Association of Bay Area Governments. 2019. *Projections 2040*. May. Available: http://projections.planbayarea.org/#download. Accessed: November 13, 2022.

The data indicate that the population growth from 2025 to 2040 in the city (approximately 16.2 percent) and in the Bay Area as a whole (about 16.5 percent) would be slightly less than population growth in the county (approximately 20.9 percent).[10]

[9] California Department of Finance. 2022. *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020–2022*. Available: https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2022/. Accessed: October 28, 2022.

[10] Growth rates = (population in 2040 – population in 2025)/population in 2025 × 100

Housing

The U.S. Census Bureau defines *household* as a person or group of persons living in a housing unit, as opposed to persons living in group quarters such as dormitories, convalescent homes, or prisons. The estimated number of households in the city was approximately 52,000, with an average household size of about 2.61 persons per household.[11] The city had a housing unit vacancy rate of approximately 6.9 percent in January 2022.[12] The county's worker-per-household ratio was about 1.56.[13,14,15]

Table 3.12-3 presents ABAG projections for households in the Bay Area, the county, and the city for 2025 through 2040. According to ABAG, the number of households in the county is projected to grow from approximately 718,565 units in 2025 to approximately 860,810 in 2040, an increase of approximately 19.8 percent. The number of households in the city is projected to grow from approximately 50,465 units in 2025 to about 57,010 in 2040, an increase of approximately 12.9 percent. Overall, the household growth rate in the city (approximately 12.9 percent) is expected to be below the rate for the county (approximately 19.8 percent) as well as the Bay Area (approximately 13.9 percent). The Project's proposed 1,800 multifamily residential units have not been included in the City of Santa Clara's Housing Element, and the site is not a housing opportunity site.

Table 3.12-3. Household Trends in the City, County, and the Bay Area, 2015–2040 (Total Number of Households)

	2025	2030	2035	2040	Growth (2025–2040)
City	50,465	52,110	54,855	57,010	6,545 (12.9%)
County	718,565	757,690	815,980	860,810	142,245 (19.8%)
Bay Area	3,009,055	3,142,015	3,281,130	3,426,700	417,654 (13.9%)

Source: Association of Bay Area Governments. 2019. *Projections 2040*. May. Available: http://projections.planbayarea.org/#download. Accessed: November 13, 2022.

Employment

An employment profile provides an indication of the composition of an area's economy and the present and future demand for employees. Approximately 70.1 percent of the city's residents age 16 and older

[11] California Department of Finance. 2022. *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020–2022*. Available: https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2022/. Accessed: October 28, 2022.

[12] California Department of Finance. 2020. *Census Redistricting Profile*. Demographic Research Unit. Available: https://dof.ca.gov/wp-content/uploads/Forecasting/Demographics/Documents/2020Census_PL942020_Profile_Calif_Santa-Clara.pdf. Accessed: November 14, 2022.

[13] The Santa Clara County average of 1.56 workers per worker household is used in this analysis because new workers would be more similar to the county as a whole than the smaller city of Santa Clara profile.

[14] U.S. Census Bureau. 2022. *2017–2021 American Community Survey, 5-Year Estimates*. Selected Characteristics of the Native and Foreign-Born Populations. ID S0501. Available: https://data.census.gov/table?q=S0501:+SELECTED+CHARACTERISTICS+OF+THE+NATIVE+AND+FOREIGN-BORN+POPULATIONS&g=0500000US06085&tid=ACSST5Y2021.S0501. Accessed: February 2, 2023.

[15] Santa Clara County has 1,558,810 residents over 16 and 1,007,768 employed residents over 16. There are 646,847 households in Santa Clara County. The worker-per-household ratio for Santa Clara County is therefore 1.56 (1,007,768/646,847 = 1.56).

were in the work force in 2020,[16] which is slightly higher than the county rate (approximately 67.6 percent)[17] and around 6 percent higher than the state rate (approximately 63.3 percent).[18] Most city residents who are in the workforce are employed in professional, scientific, management, administrative, and waste management services (24.8 percent), followed by educational services, health care, social assistance (18.9 percent), and manufacturing (18.1 percent).[19]

The city's top employers are high-tech manufacturing companies. The city's four largest employers are Applied Materials (22.8 percent), Intel (20.9 percent), Advanced Micro Devices (8.0 percent), and California's Great America Amusement Park (6.7 percent).[20] Steady employment growth is expected between 2025 and 2040.

The following tables present ABAG's employment projections. The U.S. Census Bureau estimates that there were an average of 103,326 jobs in the city between 2017 to 2021, not including workers who telecommuted.[21] However, because the U.S. Census Bureau does not provide projections, Table 3.12-4 presents only ABAG employment projections for the city, the county, and the Bay Area.

Table 3.12-4. Employment Trends in the City, County, and the Bay Area, 2025–2040 (Total Number of Jobs)

	2025	2030	2035	2040	Growth (2015–2040)
City	151,310	165,255	169,590	170,575	19,265 (12.7%)
County	1,159,110	1,198,370	1,231,000	1,289,870	130,760 (11.3%)
Bay Area	4,267,760	4,405,125	4,548,565	4,698,375	430,615 (10.1%)

Source: Association of Bay Area Governments. 2019. *Projections 2040*. May. Available: http://projections.planbayarea.org/#download. Accessed: November 13, 2022.

As indicated in Table 3.12-4, ABAG projections from 2025 to 2040 show a steady increase in employment in the Bay Area and the county (about 10.1 percent and 11.3 percent, respectively). The city shows a slightly higher rate of employment growth (approximately 12.7 percent) compared with Bay Area and county projections. These three projections of increasing employment suggest a need for housing to serve a growing and diverse workforce, particularly in the city.

[16] U.S. Census Bureau. 2020. *QuickFacts: Santa Clara City, California: In Civilian Labor Force, Total, Percent of Population Age 16.* Available: https://www.census.gov/quickfacts/santaclaracitycalifornia. Accessed: November 1, 2022.

[17] U.S. Census Bureau. 2020a. *QuickFacts: Santa Clara County, California: In Civilian Labor Force, Total, Percent of Population Age 16*. Available: https://www.census.gov/quickfacts/santaclaracountycalifornia. Accessed: November 14, 2022.

[18] U.S. Census Bureau. 2020b. *QuickFacts: California: In Civilian Labor Force, Total, Percent of Population Age 16.* Available: https://www.census.gov/quickfacts/CA. Accessed: November 14, 2022

[19] U.S. Census Bureau. 2020c. *American Community Survey 5-Year Estimates, Data Profiles: Santa Clara City, California: Industry for the Civilian Employed Population 16 Years and Over*. Available: https://data.census.gov/cedsci/profile/Santa_Clara_city,_California?g=1600000US0669084. Accessed: November 15, 2022.

[20] City of Santa Clara. 2023. *City of Santa Clara 2023–2031 Draft Housing Element. (Redline Version Adopted Housing Element)*. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/ planning-division/general-plan/housing-element-update. Accessed: June 16, 2023.

[21] U.S. Census Bureau, 2022. 2017-2021 American Community Survey 5-Year Estimates. "Sex of Workers by Travel Time to Work for Workplace Geography, Santa Clara City, California." ID B08412. Available at: https://data.census.gov/table?q=B08412:+SEX+OF+WORKERS+BY+TRAVEL+TIME+TO+WORK+FOR+WORKPLACE+GEOGRAPHY&g=1600000US0669084&tid=ACSDT5Y2021.B08412. Accessed on February 1, 2023.

Table 3.12-5 compares the projected total number of jobs available in the city to the projected number of employed residents in the city. According to ABAG projections, the number of employed residents in the city would equal approximately 44.7 percent of the available jobs in the city in 2040. The jobs/housing ratio quantifies the relationship between the number of housing units required as a result of local jobs and the number of residential units available in the city. When the ratio reaches 1.0, a balance is struck between the supply of local housing and jobs. The jobs/housing ratio is determined by dividing the number of local jobs by the number of employed residents that can be housed in local housing. This is an environmental issue because proximity between jobs and housing strongly influences driving patterns, air quality, and other environmental factors. If the Project were to induce substantial population growth without adequate employment opportunities for future residents, a direct or indirect impact from growth inducement may result due, in part, to the environmental impacts related to long commutes.

Table 3.12-5. Comparison of Number of Jobs to Employed Residents in the City

	2025	2030	2035	2040
Jobs[a]	151,310	165,255	169,590	170,575
Employed Residents[a]	69,020	70,500	73,835	76,325
Employed Residents to Total Number of Jobs (%)	45.6	42.7	43.5	44.7

Source: Association of Bay Area Governments. 2019. *Projections 2040*. May. Available: http://projections.planbayarea.org/#download. Accessed: November 13, 2022.

a. Estimates of jobs and employed residents are based on the city's sphere of influence, which also includes unincorporated areas of Santa Clara County.

Santa Clara can be characterized as a "job rich" community where the number of jobs has well exceeded the number of housing units. This leads to greater demand for housing and, in turn, higher prices for both rental and owner-occupied houses. According to the City of Santa Clara's Housing Element, home prices are increasingly out of reach, even for moderate-income households.[22] Because Santa Clara's housing prices are high, many people who work in the city cannot afford to live there. Consequently, people who work in Santa Clara often commute long distances. However, due to flexible office work policies put in place during the COVID-19 pandemic, there has been an increase in telecommuting. As of 2021, approximately 12.4 percent of the people who currently work in the Santa Clara also live in Santa Clara, not including people who work from home.[23,24,25,26]

[22] City of Santa Clara. 2023. *City of Santa Clara 2023–2031 Draft Housing Element. (Redline Version Adopted Housing Element)*. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/ planning-division/general-plan/housing-element-update. Accessed: June 16, 2023.

[23] 24,925 employees who both live and work in Santa Clara – 12,076 employees who work from home = 12,849 Santa Clara residents who both live and work in the City. 12,849 Santa Clara residents who both live and work in the City / 103,326 employees in Santa Clara (excluding those who work from home) = 12.4 percent of Santa Clara residents who also work in the City.

[24] U.S. Census Bureau, 2022. 2017-2021 American Community Survey 5-Year Estimates. "Sex of Workers by Place of Work—Place Level, Santa Clara City, California." ID B08008. Available at: https://data.census.gov/table?q=B08008:+SEX+OF+WORKERS+BY+PLACE+OF+WORK--PLACE+LEVEL&g=1600000US0669084&tid=ACSDT5Y2021.B08008. Accessed on February 1, 2023.

[25] U.S. Census Bureau, 2022. 2017-2021 American Community Survey 5-Year Estimates. "Sex of Workers by Means of Transportation to Work, Santa Clara City, California." ID B08006. Available at: https://data.census.gov/table?q=B08006:+SEX+OF+WORKERS+BY+MEANS+OF+TRANSPORTATION+TO+WORK&g=1600000US0669084&tid=ACSDT5Y2021.B08006. Accessed on February 1, 2023.

[26] U.S. Census Bureau, 2022. 2017-2021 American Community Survey 5-Year Estimates. "Sex of Workers by Travel Time to Work for Workplace Geography, Santa Clara City, California." ID B08412. Available at:

The current uses at the Project site employ 20 people onsite, including Project Sponsor employees and security personnel as well as parking employees; therefore, demolition of the buildings and onsite features at the Project site could displace some security and parking personnel, although they could be transferred to other areas. As discussed in Section 3.1, *Land Use and Planning*, the General Plan and Plan Bay Area account for employment generation from the proposed 3 million gsf of office/R&D uses but not for the 100,000 gsf of neighborhood retail and 10,000 gsf of childcare uses and up to 1,800 new multifamily residential units.

Environmental Impacts

This section describes the impact analysis related to population and housing for the Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each significant impact discussion.

Thresholds of Significance

The Project would have a significant effect if it would result in any of the conditions listed below.

- 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) (POP-1 and C-POP-1)
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere (POP-2)

Methods for Analysis

This analysis considers whether substantial population and household growth would occur with implementation of the Project and whether this growth is within forecasts for the city and/or can be considered substantial with respect to remaining growth potential in the city. This section uses ABAG's projections to analyze the Project's impacts.

Secondary environmental impacts related to the jobs/housing balance, such as housing demand created by the Project in jurisdictions outside the city, are discussed and analyzed in Chapter 4, *Other CEQA Considerations*.

Topics Found to Have No Impact

Displacement of Existing People or Housing (POP-2). The Project would demolish four light industrial buildings at the Project site, three of which are currently vacant. The Project would not demolish any residential housing, including the nearby Adobe Well Mobile Home Park. Therefore, the Project would not displace residents. The Project would result in ***no impact*** related to the displacement of housing.

https://data.census.gov/table?q=B08412:+SEX+OF+WORKERS+BY+TRAVEL+TIME+TO+WORK+FOR+WORKPLACE+GEOGRAPHY&g=1600000US0669084&tid=ACSDT5Y2021.B08412. Accessed on February 1, 2023.

Impacts and Mitigation Measures

Impact POP-1: Population Growth. Implementation of the Project would not 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 of other infrastructure). (Less than Significant)

Construction

Construction of the Project, including the site preparation and building demolition phases, would temporarily increase construction employment in the city. The number of construction workers per day would vary, depending on the construction phase, with an average of approximately 400 workers onsite. Although construction would occur over an extended period of time, the demand for construction employment would very likely be met within the existing and future labor market in the city and the county. The size of the construction workforce would vary during the different stages of construction, but a substantial number of workers from outside the city or county would not be expected to relocate permanently. Therefore, the population within the city or county as a result of workers relocating is not anticipated to increase substantially during Project construction, resulting in a ***less-than-significant*** impact.

Operation

Total population growth generated by the Project would consist of (1) growth from the Project's proposed residential units, generating an onsite residential population, and (2) growth from the Project's proposed office buildings, retail establishments, and childcare facilities, generating an employment population. A portion of the employment population, in turn, would be expected to live within the city.

As shown in Table 3.12-6, and discussed in Section 3.1, *Land Use and Planning*, the Project would result in an onsite residential population of approximately 3,870 and a net increase in the number of employees (i.e., approximately 544) beyond the 6,667 contemplated in the current General Plan for the site. Approximately 20 employees currently work at the Project site. The breakdown of employees generated by proposed land use type is as follows: 6,667 employees for office/R&D uses, 491 employees for neighborhood-serving retail uses, 35 employees for childcare facilities, and 38 employees for multifamily residential units.[27]

Growth from Proposed Housing and Employment. As shown in Table 3.12-6, the Project would result in the construction of up to 1,800 residential units on the Project site, 15 percent of which would be affordable. This would generate approximately 3,870 new residents, based on a household generation rate of 2.15 residents per unit. The estimates rely on DOF data for average household size and the number of occupied housing units by type in Santa Clara and Public Use Microdata Sample (PUMS) data for Santa Clara County.[28,29] The proposed 1,800 units, as well as the 3,870 residents who would live in the units,

[27] Keyser Marston Associates. 2022. *Memorandum: Projected Population and Employment, Mission Point Project.* September 9, 2022.

[28] Ibid.

[29] The PUMS data identified the average number of residents per unit for Santa Clara County within five unit-type categories, with 2.14 residents per unit being the average. The DOF data identified the average number of persons per household in the city of Santa Clara across all unit types (i.e., 2.615 as of January 1, 2022). The DOF average was used as control total, and the household size from the PUMS data was adjusted upward by 0.56 percent. Therefore, the weighted average household size matched the DOF-reported average household size for the city, resulting in 2.15 residents per unit for multifamily buildings with five or more units.

were not included in ABAG projections. As discussed above and shown in Table 3.12-2, Santa Clara's population is expected to grow by approximately 22,285 (16.2 percent) between 2025 and 2040. Therefore, the Project would account for approximately 17.3 percent of the city's population growth over this 15-year period.

Table 3.12-6. Proposed Onsite Residents and Employees

Land Use	Gross Square Footage/Units	Generation Rate	Projected Residents/ Employees
Onsite Residents			
Multifamily Residential	1,800,000/1,800 units	2.15 persons/household	3,870 residents
Total Residential	*1,800,000/1,800 units*	—	*3,870 residents*
Employees			
Office	3,000,000 gsf	450 gsf/employee	6,667 employees
Neighborhood Retail	100,000 gsf	204 gsf/employee	491 employees
Childcare	10,000 gsf	286 gsf/employee	35 employees
Multifamily Residential	1,800 units	47 units/employee	38 employees
Total Project Employees	—	—	*7,231 employees*
Existing Onsite Employees[c]	—	—	20 employees
Total Net New Employees	**—**	**—**	***7,211 employees***
Total Employees Assumed under General Plan	*3,000,000 gsf of office*	*450 sf/employee*	*6,667 employees*
Total Net New Employees at Project Site Compared to General Plan	**—**	**—**	***544***

Source: Keyser Marston Associates 2022; City of Santa Clara. 2011. *City of Santa Clara Draft 2010–2035 General Plan: Integrated Final Environmental Impact Report.* January. Appendix 8.6.
gsf = gross square feet

The increase in employment would result in increased housing demand and an influx of new residents in the city and other jurisdictions in the region and may even result in increased housing demand outside the Bay Area.[30] The county's[31] workers-per-household ratio is 1.56. Using this ratio, the Project's total demand for housing units to support employment would amount to approximately 349 units.[32] Approximately 12.4 percent of the city's workers are also residents; this ratio was used to estimate the number of new workers who may seek housing in the city (43 units).[33] Using the city's average persons-per-household ratio of 2.15 and the Project's indirect housing demand for 43 units, the employment

[30] Some of the employees in cities within Silicon Valley, like Santa Clara, are long-distance commuters from areas outside the Bay Area, such as San Joaquin County, who take advantage of relatively lower housing prices in outlying areas and the relatively higher salaries and/or availability of jobs in Silicon Valley.

[31] The Santa Clara County average of 1.56 workers per worker household is used in this analysis because new workers would be more similar to the county as a whole than the smaller city of Santa Clara profile. Workers are expected to live throughout the Bay Area, but there would be a particular concentration in the county. Therefore, the county's workers-per-worker-household statistic is used in the calculations.

[32] 349 housing units = 544 employees/1.56 worker per household

[33] 43 housing units in the city = 0.124 × 349

opportunities associated with the Project could result in an increase in population in the city (i.e., approximately 93 new residents).[34]

Total Population Growth. The city had approximately 130,127 residents within its jurisdictional boundary in 2022. The population is projected to increase from 137,215 in 2025 to approximately 159,500 by 2040, according to the ABAG projections. This represents a 15-year population increase of approximately 22,285 (Table 3.12-2). The Project would result in approximately 3,870 new permanent residents living on the Project site and possibly an additional 93 city residents as a result of the proposed employment, as discussed above. Taking into consideration new residential uses and employment-based growth, the Project could result in up to approximately 3,963 new city residents.[35] The projected Project-induced population of up to 3,963 new city residents would represent approximately 17.8 percent of the anticipated population growth in the city in 2040.[36]

As shown in Table 3.12-3, ABAG estimates that, between 2025 and 2040, the number of households in the city could grow by approximately 6,545. As discussed above, 43 units would be needed in the city to support employment generated by the Project. The projected 43 units would represent approximately 0.7 percent of the total projected household growth in the city between 2025 and 2040.[37] However, this is a conservative scenario because some of the employees may choose to live in the 1,800 housing units at the Project site. In addition, the vacancy rate in the city, according to DOF, was approximately 6.9 percent in 2022, as noted above. This represents a total of approximately 3,466 vacant units in the city.[38] The estimated 43 housing units that would be needed to accommodate the estimated new households generated by the Project employees could be accommodated by the vacant units. If no vacant units were to become occupied by employees of the Project, which is unlikely, the 43 required units would still represent only 0.7 percent of the projected housing growth, as noted.

Although 0.7 percent of the total housing demand generated by Project employment would occur in the city, the remaining 306 units would have to be distributed throughout the region (and possibly outside the region).[39] According to ABAG estimates, household growth in the Bay Area is expected to increase, with approximately 417,654 additional households between 2025 and 2040. The housing demand resulting from the Project would represent approximately 0.07 percent of the regional growth during the 15-year period.[40]

The Project is an infill development within an already-developed area of the city, and the employment growth under the Project is largely accounted for in the General Plan as well as regional growth plans, such as ABAG projections. The Project would increase the supply of housing in the city by providing 1,800 new housing units. Although the Project would generate 544 employees beyond what was assumed for the site under the General Plan, the indirect regional housing demand generated by these additional employees would constitute approximately 0.07 percent of household growth expected in the Bay Area

[34] 93 indirect population increase = 43 housing units × 2.15 persons per household

[35] 3,963 (population growth in Santa Clara) = 3,870 people living onsite + 93 people expected to live in the city due to onsite employment

[36] 17.8 percent = 3,963 projected residents generated from Project/22,285 projected additional city residents from 2025 to 2040

[37] 0.7 percent = 43 projected units/6,545 ABAG-projected household growth in Santa Clara from 2025 to 2040

[38] 50,229 housing units (2020 decennial census) × 6.9 (vacancy rate)/100 = 3,466 vacant units

[39] 306 housing units generated by Project employment who would not live in the city = 349 housing units needed to support Project employment – 43 housing units in the city

[40] 0.07 percent = 306 households generated by Project who would not live in the city/417,654 household growth in the Bay Area from 2025 to 2040

between 2025 and 2040, which is minimal. Because the Project would construct housing, anticipated housing demand in the city can be accommodated in the city, and the level on unanticipated housing demand in the region would be small. Therefore, the Project would not induce a substantial level of unplanned population growth, either directly or indirectly, and impacts would be ***less than significant***.

Cumulative Impacts

The geographic context for the cumulative analysis is Santa Clara and surrounding cities, as illustrated in Chapter 3, *Environmental Impact Analysis*. As shown in Table 3-2, projects in these areas consist of the following: 11,382,016 gsf of commercial uses, 1,019 hotel rooms, and 21,774 residential units.

This analysis examines the effects of the proposed development in the city in combination with other current projects, probable future projects, and projected future growth within the applicable geographic context. Cumulative impacts are addressed only for those thresholds that would result in a Project-related impact, whether it be less than significant, significant, or significant and unavoidable. If the Project would result in no impact with respect to a particular threshold, it would not, by definition, contribute to a cumulative impact. Therefore, no cumulative analysis would be required. The Project would not result in the displacement of existing housing, resulting in no impact with respect to this topic. Thus, this topic is not analyzed for cumulative impacts.

Impact C-POP-1: Cumulative Population and Housing Impacts. The Project, in combination with other foreseeable development in the vicinity, would not induce substantial unplanned population growth within the city and region. (Less than Significant)

Construction

Construction of the cumulative projects described in Table 3-1 in Chapter 3, *Environmental Impact Analysis*, such as the projects under the Patrick Henry Specific Plan and in the Freedom Circle Focus Area, would add construction workers to the Project site and vicinity. In addition, construction of the Project would temporarily increase construction employment in Santa Clara. The number of construction workers per day would vary, depending on the construction phase, with an average of approximately 400 workers onsite at any one time. However, as discussed above, construction workers for the Project and construction workers associated with the cumulative projects would not be expected to relocate permanently for construction work and therefore would not substantially increase the population in the city or the county. Therefore, the cumulative projects and the Project would not result in a significant cumulative impact related to unplanned population growth during construction. Impacts would be ***less than significant***, and no mitigation would be necessary.

Operation

Table 3-2 in Chapter 3, *Environmental Impact Analysis*, identifies reasonably foreseeable projects in the city. These reasonably foreseeable projects include commercial, hotel, and residential development. Together, if all are approved and constructed, they would provide a projected 21,774 residential units, 1,019 hotel rooms, and approximately 11,382,016 gsf of commercial space. If these projects were to induce substantial population growth in the region that would exceed ABAG projections, the cumulative impact would be significant.

As discussed above, the cumulative scenario for this EIR includes 3 million gsf of office development for the Project site, as identified in the General Plan, and therefore is included in ABAG growth projections. Because the office development was included in projections, it would not contribute to a cumulative

impact related to unplanned population and housing growth. As shown in Table 3.12-6, retail, childcare, and residential uses would generate 544 employees who were not included in projections; however, within the cumulative context, this is a very small number and would not, in combination with other foreseeable development, significantly contribute to a cumulative impact. Therefore, the Project's contribution to a cumulative impact would be ***less than significant***, and no mitigation would be necessary.

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3.13 Public Services and Recreation

This section describes the existing public services and recreational facilities that serve the Mission Point Project (Project) site and evaluates the potential for impacts on public services that would result from development of the Project. The public services addressed in this section include fire and emergency services, police services, schools, parks and recreation, and libraries. The analysis is based on information regarding the capacity of existing public services and recreational facilities and the changes in facilities and service demands that would occur with the Project. Refer to Section 3.12, *Population and Housing*, for more data related to population, employment, and housing. In addition, relevant data, goals, and policies in the City of Santa Clara 2010–2035 General Plan (General Plan) are considered in this analysis.

Comments pertaining to public services were received in response to the Notice of Preparation (NOP) (Appendix 1). The NOP comments pertained to how demand for firefighting services would be affected by the Project and whether or not the fire department has the equipment necessary for the proposed buildings. This topic is discussed in the sections below.

Existing Conditions

Regulatory Setting

State

California Senate Bill 50 (1998)

Under the provisions of Senate Bill (SB) 50, school districts may collect Level Two and Level Three fees to offset costs related to increasing school capacities in response to growing student enrollments associated with development. Level Two fees require a project developer to provide half the costs of accommodating students in new schools, while the State of California (State) provides the other half. Level Three fees require a project developer to pay the full cost of accommodating students in new schools; the fees would be implemented at the time available funds 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, to qualify for Level Two or Level Three fees.

California Government Code, Section 65995(b)

In January 2022, the State Allocation Board approved an increase in statutory school facilities fees ("Level 1 School Fees"), per Government Code Section 65995(b), to $4.79 per square foot of assessable space in new residential construction; for commercial and industrial construction, school districts may now charge up to $0.78 per square foot.[1] These fees can increase every other year and are expected to continue to increase in response to inflation.

[1] State Allocation Board. 2022. *Annual Adjustment to SFP Grants and Developer Fee History*. Available: https://www.dgs.ca.gov/OPSC/Resources/Page-Content/Office-of-Public-School-Construction-Resources-List-Folder/Annual-Adjustment-to-SFP-Grants-and-Developer-Fee-History. Accessed: October 27, 2022.

Mitigation Fee Act

In 1989, the State Legislature passed Assembly Bill (AB) 1600, adding Section 66000 et seq. to the California Government Code (the Mitigation Fee Act, or MFA), which sets forth requirements for local agencies to follow if they collect fees from developers to defray the cost of the construction of public facilities related to development projects. These legal requirements are frequently referred to as "AB 1600 requirements." Each local agency imposing such development impact fees must prepare an annual report that provides specific information about the fees (i.e., a "nexus study") and shows a proper connection between the fees and a given project, along with information regarding how accounting and reporting are regulated with respect to the collected fees.

Quimby Act – California Code Section 66477

The Quimby Act (Quimby) was approved by the legislature to set aside parkland and/or require the payment of fees due in lieu of parkland dedication to help mitigate impacts from new residential developments. This legislation was initiated in response to California's increased rate of urbanization and the need to preserve open space and provide parks and recreational facilities for California's growing communities. The Quimby Act authorizes local governments to establish ordinances that require developers of new residential subdivisions to dedicate parkland, pay a fee in lieu of parkland dedication, or perform a combination of the two at the discretion of the City of Santa Clara (City).

Local

City of Santa Clara 2010–2035 General Plan

The General Plan[2] includes goals and policies associated with public services.

- **Goal 5.3.4-G3.** Mixed-use development that maximizes accessibility to alternate transportation modes and integrates pedestrian, bicycle, transit, open space, and outdoor uses to encourage active centers.
- **Goal 5.4.6-P8.** Discourage new development that has an adverse impact on public services such as schools.
- **Goal 5.9.1-G2.** Parks, trails, and open space located within a 10-minute walk to residential neighborhoods and employment centers.
- **Goal 5.9.1-G3.** New parks, open space, and recreation provided with new development so that existing facilities are not overburdened.
    - *Policy 5.9.1-P4.* Provide connections between private and public open space through publicly accessible trails and pathways and by orienting open spaces to public streets.
    - *Policy 5.9.1-P14.* Encourage publicly accessible open space in new development.
    - *Policy 5.9.1-P16:* Encourage non-residential development to contribute toward new park facilities to serve the needs of their employees.
    - *Policy 5.9.1-P17.* Foster site design for new development so that building height and massing do not overshadow new parks and plazas.

[2] City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan*. Adopted: November 16, 2010. Last amended: December 9, 2014. Available: http://santaclaraca.gov/index.aspx?page=1263. Accessed: October 27, 2022.

- *Policy 5.9.1-P18.* Promote open space and recreational facilities in large-scale developments in order to meet a portion of the demand for parks generated by new development.
- *Policy 5.9.1-P20.* Promote the continuation of a parks-per-population ratio of 2.4 per 1,000 residents and explore the potential to increase the ratio to 3.0, based on the Parks and Recreation Needs Assessment (Parks Master Plan), referenced in Plan Prerequisite 5.1.1-P24.
- *Policy 5.9.2-P2.* Periodically evaluate library services and facilities in order to respond to changing community demands.
- *Policy 5.9.2-P3.* Provide library services that are accessible and of adequate size to serve community residents, particularly for Future Focus Areas, north of the Caltrain corridor.
- *Policy 5.9.3-P3.* Maintain a citywide average 3-minute response time for 90 percent of police emergency service calls.
- *Policy 5.9.3-P4.* Maintain a citywide average 3-minute response time for fire emergency service calls.
- *Policy 5.10.5-P24.* Protect city residents from the risks inherent in the transport, distribution, use, and storage of hazardous materials.
- *Policy 5.10.5-P28.* Continue to require all new development and subdivisions to meet or exceed the City's adopted fire code provisions.

Santa Clara Municipal Fire and Environmental Code

The Santa Clara Municipal Fire and Environmental Code, adopted by the City in 2022, adopts by reference the 2022 edition of the California Fire Code (CFC), with necessary amendments to address local climatic, geologic, and topographic conditions.

City of Santa Clara City Code Chapter 17.35

The purpose of City of Santa Clara City Code (City Code) Chapter 17.35 is to help mitigate the impacts of growth from new housing development on existing parkland and recreational facilities, pursuant to the provisions of the Quimby Act and/or the MFA. Chapter 17.35 requires new residential developments to provide developed park and recreational land and/or pay a fee in lieu of parkland dedication, at the City's discretion. The City is meeting the parkland dedication standard of 3 acres per 1,000 residents per the Quimby provisions of the City Code and 2.6 acres per 1,000 residents per the MFA provisions of the City Code for neighborhood parks.

City of Santa Clara Parks and Recreation Department Park Amenity and Design Standards

The City of Santa Clara Parks and Recreation Department (Parks Department) created a research-based "best practices" series of standards for the planning of new parks and recreational facilities as well as the rehabilitation of existing parks and recreational facilities, supporting a City Council–adopted strategic goal to enhance park, recreational, sports and art assets. The standards also provide guidance to landscape architects, grounds maintenance personnel, and others regarding what is acceptable for public parks.

Santa Clara Unified School District Strategic Plan

The Santa Clara Unified School District (SCUSD) creates a strategic plan every 3 to 5 years. It includes strategies, goals, and progress measures designed to realize the district's vision. The strategic plan allows

the district to assess and monitor connections and interactions among strategies to ensure the alignment of implementation actions and "course correct" if necessary.

Environmental Setting

Fire and Emergency Services

Fire protection and emergency medical response services for the Project site are provided by the Santa Clara Fire Department (SCFD). Santa Clara County Emergency Medical Services contracts with Rural Metro to provide emergency medical transport services for Santa Clara. According to the SCFD, Santa Clara has a total of 10 fire stations, one of which is currently being relocated, with approximately 167 paid personnel, including 132 budgeted Suppression Division positions (firefighters).[3] The equipment includes eight engines, two trucks, one rescue/light unit, two ambulances, one hazardous materials unit, and one command vehicle.[4]

SCFD headquarters is at Benton Street and Alviso Street. Fire protection at the Project site would be provided by Fire Station 8, which is closest to the Project site until Fire Station 10 is rebuilt (see Figure 3.13-1). The old Fire Station 10 has been demolished. The new Fire Station 10 will be constructed in the vicinity of 5201 Great America Parkway. That project is estimated to be completed in 2025. The recently upgraded Fire Station 8 at 2400 Agnew Road, approximately 1 mile southeast of the Project site, would be the first-response station for the Project area until completion of Fire Station 10. Fire Station 8, which is staffed with three firefighters, would provide Advance Life Support services at the Project site. The nearest hazardous materials unit is Fire Station 9, located at 3011 Corvin Drive, approximately 1.5 miles south of the Project site; however, that could change in the future.

The SCFD aims to meet the nationally recognized National Fire Protection Association (NFPA) 1710 response standard (i.e., response time) of 5 minutes and 20 seconds for 90 percent of calls.[5] The SCFD's current response time, as measured from time of dispatch to arrival, for 90 percent of all fire suppression incidents and all emergency medical responses is 7 minutes.

As of 2022, the SCFD is serving a resident population of approximately 130,365 and a daytime population of approximately 200,000; however, on stadium event days, the number can exceed 250,000. With 132 current Suppression Division positions, the current firefighter-to-resident ratio is approximately 1.01 firefighters per 1,000 residents; for the daytime population, the ratio is 0.66 firefighter per 1,000. Although the NFPA standard for a comparable city size is 1.41 firefighters per 1,000 residents, the SCFD does not use a population-based staffing standard but, rather, bases its staffing model on the ability to send trained and equipped personnel within response times. The SCFD considers its current equipment, staffing, facilities, and response times adequate to meet the needs of the city, but additional staffing and equipment will be needed to keep up with population growth and maintain response times.[6]

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3 Tomlin, Jake. Fire Marshal. October 27, 2022—response to ICF questionnaire.

4 Ibid.

5 The NFPA's 1710 response standard specifies requirements for effective and efficient organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by career fire departments to protect citizens and the occupational safety and health of fire department employees. National Fire Protection Association. n.d. *NFPA 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*. Available: http://www.nfpa.org/codes-and-standards/document-information-pages?mode=code&code=1710. Accessed: December 14, 2022.

6 Tomlin, Jake. Fire Marshal. September 3, 2019, and October 27, 2022—ICF questionnaire.



ICF Graphics - 00218.18 (11-07-2023) JC

Figure 3.13-1
Public Services Serving the Project Site
Mission Point Project

Police Services

Police protection services for the Project site are provided by the Santa Clara Police Department (SCPD). In case of extreme emergency, a mutual-aid agreement with surrounding jurisdictions ensures an adequate response. In addition, the SCPD has service agreements with multiple agencies throughout California to provide per diem "special event" police officers for events at Levi's Stadium. The Project site would be served by a full-service police station at 601 El Camino Real (see Figure 3.13-1), approximately 3.8 miles to the southeast. The Northside Substation at 3992 Rivermark Parkway, 1.9 miles east of the Project site, was closed in March 2020 as a result of the pandemic and then a budget reduction.[7] SCPD headquarters is located at 601 El Camino Real. As of 2022, the SCPD had an authorized (budgeted) staff with 232 full-time employees, consisting of 153 sworn officers and 79 civilian personnel. The SCPD also has an extensive number of as-needed employees to support daily operations (e.g., crossing guards, per diem special event police officers, per diem traffic control officers, and per diem dispatchers).[8] SCPD personnel are divided among four divisions: the Field Operations Division (patrol), the Investigations Division (Detective Bureau), the Special Operations Division, and the Administrative Services Division.[9]

As of 2022, the SCPD served approximately 130,000 residents as well as a larger daytime population, which includes commuters, visitors, students, and others. Santa Clara serves as a major employment center for daily workers and business travelers. It also houses high-tech corporate employers, such as Agilent Technologies, Applied Materials, Cisco, Citrix, EMC, Intel, Oracle, NVidia, McAfee, and Sun Microsystems. Although the SCPD does not have a methodology for quantifying the daytime service population, it can be assumed to be between 200,000 and 250,000, depending on whether a large event is occurring.[10]

The SCPD does not maintain a population-based standard for staffing. According to the International Association of Chiefs of Police, although police agencies routinely speak about "recommended officers per 1,000 population," a "national standard" for staffing or comparisons to other municipalities does not exist.[11] The SCPD bases its staffing decisions on actual workload and the interpretation and analysis of data to provide a meaningful methodology for determining appropriate staffing levels, according to day of the week, time of day, seasonality, community expectations, crime types, and other factors. In 2016, the SCPD, with assistance from the Center for Public Safety Management (CPSM), presented a 175-page workload and staffing analysis to City Council. The findings recommended increasing the SCPD's staff from 217 to 241, which the City Council approved. The CPSM report also noted that several new residential and commercial developments in the city would increase vehicle traffic, associated traffic-related calls for service (e.g., enforcement and accident investigations), and response times for other service calls. Since the staffing increase in 2016, the SCPD's personnel resources have not matched the need generated by development in the city that has occurred from 2016 onward. As of October 2022, the SCPD had 30 vacancies for 16 sworn and 14 civilian professionals.[12]

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7 McDowell, Carolyn. Senior Management Analyst, Santa Clara Police Department. October 11, 2022—response to ICF questionnaire.

8 Ibid.

9 City of Santa Clara Police Department. 2022. *Divisions*. Available: https://www.santaclaraca.gov/our-city/departments-g-z/police-department/about-us/divisions. Accessed: December 14, 2022.

10 McDowell, Carolyn. Senior Management Analyst, Santa Clara Police Department. October 11, 2022—response to ICF questionnaire.

11 Center for Public Safety Management. 2014. *Officers per Thousand and Other Deployment Myths*. Available: https://www.cpsm.us/officers-per-thousand-and-other-deployment-myths/. Accessed: December 15, 2022.

12 McDowell, Carolyn. Senior Management Analyst, Santa Clara Police Department. October 11, 2022—response to ICF questionnaire.

As shown in Table 3.13-1, in 2021, the SCPD Communication Center received 170,101 calls, 196 texts to 911, and 61,421 calls for police service. Although the total number of calls has varied over the time span shown in the table, they have gone below the 2016 total only once (2020). Calls for police service were consistently above 2016 levels in the following years.

The City General Plan includes Policy 5.9.3-P3, which asserts that an average 3-minute response time should be maintained for 90 percent of police emergency services citywide. The SCPD is currently meeting this policy goal, with an average response time of 2 minutes and 59 seconds.[13] Although the SCPD is meeting the response time, its staff has been increasingly strained as a result of community growth and a tighter budget resulting from legislative requirements and technology costs. In addition, SCPD facilities have little room to grow. Any expansion would need to consider the land footprint (e.g., restrictions with respect to adding parking and future restrictions due to planned developments adjacent to the building), building infrastructure (e.g., the limited space for additional locker rooms, common rooms, briefing, report writing, conferences/training, cubicles, storage), and the ability to increase non-building-related or staff-related functions.

School Services

The SCUSD provides public education services to students within a 56-square-mile area that includes neighborhoods in the cities of Santa Clara, Sunnyvale, San José, and Cupertino.[14,15] The SCUSD serves more than 15,300 kindergarten (K) through 12th-grade students and an additional 6,000 students in preschool or adult school. The SCUSD consists of 18 elementary schools, four middle schools, six high schools, one K–8 school, one adult education school, one dual-language immersion program, one independent study program, and one community school.

Collectively, the SCUSD has the capacity for 17,104 students. Student enrollment was 13,763 in the 2021/2022 school year. As a result, facility capacity exceeded student enrollment at the elementary and middle school levels, while enrollment exceeded capacity at the high school level in the 2021/2022 school year.[16] The county as a whole has seen a consistent decline in student enrollment over the past 7 years, with 21,323 fewer K–12 students enrolled in the last school year than in the 2015/2016 school year.[17] In addition, the California Department of Finance (DOF) projects the trend of declining enrollment will continue into the next decade statewide. The DOF expects a decline in enrollment of 16.21 percent by 2031.

The Project site is currently served by Kathryn Hughes Elementary (4949 Calle De Escuela, Santa Clara), approximately 0.9 northeast of the Project site, Huerta Middle School (3556 Zanker Road, San José), approximately 2.5 miles east of the Project site; and Kathleen MacDonald High School (3588 Zanker Road, San José), approximately 2.5 miles east of the Project site.[18] Hughes Elementary is housed in permanent

[13] Ibid.

[14] Santa Clara Unified School District. 2022. *About Us.* Available: https://www.santaclarausd.org/domain/15. Accessed: December 13, 2022.

[15] Santa Clara Unified School District. 2022. *School Directory*. Available: https://www.santaclarausd.org/schools. Accessed: December 15, 2022.

[16] Cooperative Strategies. 2022. *Residential Commercial/Industrial Development School Fee Justification Study*. March 24, 2022.

[17] *San José Spotlight*. 2022. "Santa Clara County Schools Face Impacts of Declining Enrollment." February 21. Available: https://sanjosespotlight.com/dewan-santa-clara-county-schools-face-impacts-of-declining-enrollment/. Accessed: December 22, 2022.

[18] Healy, Michal. Director, Facility Development and Planning, Santa Clara Unified School District. October 6, 2022—response to ICF questionnaire.

Table 3.13-1. Calls and Texts to SCPD Communications Center by Year

	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total Calls to the Communications Center	170,383	184,992	172,591	163,406	167,821	177,881	179,736	151,615	170,101
Texts to 911	n/a	n/a	n/a	n/a	n/a	43	62	167	196
Police Calls for Service	57,703	61,390	56,757	50,211	53,865	58,912	61,931	68,865	61,421

Sources: McDowell, Carolyn. Senior Management Analyst, Santa Clara Police Department. October 11, 2022—response to ICF questionnaire.

buildings as well as portable structures. According to the SCUSD, staff and student support and multipurpose space is currently inadequate and too small.[19] Huerta Middle School has six to eight classrooms and support spaces. MacDonald High School is a comprehensive high school and includes a theater, design labs, a library media center, culinary classroom, stadium, baseball and softball fields, tennis courts, and a pool. As of August 2022, MacDonald High School was open only to the ninth-grade class; a new grade will be added each year as the students progress. Additional capacity at the high school is expected in the future. The school will be open to all grades by the time the Project is operational, with full build-out in 2025/2026.[20,21]

As shown in Table 3.13-2, Kathryn Hughes Elementary can accommodate 421 students. The SCUSD can accommodate 8,680 transitional kindergarten (TK) through 5th-grade students within the district, and there is currently space for an additional 2,124 TK–5 students within the SCUSD system. Huerta Middle School can accommodate 1,000 middle school students. The SCUSD can accommodate 4,567 middle school students within the SCUSD system. Kathleen MacDonald High School can accommodate 1,600 high school students. The SCUSD can accommodate 3,857 high school students within the district. As shown in the table, the high schools are currently over capacity, with the shortage of space affecting 390 students. However, this shortage will not exist when MacDonald High School becomes fully operational (2025/2026), which will be before the Project is operational.

Table 3.13-2. Enrollment and Capacity for School Service Project Site

	Student Capacity per School	Total SCUSD Capacity by School Level[a]	Existing SCUSD Capacity by School Level[a]
Kathryn Hughes Elementary (4949 Calle De Escuela, Santa Clara)	421[a]	8,680 (TK–5)	2,124 (TK–5)
Huerta Middle School (3556 Zanker Road, San José),	1,000[a]	4,567 (6–8)	1,607 (6–8)
Kathleen MacDonald High School (3588 Zanker Road, San José)	1,600[b]	3,857 (9–12)	(390) (9–12)
Total		**17,104**	

Sources:

a. Cooperative Strategies. 2022. *Residential Commercial/Industrial Development School Fee Justification Study*. March 24.

b. The Raymond Group. 2022. *Kathleen MacDonald High School*. Available: https://www.raymondgroup.com/blog/kathleen-macdonald-high/. Accessed: December 22, 2022.

Parks and Recreation

The Project site is within 3 miles of park and recreational facilities provided by the County of Santa Clara (County), the City of Santa Clara, and the City of Sunnyvale (see Figure 3.13-1).

19 Ibid.

20 *Silicon Valley Voice*. 2021. "Planning for Kathleen MacDonald High School Picks Up Speed" October 15, 2021. Available here: https://www.svvoice.com/planning-for-kathleen-macdonald-high-school-picks-up-speed/. Accessed: December 22, 2022.

21 Sriram, Uma. School Secretary III, MacDonald High School. January 6, 2023—response to email question.

City of Santa Clara Parks and Recreation Department Facilities

The Parks Department provides park and recreational services in Santa Clara. The Parks Department is responsible for maintaining and programming the various park and recreational facilities and works cooperatively with public agencies in coordinating all recreational activities in Santa Clara. As of May 2023, the Parks Department maintains and operates two community parks (Central Park, with 45.04 acres improved, and Central Park North, with 34.93 acres unimproved); 31 neighborhood parks (125.572 acres improved and 5.220 acres unimproved, resulting in 130.792 acres); 13 mini parks (2.59 acres improved and 3.189 acres unimproved, resulting in 5.779 acres); public open space (16.13 acres improved and 40.08 acres unimproved, resulting in 56.21 acres); recreational facilities (23.898 acres improved), excluding the BMX track; recreational trails (7.59 acres improved and 0.20 acre unimproved, resulting in 7.79 acres); and joint-use facilities (48.588 acres) throughout Santa Clara. This amounts to approximately 269.408 improved acres and 83.619 unimproved acres of park and recreational facilities.

Regarding the sizes for park facilities, community parks are more than 15 acres, neighborhood parks are 1 to 15 acres, and mini parks are typically less than 1 acre. There are no neighborhood parks in Santa Clara within a 10-minute walk (i.e., 0.5-mile radius) of the Project site.

City of Sunnyvale Recreation and Community Department Facilities

The City of Sunnyvale maintains two parks that are within 1 mile of the Project site:

- Fairwood Park, located approximately 0.35 mile southwest of the Project site. The 1.9-acre park includes a large picnic area with electric outlets, parcourse, two playgrounds, radio-controlled car track and access to the trailhead for the John Christian Greenbelt pathway. Reservable multi-use sports fields, basketball courts, three horseshoe pits, and two sand volleyball areas are also available.[22]
- Lakewood Park, approximately 0.85 mile west of the Project site. The 10.7-acre park includes a basketball court, two reservable ballfields, two horseshoe pits, skateboard ramps, two playgrounds, two tennis courts, two handball or racquetball courts, and access to the John W. Christian Greenbelt.[23]

City of San José Parks

Guadalupe River Trail, located approximately 2 miles east of the Project site, extends 3 miles from US 101 on the south to more than 150 acres of parkland near the city limits. The 9-mile northern/central reach of the Guadalupe River Trail extends from Alviso to Guadalupe River Park in San José. The Guadalupe River Trail runs along both sides of the river on top of levees. The trail that runs on the Santa Clara side is unpaved, while the trail on the San José side is paved and includes interpretive signage. Both the 8-mile San Tomas Aquino/Saratoga Creek Trail (discussed below) and Guadalupe River Trail connect to the regional Bay Trail, which links perimeter open space areas along San Francisco and San Pablo Bays.

[22] City of Sunnyvale. 2022. *Fairwood Park*. Available: https://www.sunnyvale.ca.gov/Home/ Components/ FacilityDirectory/FacilityDirectory/42/260. Accessed: December 18, 2022.

[23] City of Sunnyvale. 2022. *Lakewood Park*. Available: https://www.sunnyvale.ca.gov/Home/Components/ FacilityDirectory/FacilityDirectory/50/456. Accessed: December 18, 2022.

Santa Clara County Parks

Santa Clara County Parks is one of the largest regional park systems in California, providing recreational opportunities in 28 regional parks that encompass more than 52,000 acres.[24] There are no County parks in Santa Clara; however, the following two County facilities are within 2 miles of the Project site:

- Sunnyvale Baylands Park is the closest County park to the Project site. Operated by the City of Sunnyvale, the park is approximately 1 mile northwest of the Project site. The park provides more than 70 acres of recreational space, including pathways and picnic areas.[25]
- San Tomas Aquino/Saratoga Creek Trail, approximately 0.35 mile east of the Project site at its closest point, runs within neighborhoods throughout Santa Clara. The San Tomas Aquino/Saratoga Creek Trail is an approximately 8-mile-long walking, running, and bicycling trail, extending south from San Francisco Bay to Cabrillo Avenue in San José. The City-maintained public parking lot at the former Santa Clara Golf and Tennis Club provides parking and trail access.[26]

Libraries

Library services are provided by the Santa Clara City Library (SCCL). Santa Clara is currently served by three libraries, Central Park Library at 2635 Homestead Road, approximately 4 miles south of the Project site; Mission Branch Library at 1098 Lexington Street, approximately 4.15 miles southeast of the Project site; and Northside Branch Library at 695 Moreland Way, approximately 1.9 miles southeast of the Project site (see Figure 3.13-1). Together, these facilities total approximately 104,770 square feet.

The Project site is served by Northside Branch Library, a 15,000-square-foot building that includes a 2,000-square-foot community room, group study areas, and a technology center.[27] Northside Branch Library contains 40,000 items, including books, movies, and digital collections. As of November 2022, Northside Branch Library had been open for 8 years. Northside Branch Library has the facilities needed to meet existing local demand for library services.

The California State Library system does not have a formal standard for measuring the adequacy of facilities and services. However, guidelines for determining minimum library space requirements are maintained by the American Planning Association (APA). An evaluation of building size and condition is necessary to determine whether a structure can provide the necessary services. The standards for building size are generally expressed in terms of square feet per capita. The Experience Formula for Library Size and Costs used by APA suggests minimum sizes that range from 0.3 square foot per capita for libraries that serve 50,000 people or more to 0.6 or 0.65 square foot for those that serve 10,000 to 35,000 people.[28] As of January 2022, the U.S. Census Bureau estimated the city's population to be approximately

[24] Santa Clara County Parks. 2022. *About Us*. Available: https://parks.sccgov.org/about-parks. Accessed: December 18, 2022.

[25] Santa Clara County Parks. 2022. *Sunnyvale Baylands Park*. Available here: https://parks.sccgov.org/santa-clara-county-parks/sunnyvale-baylands-park. Accessed: December 18, 2022.

[26] City of Santa Clara. 2022. *Parks – San Tomas Aquino/Saratoga Creek Trail*. Available: http://santaclaraca.gov/Home/Components/ServiceDirectory/ServiceDirectory/1277/2654. Accessed: December 30, 2022.

[27] Santa Clara City Library. 2022. *About Northside Branch Library*. Available: https://www.sclibrary.org/about-us/locations-and-hours/northside-branch-library/about-northside-branch-library. Accessed: December 19, 2022.

[28] American Planning Association. 1968. *Planning the Public Library*. Last revised: December 1, 1968. Available: https://www.planning.org/pas/reports/report241.htm. Accessed: December 23, 2022.

130,127.[29] Therefore, as of 2022, the SCCL was providing approximately 0.81 square foot of library space per capita.

Environmental Impacts

This section describes the impact analysis related to public services and recreation for the Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

Thresholds of Significance

The Project would have a significant effect if it would result in any of the conditions listed below.

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:
    - Fire protection (PS-1 and C-PS-1)
    - Police protection (PS-2 and C-PS-1)
    - Schools (PS-3 and C-PS-1)
    - Parks (PS-4 and C-PS-1)
    - Other public facilities (PS-5 and C-PS-1)
- Increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated (PS-4 and C-PS-1)
- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment (PS-4 and C-PS-1)

Methods for Analysis

Potential impacts on public services are evaluated by (a) assessing the potential for the Project to increase demand for public services, based on goals established by service providers, and (b) comparing the ability of the service provider/public facility to serve the Project and accommodate the associated increase in demand. A determination is then made as to whether the existing facilities would be capable of meeting the demand of the Project and, if not, whether the expansion of existing facilities could cause an adverse environmental effect. The analysis is based on a review of City documents and maps, direct communication with local service providers, and other applicable resources. Impacts on public services resulting from potential Project population growth inducement in Santa Clara is discussed in Chapter 4, *Other CEQA Considerations*.

[29] California Department of Finance. 2022. *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020–2022*. Available: https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2022/. Accessed: October 28, 2022.

Impacts and Mitigation Measures

Impact PS-1: Fire Services and Facilities. The Project would not result in the need for new or physically altered fire service facilities. (Less than Significant)

Construction

Construction of the Project could result in up to 400 onsite construction workers. However, as discussed in Section 3.12, *Population and Housing*, these 400 onsite construction workers would most likely be drawn from the existing and future labor market in the city and the county and would be included with the service population of the SCFD. Therefore, they would not put additional strain on fire protection services that would require rehabilitation or the construction of new facilities. As such, Project construction impacts related to fire protection would be ***less than significant***.

Operation

Operation of the Project would result in 3,870 additional residents and 12,544 additional employees in the area, as shown in Table 2-6 in Chapter 2, *Project Description*.[30] This could result in an increase in the number of calls for fire protection and emergency services. As discussed under *Existing Conditions*, the SCFD includes 132 Suppression Division positions, serving a resident population of 130,365 and resulting in a ratio of 1.01 firefighters per 1,000 residents. The addition of the Project's 3,870 residents to the SCFD's service population would reduce the service ratio to 0.98 firefighter per 1,000 residents. However, SCFD does not use a population-based staffing standard but, rather, bases its staffing on the ability to send trained and equipped personnel within response times.

Although the SCFD currently has an average response time of 7 minutes from dispatch to arrival, slightly short of the NFPA 1710 response standard of 5 minutes and 20 seconds, the SCFD considers its current equipment, staffing, facilities, and response times adequate with respect to meeting the needs of the city.[31] Prior to 2025, the Project site would be served by Fire Station 8, approximately 1 mile to the southeast; however, Fire Station 10 will be constructed in the vicinity of 5201 Great American Parkway, approximately 0.3 mile north of the Project site. It is estimated that Fire Station 10 will be completed in 2025, which is before any part of the Project site would be fully constructed. Once operational, Fire Station 10 will provide service at the Project site in the event of a fire or medical emergency, thereby reducing response times for the area.

The Santa Clara Municipal Fire and Environmental Code incorporates the 2022 CFC. All new construction under the Project would need to be in conformance with the codes, which require new construction to facilitate emergency access and include fire protection systems such as alarm systems and sprinklers. This would reduce the risk of fire in new buildings, whether residential, office, or retail.

Additionally, a Fire Service Needs Assessment (Needs Assessment) was prepared for the Project in 2023. The Needs Assessment found that current service levels could be maintained with the operation of the Project, provided there was an increase in the personnel, the positions of Fire Protection Engineer and Deputy Fire Marshal were filled, and Fire Station 10 was completed and staffed.[32] No specific need for

[30] Keyser Marston Associates. 2022. *Memorandum: Projected Population and Employment, Mission Point Project.* September 9, 2022.

[31] Tomlin, Jake. Fire Marshal. October 27, 2022—response to ICF questionnaire.

[32] The current identified funding source for any additional fire protection personnel is the City's General Fund.

additional facilities that could result in physical environmental impacts were identified in the Needs Assessment.[33]

Based on the above, the Project would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered fire protection facilities in order to maintain acceptable service ratios, response times, or other performance objectives. As such, the Project's operational impacts related to fire protection would be ***less than significant***.

Impact PS-2: Police Services and Facilities. The Project would not result in the need for new or physically altered police service facilities. (Less than Significant)

The Project could affect the SCPD by intensifying site activity; adding new residents, employees, and visitors; increasing square footage; and increasing traffic incidents. Adding to the service population would lead to an overall increase in service calls to the SCPD. The Project is currently served by SCPD headquarters at 601 El Camino Real.

Construction

Construction of the Project could result in up to 400 onsite construction workers. The SCPD currently serves a daytime population of between 200,000 and 250,000. As discussed in Section 3.12, *Population and Housing*, these 400 onsite construction workers would most likely be drawn from the existing and future labor market in the city and the county; therefore, these workers would not increase the SCPD's existing service population in a way that would necessitate the expansion of SCPD facilities. As such, Project construction impacts related to police protection would be ***less than significant***.

Operation

The additional residents and daytime population generated by operation of the Project would result in an increase in the number of calls for law enforcement services. As discussed under *Existing Conditions*, the SCPD has 232 full-time employees, consisting of 153 sworn officers and 79 civilian personnel serving a resident population of approximately 130,000 (and a daytime population between 200,000 and 250,000). The addition of the Project's 3,870 residents and 12,544 employees would increase the SCPD's service population.[34] The SCPD does not use a population-based staffing standard but, rather, bases its staffing decisions on workload and other data. However, as the 2016 CPSM report found, the SCPD needed additional staff and facilities to cope with growth resulting from new residential and commercial development. The SCPD currently has 30 vacancies. Although staffing needs are an important policy and public safety consideration, CEQA's focus is on direct physical effects on the environment as well as changes that would trigger a need for the construction of new facilities.

The SCPD has an average response time of 2 minutes and 55 seconds, which meets the City General Plan Policy 5.9.3-P3 goal of 3 minutes. The increase in residential and daytime population could affect this response time. The 2016 CPSM report noted that growth in the city could result in more calls for traffic-related incidents. The need for additional officers and staff due to Project implementation could result in the need for additional equipment (e.g., radios, vehicles, computers) and a redesign of existing SCPD facilities to resolve capacity issues (e.g., the current locker rooms are at or near capacity). However, Project implementation is only one of several variables - which include crime statistics/trends, calls for

[33] PyroAnalysis. 2023. *Mission Point by Kylli Inc. – Fire Service Needs Assessment.* June 12, 2023.

[34] Keyser Marston Associates. 2022. *Memorandum: Projected Population and Employment, Mission Point Project.* September 9, 2022.

service, response times, minimum staffing levels, community demographics, workload/performance, public demands for service, authorized budget levels, and political issues - that may trigger then need for additional staff and resources. The SCPD has no plans to add equipment or expand its current facility at 601 El Camino Real. Although additional SCPD staff may be required, the Project on its own would not trigger the need for the construction of a new police facility or the expansion of the existing one. In addition, the SCPD participates in a mutual aid agreement with the other law enforcement jurisdictions in Santa Clara County, which could provide services to the Project site, as needed. Furthermore, the Project alone would not result in any impacts to the SCPD's response time objectives.

Based on the above, the Project would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered police facilities in order to maintain acceptable service ratios, response times, or other performance objectives. As such, the Project's operational impacts related to police protection would be ***less than significant***.

Impact PS-3: School Facilities. The Project would not result in the need for new or physically altered school facilities. (Less than Significant)

Construction

Construction of the Project could result in up to 400 onsite construction workers at any one time. However, as discussed in Section 3.12, *Population and Housing*, these 400 onsite construction workers would most likely be drawn from the existing and future labor market in the city and the county and would be included with the anticipation student population of the SCUSD. Therefore, construction of the Project would not trigger a need for new schools or require expansion or rehabilitation of existing facilities. As such, Project construction impacts related to schools would be ***less than significant***.

Operation

The SCUSD uses metrics to estimate student generation, based on development type. According to the SCUSD, the Project is expected to result in 30 elementary school students, 11 middle school students, and 14 high school students.[35,36] However, the District also noted that student numbers would increase substantially if affordable housing units are included. Analysis using a different generation rate for affordable units was prepared by Economic & Planning Systems (EPS) for the Project in 2023 and determined that the Project would result in 176 new students.[37]

As discussed under *Existing Conditions*, school enrollment in the City has been consistently declining over the last 7 years and is projected to continue declining over the next decade. Capacity for additional students currently exists in Kathryn Hughes Elementary and Huerta Middle School, which would serve the Project area. Capacity for additional students at Kathleen MacDonald High School would be available by the time the Project is operational.

[35] Cooperative Strategies. 2022. *Residential Commercial/Industrial Development School Fee Justification Study*. March 24, 2022.

[36] Healy, Michal. Director, Facility Development and Planning, Santa Clara Unified School District. October 6, 2022—response to ICF questionnaire.

[37] Economic & Planning Systems (EPS). 2023. Table S-2 Mission Point Project Student Generation Projection Fiscal Impact Analysis for Mission Point Project, Santa Clara; EPS#221104.

The Project would be subject to SB 50 School Impact Fees. As a result of the wide-ranging changes in the financing of school facilities, including the passage of State school facilities bonds, intended to provide a major source of financing for new school facilities, Section 65996 of the State Government Code states that the payment of school impact fees established by SB 50 is deemed to constitute full and complete mitigation for school impacts from development that may be required from a developer by any State or local agency. Although the payment of the school impact fee by the Project Sponsor could contribute toward the construction or expansion of schools, any actual construction or expansion of school facilities would not be a direct result of the Project and would be required to undergo a separate CEQA review process.

For the reasons noted above, Project operation would not trigger a need for the construction of new schools or expansion of existing facilities, resulting in a ***less-than-significant*** impact.

Impact PS-4: Parks and Recreation Facilities. The Project would not result in the need for new or physically altered parks and recreational facilities, would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration would result, and would not include or require construction of recreational facilities that might have an adverse physical effect. (Less than Significant)

Construction

Construction of the Project could result in up to 400 onsite construction workers at any one time. However, as discussed in Section 3.12, *Population and Housing*, these 400 onsite construction workers would most likely be drawn from the existing and future labor market in the city and the county. Construction of the Project would not result in the need for new or physically altered park facilities, would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration would result, and would not require construction of recreational facilities that might have an adverse physical effect. As such, Project construction impacts related to parks would be ***less than significant***.

Operation

The Project would increase the population in the area and therefore increase the demand for local neighborhood and community parks and recreational space. The Project could generate 4,320 new residents in Santa Clara.[38] Table 3.13-3 shows the parkland acreage requirement to mitigate the impact of the new resident demand on existing parkland and recreational facilities and meet the parkland dedication standard of 3 acres per 1,000 residents under the Quimby Act provisions of City Code and 2.6 acres per 1,000 residents under the MFA provisions of City Code.

[38] For impacts on parks and recreational facilities, this analysis uses the "average density" number as defined in City Code 17.35.10(c). The average density is the persons per household as established by City Council resolution in accordance with recent available Federal Census data. For this reason, 4,320 residents (1,800 units * 2.4 persons per household) are used instead of the 3,870 new residents used for the Project.

Table 3.13-3. Calculated Acreage of New Park Land Required to City Code and MFA

	Number of New Residents	Number of Acres per 1,000 Residents	Total New Parkland Acreage Required
Quimby Act[a]	4,320	3.0	12.96
California Mitigation Fee Act[b]	4,320	2.6	11.232

Sources:

a. City of Santa Clara. 2022. *Chapter 17.35, Park and Recreational Land*. Available: https://www.codepublishing.com/CA/SantaClara/html/SantaClara17/SantaClara1735.html. Accessed: December 19, 2022.

b. City of Santa Clara. 2021. *Resolution No. 21-8970.* Available: https://www.santaclaraca.gov/home/showpublisheddocument/74288/637595419783900000. Accessed: September10, 2023

The Project includes approximately 10 acres of dedicated parkland and approximately 4 acres of private active recreational amenity space. Per City Code Section 17.35.070, where private active recreational space is to be provided in a residential development, the developer may submit a written request with a project application for a credit against the amount of parkland dedication required of the project. A maximum credit of 50 percent of the value of the eligible land devoted to active private recreational space may be given against the requirement for land dedication. The Project would dedicate parkland and provide recreational space, avoiding the impact of new residents on existing park and recreational space. If the amount of acreage changes, a fee in lieu of parkland dedication could be required. The open space created by the Project would allow for a variety of recreational activities within gathering spaces, experiential spaces, and active and passive recreational spaces. Because the Project would provide public parkland and private recreational space that would meet the demands of Project residents, it would not increase demand on existing parks and recreational spaces. Therefore, very little physical deterioration would occur at existing facilities as a result of the Project. The physical effects on the environment from construction of public parkland and private recreational space are discussed throughout this environmental impact report (EIR).

Based on the above, with the parkland dedication and the additional acres of private active recreational amenity space that would be available to Project residents, the Project would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered park facilities in order to maintain acceptable service ratios or other performance objectives and would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration would result. Although the Project would include the construction of recreational facilities, the physical effects of this construction are discussed throughout this EIR. As such, Project impacts related to parks would be ***less than significant***.

Impact PS-5: Library Facilities. The Project would not result in the need for new or physically altered library facilities. (Less than Significant)

Construction

The Project could result in up to 400 onsite construction workers. However, as discussed in Section 3.12, *Population and Housing*, the 400 onsite construction workers would most likely be drawn from the existing and future labor market in the city and the county and therefore would not put additional strain on library services that would require rehabilitation or the construction of new library facilities.

Operation

The addition of the Project's 3,870 residents and 12,544 employees on the Project site would increase the population of library users.[39] However, as discussed in Section 3.12, *Population and Housing*, Association of Bay Area Governments projections for Santa Clara indicate that the city will have approximately 151,715 residents in 2035. Assuming that no additional library space is added within the city, a population of 151,715 residents would result in 0.69 square foot of library space per capita, exceeding the APA's suggested minimum of 0.3 square foot per capita for libraries that serve 50,000 people or more.

Based on the above, the Project would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered library facilities in order to maintain acceptable service ratios or other performance objectives. As such, the Project would result in a ***less-than-significant*** impact related to libraries.

Cumulative Impacts

The geographic context for the analysis of cumulative public service impacts is the service area of the service in question. The geographic context for cumulative impacts related to fire protection, police service, park/recreational facilities, and libraries is the city because these services are provided on a citywide basis, and the service ratios by which demand is estimated are based on citywide figures. The cumulative analysis for impacts on schools would include the communities served by the SCUSD, which serves all of Santa Clara, the eastern portion of Sunnyvale, the northern portion of San José, all of Alviso, the northeastern portion of Cupertino, and the western portion of Milpitas; therefore, the geographic context for cumulative impacts related to schools includes these communities in addition to Santa Clara.

This cumulative analysis examines the effects of the Project in the relevant geographic area in combination with other past, current projects, and probable future projects and projected future growth.

Impact C-PS-1: Cumulative Public Service Impacts. The Project in combination with other foreseeable development in the city would not result in the need for new or physically altered public service facilities. (Less than Significant)

Fire Services

Construction

Construction of the cumulative projects described in Table 3-1 in Chapter 3, *Introduction to Environmental Analysis*, such as the projects under the Patrick Henry Specific Plan and in the Freedom Circle Focus Area, would add construction workers to the Project site and vicinity. In addition, construction of the Project could result in up to 400 onsite construction workers at any one time. However, as discussed in Section 3.12, *Population and Housing*, these 400 onsite construction workers associated with the Project and the construction workers associated with the cumulative projects would most likely be drawn from the existing and future labor market in the city and the county and included within the service population of the SCFD. Therefore, the cumulative projects and the Project would not result in a significant cumulative impact related to fire protection. Impacts would be ***less than significant***, and no mitigation would be necessary.

[39] Keyser Marston Associates. 2022. *Memorandum: Projected Population and Employment, Mission Point Project.* September 9, 2022.

Operation

Development in the city, which is the service area for the SCFD, would result in increased demand for fire and emergency services. The majority of the development would increase the intensity of a former land use or change the land use, which would result in an increase in demand for fire services. According to the City General Plan EIR, existing fire facilities would have the capacity to absorb the additional fire personnel required to accommodate planned growth.[40]

The adopted City General Plan does not consider development at the Project site. In addition, of the 21,774 units included in the closely related past, present, and reasonably foreseeable future projects listed in Table 3-2, Net and Total Cumulative Development, many of those projects were also not considered in the City General Plan. As such, unanticipated growth would place additional burdens on the SCFD and could result in the need for new facilities. Construction of new facilities could result in environmental impacts. As such, the construction of new facilities to serve future growth could result in a significant cumulative environmental impact.

The SCFD does not use a population-based staffing standard but, rather, bases its staffing on the ability to send trained and equipped personnel within the required response times. As discussed above, a Needs Assessment prepared for the Project determined that with the completion of Fire Station 10, which would be operational by the time the Project would be constructed, and additional staffing, there would be no need for new facilities to maintain service ratios.[41] The Project would also be built according to fire code standards, decreasing the likelihood of fire risk at the site. Because the Project, upon completion, would be close to a new fire station that would adequately serve the Project site, would not be located in a high-risk fire hazard zone, and would be constructed according to the most current fire code standards, the Project's operational contribution to cumulative fire protection impacts would not be cumulatively considerable. Therefore, the impact would be ***less than significant***.

Police Services

Construction

Construction of the cumulative projects described in Table 3-1 in Chapter 3, *Introduction to Environmental Analysis*, such as the projects under the Patrick Henry Specific Plan and in the Freedom Circle Focus Area, would add construction workers to the Project site and vicinity. In addition, construction of the Project could result in up to 400 onsite construction workers at any one time. However, as discussed in Section 3.12, *Population and Housing*, these 400 onsite construction workers associated with the Project and the construction workers associated with the cumulative projects would most likely be drawn from the existing and future labor market in the city and the county. Therefore, the construction workers would not increase the SCPD's existing service population in a way that would necessitate the expansion of SCPD facilities. Thus, the cumulative projects and the Project would not result in a significant cumulative impact related to police protection. Impacts would be ***less than significant***, and no mitigation would be necessary.

[40] City of Santa Clara. 2011. *City of Santa Clara Draft 2010–2035 General Plan: Integrated Final Environmental Impact Report*. January.

[41] PyroAnalysis. 2023. *Mission Point by Kylli Inc. – Fire Service Needs Assessment*. June 12, 2023.

Operation

Development in the city, which is the service area for the SCPD, would result in increased demand for police services. The majority of the development would increase the intensity of a former land use or change the land use, which would result in additional demand for police services. According to the City General Plan EIR, existing facilities would house the additional officers required to accommodate growth in the city.[42] However, as discussed above, the SCPD is currently understaffed, according to analysis from 2016. As such, unanticipated growth would place additional burdens on the SCPD that could result in the need for new facilities. The construction of new facilities could result in environmental impacts. As such, the construction of new facilities to serve future growth that was not anticipated in the City General Plan could result in a significant cumulative impact.

As discussed under Impact PS-2, although additional SCPD staff may be required, the Project on its own would not trigger the need for the construction of a new police facility or the expansion of the existing one.[43] In addition, the SCPD participates in a mutual aid agreement with the other law enforcement jurisdictions in Santa Clara County, which could provide services to the Project site, as needed. Furthermore, the Project alone would not result in any impacts to the SCPD's response time objectives. Therefore, although additional SCPD personnel may be required to respond to traffic-related and other calls stemming from population growth, the Project would not trigger the need for the construction of a new police facility, the construction of which would cause significant environmental impacts. The Project's operational contribution to a cumulative police services impact would not be considerable. Therefore, the impact would be ***less than significant***.

School Facilities

Construction

Construction of the cumulative projects described in Table 3-1 in Chapter 3, *Introduction to Environmental Analysis*, such as the projects under the Patrick Henry Specific Plan and in the Freedom Circle Focus Area, would add construction workers to the Project site and vicinity. In addition, construction of the Project could result in up to 400 onsite construction workers at any one time. However, as discussed in Section 3.12, *Population and Housing*, these 400 onsite construction workers for the Project and the construction workers associated with the cumulative projects would most likely be drawn from the existing and future labor market in the city and the county and would be included within the anticipated student population of the school district in which they reside. Therefore, the construction workers would not increase the SCUSD's existing student population in a way that would necessitate the expansion of SCUSD facilities. The cumulative projects and the Project would not result in a significant cumulative impact related to schools. Impacts would be ***less than significant***, and no mitigation would be necessary.

Operation

The geographic context for an analysis of cumulative school impacts is the area served by the SCUSD. Future housing projects in this area would generate additional students that would need to be accommodated within the school district. Other current projects would be reviewed on a case-by-case basis during their respective development. In addition, as previously discussed, Section 65996 of the State Government Code states that the payment of school impact fees, as established by SB 50, is deemed to constitute full and complete mitigation for school impacts. The SCUSD enacted development fees in

[42] Ibid.

[43] The current identified funding source for any additional police personnel or facilities is the City's General Fund.

accordance with the Leroy F. Greene School Facilities Act and levies the fees on development projects within its service area. Other projects would also be required to pay school impact fees, which are based on the amount of proposed residential and commercial space. This process, as well as the fee payment and SCUSD's Strategic Plan planning process discussed in the regulatory setting section above, would ensure that citywide growth would be reasonably accommodated within the cumulative context and the Project's operational contribution to cumulative impacts would not be considerable. Therefore, the impact would be ***less than significant***.

Parks and Recreational Facilities

Construction

Construction of the cumulative projects described in Table 3-1 in Chapter 3, *Introduction to Environmental Analysis*, such as the projects under the Patrick Henry Specific Plan and in the Freedom Circle Focus Area, would add construction workers to the Project site and vicinity. In addition, construction of the Project could result in up to 400 onsite construction workers at any one time. However, as discussed in Section 3.12, *Population and Housing*, these 400 onsite construction workers associated with the Project and construction workers associated with the cumulative projects would most likely be drawn from the existing and future labor market in the city. Therefore, the construction workers would not increase the existing service population of the Parks Department in a way that would necessitate the expansion of park facilities. Thus, the cumulative projects and the Project would not result in a significant cumulative impact related to parks. Impacts would be ***less than significant***, and no mitigation would be necessary.

Operation

Santa Clara City Code Chapter 17.35 requires new residential developments to provide adequate developed park and recreational land and/or pay a fee in lieu of parkland dedication, at the discretion of the City, pursuant to the Quimby Act and/or the MFA, to mitigate the impacts of residential development and the growth from new city residents. With regard to neighborhood parks, the City is meeting the standard of 3 acres per 1,000 residents under the Quimby Act provisions of City Code and 2.6 acres per 1,000 residents under the MFA provisions of City Code. Compliance with the code would ensure that development projects would provide adequate park and recreational facilities or contribute a fee to meet the demand for recreational space generated by the projects. Therefore, the development projects would not increase the use of existing neighborhood parks such that physical deterioration of park facilities and overcrowding would occur or be accelerated. Therefore, the current development would not be expected to result in a significant cumulative impact related to parks and recreation. With the provision of adequate park and recreational land within the Project site and/or payment of a fee in lieu of dedication, the Project's operational contribution to cumulative impacts would not be considerable. The impact would be ***less than significant***.

Library Facilities

Construction

Construction of the cumulative projects described in Table 3-1 in Chapter 3, *Introduction to Environmental Analysis*, such as the projects under the Patrick Henry Specific Plan and in the Freedom Circle Focus Area, would add construction workers to the Project site and vicinity. In addition, construction of the Project could result in up to 400 onsite construction workers at any one time. However, as discussed in Section 3.12, *Population and Housing*, these 400 onsite construction workers associated with the Project and the construction workers associated with the cumulative projects would most likely be drawn from

the existing and future labor market in the city and the county and would not put an additional strain on library services that would require the rehabilitation of existing facilities or the construction of new library facilities. Furthermore, the construction workers are not included in the estimates for library services. Therefore, the cumulative projects and the Project would not result in a significant cumulative impact related to library facilities. Impacts would be ***less than significant***, and no mitigation would be necessary.

Operation

Development in this service area would place additional demand on library services. According to the City General Plan EIR, future growth in the city may require additional library facilities.[44] Other current development in combination with ambient growth would, without the construction of new libraries or expansion of existing libraries, reduce the amount of library square footage per capita. As such, future cumulative development would place additional burdens on the City's library facilities, which could result in the need for new facilities. The construction of new facilities could result in environmental impacts. As such, the construction of new facilities to serve future cumulative development could result in a significant environmental impact.

The adopted City General Plan does not consider development at the Project site. As discussed above, Association of Bay Area Governments projections for Santa Clara projected a population of 151,715 in 2035. The addition of the 3,870 residents generated by the Project would result in a population of 155,585, which would result in 0.67 square foot of library space per capita, still above the 0.3 square foot per capita APA suggests as the minimum for a city of this size. Therefore, the Project would not substantially contribute to the need for a new library facility, the construction of which could cause significant environmental impacts. Therefore, operation of the Project would not result in a cumulatively considerable impact related to library services. This impact would be ***less than significant***.

[44] Ibid.

3.14 Tribal Cultural Resources

This section describes the existing environment for tribal cultural resources within and around the Mission Point Project (Project) site and evaluates the potential for impacts related to tribal cultural resources to occur as a result of development of the Project. Section 3.7, *Cultural Resources*, addresses impacts on built-environment and archaeological/historical cultural resources. The term *tribal cultural resources* refers to sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either included in or determined eligible for inclusion in the California Register of Historical Resources (CRHR) or included in a qualifying local register of historic and other resources that have been determined by a lead agency to be significant pursuant to the criteria for listing in the CRHR. Included in this section are brief descriptions of the ethnographic and contemporary Native American setting of the Project site.

This section relies on information from consultation between the City of Santa Clara (City) and culturally affiliated California Native American tribes.

Comments pertaining to tribal cultural resources were received in response to the Notice of Preparation (NOP) (Appendix 1). One comment letter was received from the Native American Heritage Commission (NAHC) pertaining to Native American consultation pursuant to Assembly Bill (AB) 52 and Senate Bill (SB) 18.

Existing Conditions

Regulatory Setting

State

Public Resources Codes: Tribal Cultural Resources/Assembly Bill 52/Section 21082.3(c) and State CEQA Guidelines Section 15120(d)

The California Environmental Quality Act (CEQA) defines a "tribal cultural resource" as any one of the following (Public Resources Code [PRC] Section 21074):

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either (1) included in or eligible for inclusion in the CRHR or (2) included in a local register of historical resources.
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. The lead agency shall consider the significance of the resource to a California Native American tribe.
- A cultural landscape that meets the requirements listed above and is geographically defined in size and scope.

Archaeological sites, including those that qualify as historical resources (PRC Section 21084.1), unique archaeological resources (PRC Section 21083.2[g]), and non-unique archaeological resources (PRC Section 21083.2[h]), may qualify as tribal cultural resources.

PRC Section 21080.3.1 requires that local agencies formally consult with recognized California Native American tribes during the CEQA process to discuss potential impacts on tribal cultural resources. Prior to the release of a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report, an agency must initiate consultation with tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if (1) a tribe requests, in writing, to be informed by an agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe and (2) the tribe responds, in writing, within 30 days of receipt of formal notification of a proposed project and requests consultation with an agency (PRC Section 21080.3.1[b]).

The California Office of Planning and Research's *Tribal Consultation Guidelines* define consultation as "a process in which both the tribe and local government invest time and effort into seeking a mutually agreeable resolution for the purpose of preserving or mitigating impacts to a cultural place, where feasible."[1] Consultation is concluded when the agency and tribe(s) agree to measures to mitigate or avoid significant effects on a tribal cultural resource or when either party concludes that mutual agreement cannot be reached after a good-faith and reasonable effort (PRC Section 21080.3.2[b]).

CEQA and the State CEQA Guidelines prohibit lead agencies from including any information from a California Native American tribe about tribal cultural resources (e.g., the location) in an environmental document or otherwise disclosing it without prior consent from the tribe that provided the information (PRC Section 21082.3[c] and State CEQA Guidelines Section 15120[d]). Similarly, lead agencies are required to protect the confidentiality of information concerning the identity, location, character, and use of places, features, and objects that are the subject of SB 18 consultation (California Government Code Section 65342.3[b]). In addition, the California Public Records Act authorizes agencies to exclude from public disclosure archaeological site information; records of Native American graves, cemeteries, and sacred places; and records of Native American places, features, and objects (California Government Code Sections 7927.000 and 7927.005.) Furthermore, California's open meeting laws (The Brown Act, California Government Code Section 54950 et seq.) protect the confidentiality of Native American cultural place information.

Senate Bill 18

The intent of SB 18, which came into effect in 2005, is to aid in the protection of traditional tribal cultural places through local land use planning and by requiring city and county governments to consult with California Native American tribes on projects that include the adoption or amendment of general plans (defined in Government Code Section 65300 et seq.) or specific plans (defined in Government Code Section 65450 et seq.). SB 18 requires local governments to consult with tribes prior to making certain planning decisions and provide notice to tribes at certain key points in the planning process.

Health and Safety Code Section 7050.5: Human Remains

In the event of discovery or recognition of human remains at any location other than a dedicated cemetery, California Health and Safety Code Section 7050.5 states that there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie the remains until the coroner of the county in which the remains were discovered has determined whether the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the NAHC within 24 hours of identification.

[1] California Office of Planning and Research. 2005. *Tribal Consultation Guidelines: Supplement to General Plan Guidelines.* Page 15. Available: https://opr.ca.gov/docs/011414_Updated_Guidelines_922.pdf.

Public Resources Code Section 5097.98: Notification of Most Likely Descendant

According to PRC Section 5097.98, upon notification of the discovery of Native American human remains, the NAHC shall immediately notify the Most Likely Descendant (MLD) of the deceased, pursuant to Health and Safety Code Section 7050.5. With permission of the landowner or a designated representative, the MLD may inspect the remains and any associated cultural materials and make recommendations for treatment or disposition of the remains and associated grave goods. The MLD shall provide recommendations or preferences for treatment of the remains and associated cultural materials within 48 hours of being granted access to the site.

California Native American Graves Protection and Repatriation Act (Health and Safety Code Section 8010 et seq.)

The California Native American Graves Protection and Repatriation Act establishes a repatriation policy consistent with the federal Native American Graves Protection and Repatriation Act. The act strives to ensure that all California Native American human remains and cultural items are treated with dignity and respect and asserts an intent for the State of California (State) to provide mechanisms for aiding California Native American tribes, including non-federally recognized tribes, in repatriating remains and cultural items.

Local

City of Santa Clara 2010–2035 General Plan

The City of Santa Clara 2010–2035 General Plan (General Plan) contains goals and policies related to the preservation of tribal cultural resources. General Plan policies relevant to the Project are as follows:

- *Policy 5.6.3-P3*: Consult with California Native American tribes prior to considering amendments to the City General Plan.
- *Policy 5.6.3-P6*: In the event that human remains are discovered, work with the appropriate Native American representative and follow the procedures set forth in State law.

Environmental Setting

The setting for the Project considers existing conditions within the study area as well as relevant historical conditions. The study area for tribal cultural resources comprises the main Project site.

Ethnographic Setting

The Project site is situated within the ancestral territory of the Costanoan, commonly referred to as the Ohlone. Ohlone territory consisted of the area from the southern edge of the Carquinez Strait to a portion of the Big Sur and Salinas Rivers south of Monterey Bay as well as an area approximately 50 miles inland from the coast.[2]

Ohlone is a sub-family of the Utian language group, which includes the Miwokan languages spoken by tribes in the North Bay, Clear Lake Basin, and the Consumnes, Mokelumne, and lower Sacramento River

[2] Levy, Richard. 1978. Costanoan. In *Handbook of North American Indians,* Volume 8: California, pp. 485–499. R.F. Heizer (ed.), Smithsonian Institution, Washington, D.C.

drainages of the Central Valley and western Sierra foothills. In the San Francisco Bay Area, linguists have identified six Ohlone languages with three dialects.[3]

The Ohlone lived in village communities around San Francisco Bay for thousands of years. These were autonomous political units that occupied a distinct territory.[4] Village communities generally consisted of one main village that was occupied year-round and a series of smaller hamlets with resource gathering and processing locations that were occupied intermittently or seasonally. The tribal population within each territory was between 50 and 500 and largely determined by the carrying capacity of the community's territory.

Acorns gathered from different oak species were a staple of the Ohlone diet, as were nuts from the buckeye tree; hazelnuts; grassland and plant seeds from buttercup, chia, redmaids, tarweed, and grey pine; wild strawberries, elderberries, and madrone berries; and wild grapes. Hunting and gathering within the numerous creeks and along the shore supplemented the diet.[5] Groups with access to bay and estuarine resources caught shellfish, waterfowl, salmon, sturgeon, and lamprey eels. Larger terrestrial mammals (e.g., grizzly bear, Roosevelt elk, black tailed deer) were hunted with bow and arrow, while communal drives and nets were used to capture smaller game (e.g., rabbits, mice, rats). Larger mammals, in addition to being a food source, had ceremonial and religious importance, as demonstrated in the archaeological record (e.g., ceremonial burials of elk, coyotes, wolves, and bears).[6]

Seven Spanish missions were founded in Ohlone territory from 1776 to 1797. The mission closest to the Project site was Mission Santa Clara de Asis, also known as the Murguiá Mission (named after Father José Murguiá, who directed its construction). This former mission was located approximately 6 miles south of the Project site, within Santa Clara. Construction of the mission complex began in 1781 but was abandoned after 1818 because of structural damage sustained as a result of an earthquake. Between 1781 and 1818, the mission complex expanded to include not only the church and associated quadrangle but also adobe granaries, corrals, houses, agricultural fields, and orchards. Additional residences continued to be constructed after 1818, although, by that time, much of the complex was not in use. From 1822 to 1825, Murguiá Mission was dismantled as materials were used in the construction of a fourth mission. Neophyte houses gradually disintegrated from neglect as the indigenous population of the so-called Rancheria dwindled. By 1839, some of the remaining houses were occupied by Mexican citizens.

Mission life was devastating to the Ohlone population. It has been estimated that when the first mission was established in Ohlone territory in 1776, the Ohlone population was approximately 10,000. By 1832, the Ohlone population less than 2,000 as a result of introduced disease, harsh living conditions, and reduced birth rates.

Under the Mexican government, secularization of mission lands, including the Murguiá Mission, began in the early 1830s. The indigenous population scattered to areas away from the mission centers, and most

[3] Milliken, Randall. 2009. *Ohlone/Costanoan Indians of the San Francisco Peninsula and their Neighbors, Yesterday and Today*. Archaeological and Historical Consultants, Oakland, CA.

[4] Kroeber, Alfred L. 1955. Nature of the Land-Holding Group. In *Ethnohistory* 2:303–314.

[5] Levy, Richard. 1978. Costanoan. In *Handbook of North American Indians,* Volume 8: California, pp. 485–499. R.F. Heizer (ed.), Smithsonian Institution, Washington, D.C.; Margolin, Malcolm. 1978. *The Ohlone Way: Indian Life in the San Francisco-Monterey Bay Area.* Heyday Books, Berkeley, CA.

[6] Cambra, Rosemary, Alan Leventhal, Laura Jones, Julia Hammett, Les Field, and Norma Sanchez. 1996. Archaeological Investigations at Kaphan Umux (Three Wolves) Site, CA-SCL-732: A Middle Period Prehistoric Cemetery on Coyote Creek in Southern San José, Santa Clara County, California. Ohlone Families Consulting Services, San José; Pastron, Allen G., and Viviana Bellifemine (eds.). 1999. Archaeological Investigations at CA-SCL-674: The Rubino Site, City of San José, Santa Clara County, California. Final report. Volume I. Coyote Press, Salinas, CA.

of the former mission land was divided among loyal Mexican subjects. During the next few decades, there was a partial return to indigenous religious practices and food collection as a means of subsistence. Consequently, several multiethnic Indian communities were established in the mid-nineteenth century within Ohlone territory.

Ohlone recognition and assertion began to move to the forefront during the early twentieth century. This was enforced by two legal suits brought against the U.S. government by Indians of California (1928–1964) for reparation due them for the loss of traditional lands. Although they have yet to receive formal recognition from the federal government, the Ohlone have developed an active interest in preserving their ancestral heritage and maintaining their traditions, along with advocating for Native American issues.

Consultation Outreach

2019

To identify areas within the Project site that may be considered sensitive by local tribal groups, the NAHC, a State agency that maintains the Sacred Lands File, an official list of sites that are of cultural and religious importance to California Native American tribes, was contacted on July 24, 2019, with a request for a search of the Sacred Lands File and a list of tribal representatives who might have interest in or information regarding the Project site. The NAHC responded on July 31, 2019, with a negative result from the Sacred Lands File search; however, the NAHC provided a list of seven tribal representatives. Letters containing details about the Project and a location map were sent to the seven representatives from the following six tribal groups:

- Amah Mutsun Tribal Band
- Amah Mutsun Tribal Band of Mission San Juan Bautista
- Indian Canyon Mutsun Band of Costanoan
- Muwekma Ohlone Indian Tribe of the San Francisco Bay Area
- Northern Valley Yokuts Tribe
- The Ohlone Indian Tribe

Follow-up phones calls were made to all seven representatives on August 29, 2019. The Amah Mutsun Tribal Band of Mission San Juan Bautista and The Ohlone Indian Tribe recommended cultural resources sensitivity training for all construction crews involved in ground disturbance and implementation of stop-work procedures.

2022

On April 7, 2022, the City received an updated tribal consultation list from the NAHC for Santa Clara County, with 11 tribal representatives from eight tribal groups and their contact information. On October 19, 2022, letters were sent to each of the 11 contacts on the list provided by the NAHC, informing them of updates to the Project and formally inviting them to consult pursuant to PRC Section 21080.3.1 (i.e., AB 52), PRC Section 21084.3, and Government Code Section 65352.3 (i.e., SB 18). The contacts represent the following tribal groups:

- Amah Mutsun Tribal Band
- Amah Mutsun Tribal Band of Mission San Juan Bautista

- Indian Canyon Mutsun Band of Costanoan
- Muwekma Ohlone Indian Tribe of the San Francisco Bay Area
- Northern Valley Yokuts Tribe
- Tamien Nation
- The Ohlone Indian Tribe
- Wuksache Indian Tribe/Eshom Valley Band

As of February 2023, no responses to the 2022 letters had been received from the tribal contacts listed above. The City has agreed to the recommended mitigation proposed in 2019, which consisted of cultural resources sensitivity training for all construction crews involved in ground disturbance. Because there were no responses to the 2022 outreach, the City has determined that the consultation process is concluded, pursuant to PRC Section 21080.3.1(i.e., AB 52), PRC Section 21084.3, and Government Code Section 65352.3 (i.e., SB 18).

Environmental Impacts

This section describes the impact analysis related to tribal cultural resources for the Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

Thresholds of Significance

The Project would have a significant effect if it would result in any of the conditions listed below.

- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC 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 that is:
    a) Listed or eligible for listing in the CRHR or in a local register of historical resources, as defined in PRC Section 5020.1(k), or
    b) 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 PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. (TCR-1 and C-TCR-1)

Methods for Analysis

The following section analyzes potential impacts on tribal cultural resources that may be caused by the Project. In accordance with PRC Section 21084.2, the analysis considers the potential for Project activities to cause a substantial adverse change in the significance of a tribal cultural resource. To assess the Project's potential to create a significant adverse change in tribal cultural resources, the City considered information provided by tribal representatives from consulting tribes in 2019 as well as the analysis provided in Section 3.7, *Cultural Resources*.

Impacts and Mitigation Measures

Impact TCR-1: Tribal Cultural Resources. With implementation of mitigation, the Project would not cause a substantial adverse change in the significance of a tribal cultural resource that is a) listed or eligible for listing in the CRHR or in a local register of historical resources, as defined in PRC Section 5020.1(k), or b) determined by the lead agency to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. (Less than Significant with Mitigation)

Construction

The results of the Northwest Information Center records search and literature review conducted in 2019 and 2022, as described in Section 3.7, *Cultural Resources*, indicate no previously recorded cultural resources within or adjacent to the Project site. This includes tribal cultural resources listed or eligible for listing in the CRHR or a local register of historical resources. In addition, no tribal cultural resources were identified during the 2019 and 2022 consultation outreach by the City. However, as discussed in Section 3.7, archaeological deposits that qualify as tribal cultural resources could be encountered during Project excavation. Such resources would be eligible for listing in the CRHR or a local register of historical resources, or the lead agency, in its discretion and supported by substantial evidence, could determine the resources to be significant pursuant to the criteria set forth in subdivision (c) of PRC Section 5024.1. Should deposits be encountered during Project excavation, this could result in an adverse change to a tribal cultural resource. Thus, ***significant*** impacts related to tribal cultural resources could result from construction of the Project.

Implementation of Mitigation Measures CUL-2.1, CUL-2.2 and CUL-2.3, described in Section 3.7, *Cultural Resources*, would ensure that impacts related to any tribal cultural resources that may be uncovered at the site would be ***less than significant with mitigation*** through development and implementation of an archaeological monitoring plan, implementation of cultural resources sensitivity training (including training regarding sensitivity to tribal cultural resources) for all construction crews participating in ground-disturbing activities, and requirements to stop work if archaeological deposits are encountered during ground-disturbing activities.

Operation

Project operation would not result in an adverse change in a tribal cultural resource. Any impact on tribal cultural resources would occur during Project construction, as discussed above. Thus, ***no impact*** related to tribal cultural resources could result from operation of the Project.

Cumulative Impacts

This section evaluates cumulative impacts on tribal cultural resources. The geographic context for the analysis of cumulative impacts associated with tribal cultural resources is the immediate vicinity of the project area. Cumulative impacts are addressed only for those thresholds that would result in a Project-related impact, whether it be less than significant, significant, or significant and unavoidable. If the Project would result in no impact with respect to a particular threshold, it would not contribute to a cumulative impact. Therefore, no analysis would be required for that impact.

Impact C-TCR-1: Cumulative Impacts on Tribal Cultural Resources. The Project, in combination with other foreseeable development in the vicinity, could result in impacts on tribal cultural resources, but such impacts would be adequately addressed by mitigation. (Less than Significant with Mitigation)

Construction

Urban development that has occurred over the past several decades in the vicinity of the Project site has resulted in the demolition or alteration of non-archaeological and archaeological resources that may qualify as tribal cultural resources under CEQA. It is reasonable to assume that present and future development will continue to result in impacts on these resources by disturbing native soils and altering the landscape. Because tribal cultural resources are unique and non-renewable members of finite classes, all adverse effects or negative impacts erode a dwindling resource base. Federal, State, and local laws protect tribal cultural resources in most instances. Even so, it is not always feasible to protect tribal cultural resources, particularly when preservation in place could prevent implementation of certain projects. For this reason, the cumulative effects of development in the region on tribal cultural resources are considered significant.

Because the Project site is situated in an archeologically sensitive area, the possibility exists of encountering unknown tribal cultural resources during ground-disturbing activities associated with Project construction. Therefore, the Project could contribute to a cumulative loss of tribal cultural resources, and the Project's cumulative impact prior to the application of mitigation measures could be considerable. However, the Project would be subject to Mitigation Measures CUL-2.1, CUL-2.2, and CUL-2.3, which require implementation of an archaeological monitoring plan, cultural resources sensitivity training (including training regarding sensitivity to tribal cultural resources) for all construction crews participating in ground-disturbing activities, and stopping work if archaeological deposits are encountered during ground-disturbing activities. Compliance with these mitigation measures would reduce the Project's contribution to a cumulative impact to less than cumulatively considerable, resulting in a cumulative impact that would be ***less than significant with mitigation***.

Operation

Cumulative impacts on tribal cultural resources would not occur during operation of cumulative projects or the Project. Any impact on tribal cultural resources would occur during construction, as discussed above. Thus, ***no impact*** related to tribal cultural resources could result from operation under cumulative conditions.

3.15 Utilities and Service Systems

This section describes existing utilities and service systems that serve the site for the Mission Point Project (Project) and vicinity. It also evaluates the potential for impacts on utilities and service systems that would result from development of the Project. The utilities and service systems addressed in this section involve water supply, wastewater, and solid waste. Energy impacts related to electricity and natural gas are discussed further in Section 3.5, *Energy.* The analysis is based on the City of Santa Clara (City) 2010–2035 General Plan (General Plan), the San Francisco Public Utilities Commission's (SFPUC) and the City's 2020 Urban Water Management Plans (UWMPs), the South Bay Water Recycling Strategic and Master Planning Report, and the following documents, all of which are on file with the City: Storm Drainage Study,[1] Water Supply Assessment (Appendix 3.15),[2] and Sanitary Sewer Capacity Technical Memorandum.[3]

Comments pertaining to utilities and service systems were received in response to the Notice of Preparation (NOP) (Appendix 1). Issues identified in response to the NOP were considered in preparing this analysis and summarized below:

- Potential Project interference with SFPUC Bay Division Pipelines #3 and #4, which are within an 80-foot-wide parcel owned in fee by SFPUC, conveying water from the Hetch Hetchy system. SFPUC requested a review of all proposed activities that would occur within its fee-owned land, including improvements to the Hetch Hetchy right-of-way (ROW), such as landscaping and the installation of a multi-use path and parking access points. SFPUC also requested avoidance of SFPUC property.
- Sanitary sewer and wastewater treatment facility capacity at the San José-Santa Clara Regional Wastewater Facility (RWF).
- Project-generated water demand. The Santa Clara Valley Water District (Valley Water) requested verification that adequate water supplies would be available following Project implementation as well as implementation of other nearby development projects.

Existing Conditions

Regulatory Setting

State

California Porter-Cologne Water Quality Control Act

As described in Section 3.10, *Hydrology and Water Quality,* under California's Porter-Cologne Water Quality Control Act, passed in 1969 and amended in 2013, the State Water Resources Control Board (SWRCB) has authority over the State of California's (State's) water rights and water quality policy. The act divides California into nine regional basins, each of which is under the jurisdiction of a Regional Water Quality Control Board (RWQCB) that oversees water quality on a day-to-day basis at the local and regional level. Specifically, RWQCBs oversee several water quality functions in their respective regions. RWQCBs

[1] BFK. 2019. *Mission Point Project, Storm Drainage Study*. July.

[2] City of Santa Clara Water and Sewer Utilities Department. 2023. *Mission Point Project, 3005 Democracy Way Water Supply Assessment.* Appendix 3.15. April.

[3] City of Santa Clara Water and Sewer Utilities Department. 2023. *Sanitary Sewer Capacity Evaluation*. June 7.

regulate all pollutant or nuisance discharges that may affect either surface water or groundwater. Santa Clara is under the jurisdiction of the San Francisco Bay RWQCB.

The San Francisco Bay-Delta Water Quality Control Plan

The SWRCB adopted an amendment to the San Francisco Bay-Delta (Bay-Delta) Water Quality Control Plan on December 12, 2018. The plan establishes water quality objectives that protect water uses in the Bay-Delta watershed, including uses pertaining to drinking water, irrigation, and fish and wildlife habitat. The Bay-Delta Plan Amendment requires the release of 40 percent of the "unimpaired flow" from the Lower San Joaquin River's three salmon-bearing tributaries, the Stanislaus, Tuolumne, and Merced Rivers, from February through June during every year type, whether wet, normal, dry, or critically dry, and requires a program for implementation. The new flow objectives recognize the vital role upstream flows provide for habitat as well as the migration of threatened and endangered fish. The revised salinity objectives reflect updated scientific information about suitable salt levels for agriculture in the southern delta. The reliability of the SFPUC Regional Water System (RWS) is highly dependent on an assumption as to whether or not the 2018 Bay-Delta Plan Amendment will be implemented. According to SFPUC, should the Bay-Delta Plan Amendment be implemented, significant supply shortfalls would be projected in dry years for agencies that receive water supplies from the SFPUC RWS, along with other agencies whose water supplies would also be affected by the amendment.

SFPUC is currently implementing its Alternative Water Supply Planning Program to investigate and plan for new water supplies as well as address future long-term water supply reliability challenges and vulnerabilities on the RWS. As of June 2021, SFPUC is pursuing several strategies to uphold its supply agreements, including strategies involving voluntary agreements, drought planning, alternative water supplies, and litigation.

Senate Bills 610 and 221

California Senate Bill (SB) 610 and SB 221 amended State law, effective January 1, 2002, to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 and SB 221 were companion measures that sought to promote more collaborative planning between local water suppliers and cities and counties. Both statutes require detailed information regarding water availability. This information would be provided to City and county decision-makers prior to approval of specified large development projects to ensure that prudent water supply planning has been conducted and that planned water supplies will be adequate with respect to meeting existing demands, anticipated demands from approved projects and tentative maps, and the demands of proposed projects.

SB 610 amended California Water Code Sections 10910 through 10915 (inclusive) to require land use lead agencies to, in certain instances:

- Identify any public water purveyor that may supply water for a proposed development project and
- Request a water supply assessment (WSA) from the identified water purveyor.

The purpose of the WSA is to demonstrate the adequacy of the purveyor's water supplies with respect to satisfying the water demands of proposed projects that exceed a certain size and are subject to review under the California Environmental Quality Act (CEQA) while still meeting the demands of the water purveyor's existing and planned future uses. Projects requiring a WSA include the following: (1) a proposed residential development with more than 500 dwelling units; (2) a proposed shopping center or business employing more than 1,000 persons or having more than 500,000 square feet of floor space; (3)

a proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space; (4) a proposed hotel or motel, or both, having more than 500 rooms; (5) a proposed industrial, manufacturing, or processing plant or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area; (6) a mixed-use project that includes one or more of the projects specified in this subdivision; and (7) a project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling-unit project. California Water Code Sections 10910 through 10915 delineate the specific information that must be included in the WSA.

SB 221 amended State law (California Government Code Section 66473.7) to require affirmative written verification of an adequate water supply prior to approval by a city or county of certain residential subdivisions. SB 221 was intended to be a fail-safe mechanism, ensuring collaboration in finding needed water supplies before construction begins.

The WSA prepared for the Project, included in Appendix 3.15, complies with SB 610 (California Water Code Sections 10910 through 10915) and SB 221. The Project includes a residential subdivision with more than 500 units; therefore, the SB 221 requirements apply to the Project.

Urban Water Management Planning Act

Through the Urban Water Management Planning Act of 1983, the California Water Code requires all urban water suppliers within California to prepare and adopt an UWMP and update it every 5 years. This requirement applies to all suppliers that provide water to more than 3,000 customers or supply more than 3,000 acre-feet (af) of water annually. The act is intended to support the conservation and efficient use of urban water supplies. It requires a comparison between a project's water use and water supply sources for the next 20 years, in 5-year increments; planning for single and multiple dry years; and a water recycling analysis with a description of the wastewater collection and treatment system within the agency's service area and the current and potential recycled water uses. In September 2014, the act was amended by SB 1420 to require urban water suppliers to provide descriptions of their water demand management measures and other similar information. The SFPUC 2020 UWMP, adopted in June 2021, extends to a 2045 horizon year and analyzes two supply scenarios, one with the Bay-Delta Plan Amendment, assuming implementation starting in 2023, and one without the Bay-Delta Plan Amendment. Results of these analyses are summarized as follows:

- If the Bay-Delta Plan Amendment is implemented, SFPUC would be able to meet its contractual obligations to its wholesale customers, as presented in the SFPUC 2020 UWMP, in normal years but would experience significant supply shortages in dry years. In single dry years, supply shortages would range from 36 to 46 percent. In multiple dry years, supply shortages would range from 36 to 54 percent. Implementation of the Bay-Delta Plan Amendment would require rationing in all single dry and multiple dry years through 2045.
- If the Bay-Delta Plan Amendment is not implemented, SFPUC would be able to meet 100 percent of the demand from projected purchases by its wholesale customers during all year types through 2045, except during the fourth and fifth consecutive dry year for base year 2045 when 15 percent wholesale supply shortages are projected.

The City of Santa Clara's 2020 UWMP was adopted on June 22, 2021. This document updated information in the City's 2015 UWMP. The UWMP provides an overview of the City's current and long-term water supplies, future water needs of the City, and the City's water conservation programs.[4]

Sustainable Groundwater Management Act

Refer to Section 3.10, *Hydrology and Water Quality*, of this environmental impact report (EIR), for a discussion of the Sustainable Groundwater Management Act of 2014.

2009 Water Conservation Act

The Water Conservation Act of 2009, SB X7-7, requires all water suppliers to increase water use efficiency. The legislation set an overall goal of reducing per capita water use by 20 percent by 2020, with an interim goal of 10 percent by 2015. Effective in 2016, urban retail water suppliers that did not meet the water conservation requirements established by this bill were not eligible for State water grants or loans. SB X7-7 requires urban retail water suppliers to determine baseline water use and set reduction targets according to specified standards.

CALGreen Building Code

On July 17, 2008, the California Building Standards Commission adopted the nation's first "green" building standards. The California Green Building Standards Code (Part 11, Title 24, known as "CALGreen") was adopted as part of the California Building Standards Code (Title 24, California Code of Regulations [CCR]). It applied to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure, unless otherwise indicated in the code, throughout California. CALGreen established planning and design standards for sustainable site development, including water conservation measures and requirements for new buildings to reduce water consumption by 20 percent. The mandatory provisions of CALGreen became effective January 1, 2011. The building efficiency standards are enforced through the local building permit process. The purpose of CALGreen is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through building concepts with either a reduced negative impact or a positive environmental impact and the encouragement of sustainable construction practices in the following categories:

- Planning and design,
- Energy efficiency,
- Water efficiency and conservation,
- Material conservation and resource efficiency, and
- Environmental quality.

The current Building Energy Efficiency Standards were adopted in August 2021 and took effect on January 1, 2023. Under the current standards, all new homes are required to be electric-ready homes, which means that buildings with gas stoves will have the electrical panels and wiring needed to support a switch to electric stoves. Later standards are expected to require zero net energy for certain uses, including new commercial uses.

[4] City of Santa Clara. 2020. *Urban Water Management Plan Update*. Available: https://www.santaclaraca.gov/our-city/departments-g-z/water-sewer-utilities/water-utility/urban-water-management-plan. Accessed: March 16, 2022.

The California Plumbing Code

The California Plumbing Code (Part 5, Title 24, CCR) was adopted as part of the California Building Standards Code to prevent disorder in the industry as a result of widely divergent plumbing practices and the use of many different, and often conflicting, plumbing codes by local jurisdictions. Among the many topics covered in the code were water fixtures, potable and non-potable water systems, and recycled water systems. According to the code, water supply and distribution practices shall comply with all applicable provisions of the current edition of the California Plumbing Code.

Executive Orders N-10-21 (July 8, 2021), N-7-22 (March 28, 2022), and N-3-23 (February 13, 2023)

On July 8, 2021, California Governor Gavin Newsom issued Executive Order N-10-21, which proclaimed a state of emergency due to drought conditions in nine counties, Inyo, Marin, Mono, Monterey, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, and Santa Cruz. It directs State agencies to take actions to bolster drought resilience and prepare for impacts on communities, businesses, and ecosystems. The order calls on all Californians to reduce their water use voluntarily by 15 percent from their 2020 levels.[5,] The order was subsequently updated twice but contains essentially the same water conservation requirements as the initial executive order.[6]

State Water Resources Control Board General Waste Discharge Requirement

On May 2, 2006, the SWRCB adopted a General Waste Discharge Requirement (Order No. 2006-0003) for all publicly owned sanitary sewer collection systems in California with more than 1 mile of sewer pipe. The order provides a consistent statewide approach to reducing sanitary sewer overflows by requiring public sewer system operators to take all feasible steps to control the volume of waste discharged into the system, prevent sanitary sewer waste from entering the storm sewer system, and develop a Sanitary Sewer Master Plan. The General Waste Discharge Requirement requires storm sewer overflows to be reported to the SWRCB with use of an online reporting system. The SWRCB has delegated enforcement authority to the nine RWQCBs. The San Francisco Bay RWQCB issues and enforces National Pollutant Discharge Elimination System (NPDES) permits applicable to the West Bay Sanitary District (WBSD) wastewater collection system in Santa Clara and the Silicon Valley Clean Water (SVCW) Wastewater Treatment Plant (WWTP) in Redwood City.

State Water Resources Control Board Drought Emergency Regulations

On January 4, 2022, the SWRCB adopted emergency regulations, prohibiting certain wasteful water-use practices, such as irrigating in ways that cause more than incidental runoff, washing vehicles without an automatic shutoff valve, irrigating turf and ornamental landscaping within 48 hours of measurable rainfall, and washing impervious areas, unless necessary to address an immediate health and safety need. These regulations became effective January 18, 2022.

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5 State of California. 2021. *Executive Order N-10-21*. Available: https://www.gov.ca.gov/wp-content/uploads/2021/07/Conservation-EO-N-10-21.pdf. Accessed: August 24, 2023.

6 State of California. 2023. *Executive Order N-10-21*. Available: https://www.gov.ca.gov/wp-content/uploads/2023/02/Feb-13-2023-Executive-Order.pdf?emrc=b12708. Accessed: August 24, 2023. (Governor Newsom directed that the provisions made in Executive Orders N-10-21 and N-7-22 remain in full effect, except for minor changes.)

Sanitary District Act of 1923

The Sanitary District Act of 1923 (Health and Safety Code Section 6400 et seq.) authorizes the formation of sanitation districts. It also authorizes the districts to construct, operate, and maintain facilities for the collection, treatment, and disposal of wastewater. The act was amended in 1949 to allow the districts to provide solid waste management and disposal services, including refuse transfer and resource recovery.

Senate Bill 1383

SB 1383 requires the California Air Resources Board (CARB) to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants (SLCPs), such as methane (CH_4), hydrofluorocarbons, and anthropogenic black carbon (soot). SLCPs are greenhouse gases (GHGs) that degrade in the atmosphere at a faster rate than carbon dioxide (CO_2) and are considered to be responsible for 40 percent of current net climate-changing emissions. The strategy includes a target that would reduce CH_4 emissions to 40 percent below 2013 levels by 2030, including those from livestock management operations. This bill also requires the California Department of Resources Recycling and Recovery (CalRecycle) and CARB to adopt regulations that would achieve specific targets to reduce organic waste in landfills. The Final SLCP Reduction Strategy, approved by CARB in March 2017, includes recommendations to reduce CH_4 emissions from a variety of sources, including refrigerants and fumigants.[7] As it pertains to CalRecycle, SB 1383 established targets that called for a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. In addition, SB 1383 granted CalRecycle the regulatory authority required to achieve the targets. SB 1383 also established an additional waste reduction target that calls for not less than 20 percent of currently disposed of edible food to be recovered for human consumption by 2025. The Office of Administrative Law approved CalRecycle's regulations to reduce SLCPs from organic waste in November 2020. The regulations became effective in January 2022.

Assembly Bill 939 and Senate Bill 1016

The California Integrated Waste Management Act of 1989, or Assembly Bill (AB) 939, established the Integrated Waste Management Board, required the implementation of integrated waste management plans, and mandated that local jurisdictions divert at least 50 percent of all solid waste (from 1990 levels), beginning January 1, 2000, and at least 75 percent by 2010. In 2006, SB 1016 updated the requirements. The new per capita disposal and goal measurement system moves the emphasis from an estimated diversion measurement number to an actual disposal measurement number, along with an evaluation of program implementation efforts. These two factors will help determine each jurisdiction's progress toward achieving AB 939 diversion goals. The 50 percent diversion requirement is now measured in terms of per capita disposal, expressed as pounds per day. Under the SB 1016 measurement system, a city is required to annually dispose of an amount equal to or less than its "50 percent equivalent per capita disposal target," as calculated by CalRecycle.

Assembly Bill 1826

AB 1826 requires State agencies, businesses, and multi-family complexes that generate specific quantities of organic or solid waste each week to enroll in organic recycling programs through an applicable solid waste disposal company. AB 1826 defines organic waste as food waste, green waste, landscape and pruning waste, non-hazardous wood waste, and food-soiled paper waste mixed with food waste. Solid

[7] California Air Resources Board. 2017. *Short-Lived Climate Pollutant Reduction Strategy*. Available: https://ww2.arb.ca.gov/sites/default/files/2020-07/final_SLCP_strategy.pdf. Accessed: August 24, 2023.

waste is defined as trash, recycled material, and organic waste. Organic recycling programs may involve composting, mulching, or anaerobic digestion. Businesses and multi-family residential housing complexes that generate the following quantities are required to implement organic or solid waste recycling programs under AB 1826:

- Eight or more cubic yards of organic waste per week as of April 1, 2016;
- Four of more cubic yards of organic waste per week as of January 1, 2017;
- Four or more cubic yards of solid waste per week as of January 1, 2019; and
- Two or more cubic yards of solid waste per week as of January 1, 2020, if statewide disposal of organic waste is not reduced by one-half.

In September 2020, CalRecycle reduced the threshold to 2 cubic yards of solid waste generated by covered businesses.

Title 14, CalRecycle

CCR Title 14, Division 7, contains CalRecycle regulations pertaining to all non-hazardous waste management in California. It includes regulations regarding the minimum standards for solid waste handling and disposal, standards for the handling and disposal of asbestos-containing waste, and special waste standards. It also covers enforcement standards, commercial recycling, and solid waste cleanup programs, among other topics.

Local

Santa Clara County Integrated Waste Management Plan

The California Integrated Waste Management Act of 1989, administered by the California Integrated Waste Management Board, establishes an integrated waste management program. Each State agency must develop and adopt, in consultation with the board, an integrated waste management plan. Santa Clara County's plan was approved by the board in 1996; since that time, the plan has undergone three 5-year reviews. The jurisdictions covered in Santa Clara County's plan are the cities of Campbell, Cupertino, Gilroy, Morgan Hill, Los Altos, Los Altos Hills, Los Gatos, Milpitas, Monte Sereno, Mountain View, Palo Alto, San José, Santa Clara, Saratoga, and Sunnyvale, along with unincorporated areas of the county. Each jurisdiction has a diversion requirement of 50 percent, beginning in 2000 and continuing each year thereafter. The City's diversion rate is based on a daily generation rate, expressed in terms of pounds/person/day. The target rate is equivalent to the 50 percent diversion requirement for 2000 and each year thereafter.

City of Santa Clara Climate Action Plan

The City adopted a Climate Action Plan (CAP) in 2013 that outlined the City's efforts to reduce GHG emissions consistent with the Bay Area Air Quality Management District's CEQA Air Quality Guidelines as well as larger statewide GHG reduction goals. The CAP provided an emissions inventory for 2008 and forecast emissions for 2020 and 2035. It also set a goal that called for a 15 percent reduction in GHG emissions, compared with 2008 levels, by 2020.

In June 2022, the City adopted its updated CAP to align with new State requirements and assess Santa Clara's GHG emissions. The 2022 CAP sets GHG reduction targets of 40 percent and 80 percent below 1990 levels by 2030 and 2035, respectively. It also adopted an aspirational climate goal that calls for carbon

neutrality by 2045.[8] Measures to achieve these targets were identified, focusing on energy efficiency, renewable energy, water conservation, waste reduction, off-road equipment, and transportation and land use. The City's CAP includes the following goals and measures relevant to utilities and service systems:

- Strategy B2: Improve energy efficiency
- Strategy B3: Maximize renewable energy generation and storage capacity
- Strategy M1: Increase waste diversion
- Strategy M2: Reduce landfilled food waste.
- Strategy M3: Enhance sustainable production and consumption.

City of Santa Clara Recycling Programs

The City has in place a Single-Family Recycling Program, a Multi-Family Recycling Program, and a Commercial and Industrial Recycling Program. Residences and businesses are required to comply with the applicable programs. Each program specifies which materials are acceptable for recycling as well as preparation and sorting requirements.

City Code 8.25.050 Removal of Refuse by Persons

City Code 8.25.050, Removal of Refuse by Persons, implements SB 1383 in the City. It states that any owner or occupant of a property zoned for residential, institutional, or commercial use must use the collection services provided by the City under its collection programs and the City's exclusive franchise collector, Mission Trail Waste Systems. The City uses mixed waste processing, and all organic material (food, food soiled paper) is allowed to be co-mingled with garbage. Mission Trail Waste Systems takes this co-mingled material to a mixed waste sorting facility where the organics are sorted out of the waste stream and taken to a compost facility for further processing. This type of processing is compliant with SB 1383.

Santa Clara Valley Water District

Valley Water is responsible for managing the county's water supply, including groundwater, as well as overseeing flood protection. Its jurisdiction encompasses streams and creeks, underground aquifers, and Valley Water–built reservoirs.

City of Santa Clara General Plan

General Plan policies related to hydrology and water quality, such as stormwater policies, are outlined in Section 3.10, *Hydrology and Water Quality*, and are not reproduced here. The City's current General Plan[9] includes the following goals and policies associated with utilities and service systems:

- **Goal 5.3.1-P11.** Encourage new developments proposed within a reasonable distance of an existing or proposed recycled water distribution system to utilize recycled water for landscape irrigation, industrial processes, cooling, and other appropriate uses to reduce water use consistent with the CAP.
- **Goal 5.3.1-P17.** Promote economic vitality by maintaining the City's level of service for public facilities and infrastructure, including affordable utilities and high-quality telecommunications.

[8] City of Santa Clara. 2022. *Climate Action Plan*. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan/climate-action-plan. Accessed: August 24, 2023.

[9] City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan*. Adopted: November 16, 2010. Last amended: December 9, 2014. Available: http://santaclaraca.gov/index.aspx?page=1263. Accessed: February 1, 2023.

- **Goal 5.3.1-P27.** Encourage screening of aboveground utility equipment to minimize visual impacts.
- **Goal 5.3.1-P28** Encourage undergrounding of new utility lines and utility equipment throughout the city.
- **Goal 5.10.1-G3.** Adequate solid waste disposal capacity through effective programs for recycling and composting.
- **Goal 5.10.1-G4.** Adequate wastewater treatment and conveyance capacities.
    - *Policy 5.10.1-P6*. Require adequate wastewater treatment and sewer conveyance capacity for all new development.
    - *Policy 5.10.1-P7*. Encourage the use of local recycling facilities to divert waste from landfills.
    - *Policy 5.10.1-P8*. Increase to 80 percent reduction for solid waste tonnage by 2020, or as consistent with the CAP.
    - *Policy 5.10.1-P9*. Encourage curbside recycling and composting of organic and yard waste.
    - *Policy 5.10.1-P11*. Require use of native plants and wildlife-compatible non-native plants, when feasible, for landscaping on City property.
    - *Policy 5.10.1-P12*. Encourage property owners and landscapers to use native plants and wildlife-compatible nonnative plants, when feasible.
- **Goal 5.10.3-G1.** Energy supply and distribution maximizes the use of renewable resources.
- **Goal 5.10.3-G2.** Implementation of energy conservation measures to reduce consumption.
    - *Policy 5.10.3-P1*. Promote the use of renewable energy resources, conservation, and recycling programs.
    - *Policy 5.10.3-P2*. Transition away from using coal as an energy source to renewable resources by replacing coal in Silicon Valley Power's portfolio, exploring City-owned property for renewable energy projects, developing solar projects, and incentivizing solar projects for residents and businesses, consistent with the CAP.
    - *Policy 5.10.3-P3*. Maximize the efficient use of energy throughout the community by achieving adopted electricity efficiency targets and promoting natural gas efficiency, consistent with the CAP.
    - *Policy 5.10.3-P4*. Encourage new development to incorporate sustainable building design, site planning, and construction, including encouraging solar opportunities.
    - *Policy 5.10.3-P5*. Reduce energy consumption through sustainable construction practices, materials, and recycling.
    - *Policy 5.10.3-P6*. Promote sustainable buildings and land planning for all new development, including programs that reduce energy and water consumption in new development.
    - *Policy 5.10.3-P7*. Encourage installation of solar energy collection through solar hot-water heaters and photovoltaic arrays.
    - *Policy 5.10.3-P8*. Provide incentives for LEED certified, or equivalent, development.
    - *Policy 5.10.3-P9*. Incorporate criteria for sustainable building and solar access into the City's ordinances and regulations.

- *Policy 5.10.3-P11*. Continue innovative energy programs to develop cost-effective alternative power sources and encourage conservation.
- *Policy 5.10.3-P12*. Work with Silicon Valley Power to implement adequate energy distribution facilities to meet the demand generated by new development.
- *Policy 5.10.3*-P13. Work with Pacific Gas and Electric to ensure an adequate supply of natural gas to meet the demand generated by new development.
- *Policy 5.10.3-P14*. Explore opportunities for alternative energy "fueling stations" and promote participation in shuttle services that use new technology vehicles to reduce greenhouse gas emissions.

- **Goal 5.10.4-G1.** A reliable, safe supply of potable water adequate to meet present and future needs.
- **Goal 5.10.4-G3.** A reduction in the demand and consumption of water resources.
  - *Policy 5.10.4-P1*. Promote water conservation through development standards, building requirements, landscape design guidelines, education, compliance with the State Water Conservation Landscaping Ordinance, and other applicable city-wide policies and programs.
  - *Policy 5.10.4-P2*. Expand water conservation and reuse efforts throughout the city in order to meet the conservation goals in the City's adopted Urban Water Management Plan and CAP to reduce per capita water use by 2020.
  - *Policy 5.10.4-P3*. Promote water conservation, recycled water use, and sufficient water importation to ensure an adequate water supply.
  - *Policy 5.10.4-P4*. Require an adequate water supply and water quality for all new development.
  - *Policy 5.10.4-P5*. Prohibit new development that would reduce water quality below acceptable State and local standards.
  - *Policy 5.10.4-P6*. Maximize the use of recycled water for construction, maintenance, irrigation, and other appropriate applications.
  - *Policy 5.10.4-P7*. Require installation of native and low-water-consumption plant species when landscaping new development and public spaces to reduce water usage.
  - *Policy 5.10.4-P8*. Require all new development within a reasonable distance of existing or proposed recycled water distribution systems to connect to the system for landscape irrigation.
  - *Policy 5.10.4-P9*. Work with Santa Clara Valley Water District to improve the Santa Clara Distributary.
  - *Policy 5.10.4-P10*. Work with Santa Clara Valley Water District to minimize undesirable compaction of aquifers and subsidence of soils.

South Bay Water Recycling Program

In 2014, Valley Water, in coordination with the City of San José, City of Santa Clara, and City of Milpitas, implemented the Strategic Master Plan for the South Bay Water Recycling Program (SBWRP).[10] Partner

[10] Santa Clara Valley Water District and City of San José. 2014. *South Bay Water Recycling, Strategic and Master Planning*. Volume 1: Report. Available: https://www.valleywater.org/sites/default/files/335%20P3%20Related%20Reports%20SBWR%20Stratigic%20and%20Master%20Plan%20-%20Report%20%28Vol.1%29%20%281%29.pdf. Accessed: August 24, 2023.

agencies, including the City of Santa Clara, purchase recycled water from SBWRP for approved uses. The recycled water is conveyed through pipelines for recycled water that are owned and operated by the San José-Santa Clara RWF within the SBWRP service area.[11] The SBWRP has a long-term goal that calls for supplying 10 percent of countywide water demand from recycled water sources upon full plan implementation in 2035. In an effort to fulfill SBWRP goals, the Santa Clara Municipal Code contains numerous ordinances that encourage the use of recycled water where feasible. Section 13.15.160 of Title 13, Public Services, Article IV, Regulation of Recycled Water Service and Use, prohibits the use of potable water for landscape irrigation where recycled water is available and requires the use of recycled water for all other non-potable uses when such recycled water meets applicable standards.[12]

Santa Clara Valley Urban Runoff Pollution Prevention Program

The Santa Clara Valley Urban Runoff Pollution Prevention Program (Urban Runoff Program)[13] is a multi-jurisdictional program with policies and design strategies to guide the stormwater management decisions of local agencies. The Urban Runoff Program applies to regulated projects (i.e., projects that would create or replace 10,000 square feet or more of impervious surfaces). It states that development projects that alter less than 50 percent of an existing site's impervious surfaces must treat stormwater only from the redeveloped areas of the site, while development projects that alter 50 percent or more of an existing site's impervious surfaces must treat all runoff from the site.

Silicon Valley Power Integrated Resources Program

Silicon Valley Power (SVP), the City-managed power entity serving Santa Clara, including the Project site, evaluates, based on existing facilities and future anticipated demand, service expansion scenarios through 2038 in its Integrated Resources Program.[14] The program incorporates federal, State, and local regulations and policies into potential expansion scenarios and identifies the best expansion option to pursue for continued energy efficiency and service expansion.

Santa Clara Green Power Program

The Santa Clara Green Power Program allows SVP customers to enroll in a program in which SVP matches customers' monthly energy use with the utility's energy purchases, with SVP purchasing an equal amount from entirely renewable sources. When a customer enrolls in the program, SVP purchases 100 percent of the energy the customer uses from solar energy providers in the western United States. Of this purchase, 80 percent is sourced from California solar energy providers, and 15 percent is sourced from California schools.[15]

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11 City of San José. n.d. *Recycled Water*. Available: http://www.sanjoseca.gov/sbwr. Accessed: February 1, 2023.

12 City of Santa Clara. 2019. *City of Santa Clara City Code*. Title 13, Public Services, Chapter 13.15, Water. Published by CodePublishing. Available: https://www.codepublishing.com/CA/SantaClara/#!/SantaClara13/SantaClara1315.html#13.15. Accessed: February 1, 2023.

13 City of Santa Clara. 2016. *Santa Clara Valley Urban Runoff Pollution Prevention Program*. C.3 Stormwater Handbook. Guidance for Implementing Stormwater Requirements for New Development and Redevelopment Projects. Available: https://scvurppp.org/2016/06/20/c-3-stormwater-handbook-june-2016/. Accessed: August 24, 2023.

14 Silicon Valley Power. 2018. *Final 2018 Integrated Resource Plan*. Available: http://www.siliconvalleypower.com/home/showdocument?id=62481. Accessed: February 1, 2023.

15 Silicon Valley Power. n.d. *Santa Clara Green Power*. Available: http://www.siliconvalleypower.com/solar-and-green-power/santa-clara-green-power. Accessed: February 1, 2023.

Environmental Setting

Water Demand, Supply, Treatment, Storage, and Distribution and Conveyance

Water Supply

As described in the WSA, the City relies on four water supply sources:

- Surface water from SFPUC,
- Potable water (treated surface water) from Valley Water,
- Groundwater, and
- Recycled water.

Surface Water and Potable Water. Surface water in the City is sourced from SFPUC as well as Valley Water, providing less than half of the City's water supply (averaging about 40 percent since 2015). Because a portion of the water supply for the City and the Project area is reliant on SFPUC and Valley Water, the Project area is directly affected by the water supply conditions faced by each water supplier. In addition, the City's water system is separated into three interconnected zones (1, 2, and 2A) to provide optimum water pressure throughout the City. The Project area is within Pressure Zone 1, which is generally served by SFPUC, along with some limited groundwater resources (i.e., local wells). However, because of its location, the Project area receives potable water from SFPUC exclusively.[16]

Groundwater. Groundwater in the City and the Project area comes from the Santa Clara subbasin, which is part of the Santa Clara Valley Basin, covering 189,581 acres. The Santa Clara subbasin is further divided into two groundwater management areas, the Santa Clara Plain and the Coyote Valley. The Project area is located within the Santa Clara Plain. Valley Water manages the groundwater supply in Santa Clara County and works with various water retailers in the area to prevent subsidence and overdraft, thereby ensuring reliable water supplies. The Santa Clara Valley Basin is not currently listed as being in an overdraft condition. The Santa Clara subbasin provides about 60 percent of the City's potable water.

Recycled Water. Recycled water in the City is supplied from the jointly owned San José-Santa Clara RWF through South Bay Water Recycling (SBWR). The City's recycled water meets the requirements of CCR Title 22, Division 4, which specifies the types of uses for recycled water and the conditions under which the use of recycled water is allowed. The SBWR provides oversight, promotes recycled water, operates the recycled water distribution system, and provides technical guidance to its customers.

The existing recycled water distribution system was laid out to maximize service to large potential customers. Recycled water is currently used in the City for irrigation in parks, landscaped street medians, multi-family residential units, and schools. Several industries use recycled water in their processes, cooling towers, and toilets in dual-plumbed buildings. The Project area is served by pipelines for recycled water at its western and eastern boundaries, along Patrick Henry Drive and Old Ironside Drive. These may be utilized in accordance with Title 22 restrictions and the SBWRP.[17]

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[16] City of Santa Clara. 2012. City of Santa Clara, California Water Source Service Map. Available: https://www.santaclaraca.gov/ our-city/departments-g-z/water-sewer-utilities/water-utility#:~:text=Sources%20available%20to%20the%20City, San%20Francisco%20Hetch%20Hetchy%20system. Accessed: August 24, 2023.

[17] South Bay Water Recycling. 2011. *Recycled Water Pipeline System*. Available: https://www.sanjoseca.gov/your-government/departments-offices/environmental-services/water-utilities/recycled-water. Accessed: August 24, 2023.

Water Demand

As described above in the Regulatory Setting, the City must develop a new UWMP every 5 years to comply with the Urban Water Management Planning Act (AB 797). The City's 2020 UWMP, the current water management document, helps regulatory agencies and planning departments reach decisions that will ensure continued long-term access to water in the City, according to water demand projections.

As shown in Table 3.15-1, future citywide water demand is expected to remain relatively steady or slightly only increase despite significant population increases. However, from 2016 to 2020, per capita residential water usage for single- and multi-family residential dwellings increased. This was because water usage patterns for 2020 were greatly influenced by the coronavirus (COVID-19) pandemic and subsequent stay-at-home orders. Compared to 2015 water usage, single-family residential water usage increased by 14 percent (i.e., from 4,124 af to 4,721 af). For multi-family residential, water usage increased by 9.4 percent (i.e., from 4,074 af to 4,722 af) for similar reasons.[18]

Table 3.15-1. Past and Projected Potable Water Demands in the City of Santa Clara by Land Use Type, 2020–2045 (acre-feet per year)

Land Use Type	2015 (known)	2020 (known)	2025	2030	2035	2040	2045
Single-Family Residential	5,506	4,458	4,683	4,893	5,076	5,206	5,336
Multi-Family Residential	4,696	4,722	4,458	4,659	4,833	4,957	5,080
Commercial	5,517	5,307	6,184	6,461	6,704	6,875	7,046
Industrial	2,923	1,610	1,748	1,826	1,895	1,943	1,991
Institutional/Governmental (institutional)	668	562	672	702	729	747	766
Institutional/Governmental (municipal)	472	345	560	585	607	623	638
Losses	1,297	1,299	1,168	1,221	1,267	1,299	1,331
Total	**17,620**	**18,302**	**19,473**	**20,348**	**21,111**	**21,649**	**22,189**

Source: City of Santa Clara. 2021. *2020 Urban Water Management Plan*. Available: https://www.santaclaraca.gov/our-city/ departments-g-z/water-sewer-utilities/water-utility/urban-water-management-plan. Accessed: February 1, 2023.

The Project area consists of a parking lot and four industrial buildings. One building is currently in use and served by the potable water systems described in Table 3.15-1.

Table 3.15-2 shows the projected changes in water demand during each 5-year planning horizon through 2045. The Project's proposed water demand is analyzed against this table to determine whether the demands fall within growth projections in the 2020 UWMP.

[18] City of Santa Clara. 2021. *2020 Urban Water Management Plan*. Available: https://www.santaclaraca.gov/our-city/departments-g-z/water-sewer-utilities/water-utility/urban-water-management-plan. Accessed: August 24, 2023.

Table 3.15-2. Projected Changes in Water Demands (acre-feet)

Land Use Type	2021–2025	2026–2030	2031–2035	2036–2040	2041–2045
Single-Family Residential	225	210	183	130	130
Multi-Family Residential	-264	201	174	124	123
Commercial	877	277	243	171	171
Industrial	138	78	69	48	48
Institutional	110	30	27	18	19
Municipal	215	25	22	16	15
Recycled	1,071	919	1,097	1,322	1,580
Losses	-131	53	46	32	32
Total	**2,241**	**1,793**	**1,861**	**1,861**	**2,118**

Source: City of Santa Clara. 2023. *Water Supply Assessment*. Appendix 3.15. April.

Water Treatment

SFPUC water resources are purchased post-treatment and therefore require no further treatment at City facilities. Valley Water resources (i.e., non-groundwater) are treated at the Rinconada Water Treatment Plant in Los Gatos, which is currently undergoing improvements (scheduled for completion in 2027). By 2027, the Rinconada Water Treatment Plant, which has a current capacity of 80 million gallons per day (mgd), will have a treatment capacity of 100 mgd.[19] The City's groundwater resources do not require supplemental treatment to meet potable water quality standards, although future regulations or treatment standards, such as those involving chlorination and/or fluoridation, could be introduced.[20]

Water Distribution, Conveyance, and Storage System

All municipal water from the City of Santa Clara Water and Sewer Utilities Department is conveyed citywide through 335 miles of water distribution mains. The City currently has 26 active wells and one abandoned well, seven water storage tanks with a combined total capacity of 28.8 million gallons (mg), and three water pump stations. Water purchased from SFPUC is received and stored by the City at the Northside water storage tanks located near San Tomas Aquino Creek, south of Tasman Drive. In addition, the City has 33 miles of San José-Santa Clara RWF-owned recycled water conveyance pipes that operate under the SBWRP.[21]

The Project area consists of a parking lot and four industrial buildings. One building is currently in use and served by the water conveyance systems described in Table 3.15-3. Recycled water is currently used to irrigate some limited landscaping within the Project area and on neighboring properties.

[19] Santa Clara Valley Water District. 2019. *Rinconada Water Treatment Plant Reliability Project*. Available: https://www.valleywater.org/project-updates/rinconada-water-treatment-plant-reliability-improvement. Accessed: February 1, 2023.

[20] City of Santa Clara. 2019. *City of Santa Clara City Code*. Title 13, Public Services, Chapter 13.15, Water. Published by CodePublishing. Available: https://www.codepublishing.com/CA/SantaClara/#!/SantaClara13/SantaClara1315.html#13.15. Accessed: February 1, 2023.

[21] Ibid.

Table 3.15-3. Existing Water Conveyance Systems Serving the Project Area

Water Facility Type	Location(s) within Project Area
Reclaimed Water: 8 inch	Patrick Henry Drive, Old Ironside Drive
Water Main: 12 inch	Democracy Way, Old Ironside Drive, Patrick Henry Drive, Tasman Drive, SFPUC Hetch Hetchy ROW

Source: Kylli, Inc., 2023.

Wastewater Treatment and Collection

The wastewater collection system in Santa Clara is owned and operated by the City. More than 270 miles of sewer mains and seven pump stations are used to convey wastewater to the San José-Santa Clara RWF. The City of San José and City of Santa Clara own the RWF. The City of San José is the administrative agency that operates the RWF under a 1959 agreement. The City's 2016 Sanitary Sewer Master Plan Update addresses management, operation, and maintenance of the sanitary sewer system, in compliance with the SWRCB's Statewide General Waste Discharge Requirements for Sanitary Sewer Systems. The Sanitary Sewer Master Plan evaluated potential capacity deficiencies and backups in the existing sewer system and identified areas that were likely to experience such conditions with future (2035) flows. The Sanitary Sewer Master Plan recommended several pipe upgrades and lift station pump adjustments.

The RWF is an advanced tertiary treatment plant that treats an average of 110 mgd (123,216 af per year [afy]) of wastewater. Currently, approximately 13 percent of the effluent from the RWF is rechlorinated and distributed by SBWR, at which point it meets the requirements of CCR Title 22 for unrestricted non-potable reuse. Since March 2014, the RWF also supplies the Silicon Valley Advanced Water Purification Center with secondary wastewater for advanced purification treatment. The remainder of the wastewater is discharged to the Artesian Slough, which leads to the southern portion of San Francisco Bay.

In 2020, the RWF collected and treated 113,393 af (36,949 mg) of wastewater, of which 12,571 af (4,092 mg) was treated to meet Title 22 standards for unrestricted non-potable reuse (see Table 6-2 of the 2022 UWMP).

As stated above, the Project area consists of a parking lot and four industrial buildings. One building is currently in use. Any wastewater generated by the current use is conveyed to the San José-Santa Clara Water Pollution Control Plant for treatment. However, the site is also served by existing City-owned wastewater conveyance facilities, as described in Table 3.15-4 and shown in Figure 2-12 in Chapter 2, *Project Description*. All sewage in the Project area flows toward an existing 12-inch line in Tasman Drive and through the Tasman Lift Station.

Table 3.15-4. Existing Water Conveyance Systems Serving the Project Area

Wastewater Facility Type	Location(s) within Project Area
Sanitary Sewer: 12 inch	Democracy Way, Old Ironside Drive, Patrick Henry Drive, Tasman Drive
Sanitary Sewer Manhole	Democracy Way, Old Ironside Drive, Patrick Henry Drive, Tasman Drive

Source: Kylli, Inc., 2023.

Storm Drainage System

The Project area is currently served by existing storm drains and manholes. These are located within Democracy Way, Patrick Henry Drive, Tasman Drive, and Old Ironside Drive. The main storm drain for the Project site is located within Democracy Way. Stormwater conveyed through existing storm drain infrastructure in the roads drains to San Tomas Aquino Creek, a hardened creek approximately 0.5 mile east of the Project area.

Solid Waste Collection and Disposal

Municipal solid waste disposal and recycling services in the City are provided by Mission Trail Waste Systems for industrial operations and offices. Mission Trail Waste Systems also provides solid waste disposal services for residential uses citywide; Recology South Bay provides residential recycling services.[9] Solid waste generated in the City is brought to the Newby Island Sanitary Landfill, Newby Island Recyclery, Newby Island Composting Facility, Zanker Material Processing Facility, Guadalupe Sanitary Landfill, or Kirby Canyon Recycling and Disposal Facility for sorting and the diversion of recyclable and compostable materials prior to disposal at the landfill sites. As described in Section 2.0, *Project Description*, Stevens Creek Quarry is a private solid waste disposal facility in Sunnyvale that takes in certain construction wastes. The remaining capacity for each landfill and processing facility, based on the most recent permitting date, is shown in Table 3.15-5.

Table 3.15-5. Solid Waste Facilities Serving the City of Santa Clara and Other Municipalities

Facility	Services	Permitted Capacity	Remaining Capacity (cubic yards)
Newby Island Sanitary Landfill	Construction/demolition, industrial, mixed municipal, sludge (biosolids), tires, green materials, contaminated soil	Through 1/1/2041	16,400,000
Newby Island Recyclery	Construction/demolition, mixed municipal, tires, industrial, green materials	N/A	N/A (maximum throughput of 1,600 tons/day)
Newby Island Compost Facility	Agricultural, food wastes, green materials	N/A	N/A (maximum throughput of 700 tons/day)
Zanker Material Processing Facility	Construction/demolition, other designated material	Through 11/1/2025	640,000
Guadalupe Sanitary Landfill	Construction/demolition, mixed municipal, industrial, green materials	Through 1/1/2048	11,055,000
Kirby Canyon Recycling and Disposal Facility	Mixed municipal, industrial, construction/demolition, tires, green material	Through 12/31/2059	16,191,600
Stevens Creek Quarry (private)	Class II (non-hazardous) backfill, rock, aggregate base, and other construction materials	N/A	N/A

Source: California Department of Resources Recycling and Recovery. 2023. *SWIS Facility/Site Search.* Available: https://www2.calrecycle.ca.gov/SolidWaste/Site/Search. Accessed: February 1, 2023.
Stevens Creek Quarry. 2023. *Products*. Available: http://www.scqinc.com/products/. Accessed: February 1, 2023.

The City's current solid waste disposal weight target is 8.2 pounds per day per capita for residents and 9.0 pounds per day per capita for employees. According to 2020 CalRecycle data, the most recent available data displaying per resident and per employee solid waste disposal rates for the City, City residents generated 5.6 pounds per day of solid waste, and employees in the City, who may or may not also be City residents, generated 5.6 pounds per day of solid waste in 2020. Therefore, the City has achieved its solid waste disposal goals.[22]

In 2008, approximately 58 percent of the total waste generated was diverted from landfills through various recycling and green waste collection programs. Since 2008, the community has increased the diversion rate to 65 percent, thereby decreasing the amount of waste sent to landfills by more than 40,000 tons per year. The 65 percent diversion rate continued through 2020.[23] Additional diversion goals were outlined in the 2022 CAP to comply with State solid waste laws, including AB 1826, AB 341, and SB 1383. These bills require businesses, public entities, and communities to expand recycling and composting infrastructure to meet the State's ambitious landfill waste reduction targets. AB 1826 requires commercial businesses that generate a certain level of organic waste to arrange for recycling services for that waste. AB 341 similarly requires commercial businesses and public entities that generate a certain level of weekly waste to have a recycling program in place. SB 1383 requires California to reduce organic waste to landfills by 75 percent by 2025 and rescue 20 percent of surplus edible food in phases beginning in 2022.[24]

The Project area consists of a parking lot and four industrial buildings. One building is currently in use. Using standard solid waste generation rates, the existing building generates approximately 42 tons of solid waste per year (see Table 3.15-7 under Impact UT-4).

Existing Energy and Natural Gas Demand, Sources, and Distribution

Existing energy demand involving electricity and natural gas is discussed further in Section 3.5, *Energy*.

Telecommunications Infrastructure

The City is serviced by numerous telecommunications companies (e.g., AT&T, Verizon, Sonic, Comcast, local providers) that provide internet services citywide, including high-speed fiber optic internet services. The City is located within the AT&T service area for landline telecommunications. The Project site is serviced by both AT&T and Comcast for internet and telephone telecommunication services. In addition, the City provides free WiFi internet access citywide, which is generally accessible from all public places, including outdoor areas. SVP manages its free public WiFi capabilities through a metering network, called SVP MeterConnect. This WiFi service would be available from outdoor areas on the Project site.

[22] California Department of Resources Recycling and Recovery. 2017. *Jurisdiction Diversion/Disposal Rate Summary*. Per Capita Disposal Rate Trends. Santa Clara. Available: https://www2.calrecycle.ca.gov/LGCentral/DiversionProgram/JurisdictionDiversionPost2006. Accessed: February 1, 2023.

[23] City of Santa Clara. 2013. *Santa Clara Climate Action Plan*. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan/climate-action-plan. Accessed: February 1, 2023.

[24] City of Santa Clara. 2022. *Climate Action Plan*. https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan/climate-action-plan. Accessed: February 1, 2023.

Environmental Impacts

This section describes the impact analysis related to utilities and service systems for the Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

Thresholds of Significance

The Project would have a significant effect if it would result in any of the conditions listed below.

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects (UT-1 and C-UT-1)
- Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years (UT-2 and C-UT-1)
- Result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments (UT-3 and C-UT-1)
- 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-4 and C-UT-1)
- Fail to comply with federal, State, and local management and reduction statutes and regulations related to solid waste (UT-5)

Methods for Analysis

Project impacts on utilities, service systems, and energy are evaluated according to the Thresholds of Significance identified above, based on available information on existing utilities infrastructure and demand provided by the City, SBWR, the U.S. Energy Information Administration, SFPUC, SVP, and other resources.

Water. The evaluation of potential impacts on the water supply was based on the WSA prepared for the Project, which considered the 2020 UWMP. Potential impacts on the water conveyance system were evaluated using information in the *Mission Point Project, 3005 Democracy Way Water Supply Assessment*, which documents existing domestic and recycled water systems, water design criteria, and proposed water infrastructure.

Wastewater. Potential impacts on the wastewater conveyance, wastewater treatment plant, and sanitary sewage systems were evaluated using the information in the *Sanitary Sewer Technical Memorandum*, which evaluated the existing and future capacity of the wastewater conveyance system within the City using a hydraulic model.

Storm Drain. Potential impacts on the storm drain system were evaluated using the information in the *Storm Drainage Study*, which documents the existing storm drainage system, stormwater design criteria, and storm drain infrastructure. The need for storm drain infrastructure is presented in Section 3.10, *Hydrology and Water Quality*. This section's analysis is limited to the secondary environmental impacts associated with storm drain facilities.

Solid Waste. Potential impacts on the Newby Island Landfill were evaluated by calculating the amount of solid waste that would be generated by the Project, comparing the volume to the existing remaining capacity of the landfill, and determining whether there would be enough capacity to serve the Project.

Electricity, Natural Gas, and Telecommunications. Potential impacts related to electricity and natural gas are further evaluated in Section 3.5, *Energy.* Telecommunications impacts were evaluated using information in Section 2.0, *Project Description.*

Topics Found to Have No Impact

Solid Waste Regulations (UT-5). The Project would involve operation and maintenance of residential, commercial, and office/research-and-development (R&D) uses, which would not result in the generation of unique types of solid waste that would conflict with existing regulations applicable to solid waste disposal. The Project would be required to comply with City solid waste disposal requirements, including recycling, composting, and special materials disposal programs to comply with the provisions of AB 939. Therefore, the Project would comply with applicable federal, State, and local statutes and regulations related to solid waste, resulting in ***no impact***.

Impacts and Mitigation Measures

Impact UT-1: Utility Relocation, Construction, or Expansion. With implementation of mitigation, the Project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electricity, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. (Less than Significant with Mitigation)

Construction

Construction activities within the Project site would be served by existing utility systems and infrastructure. Because there is adequate utility service available at the Project site, it is reasonably expected that construction activities that require electricity (e.g., operating lights or construction equipment/vehicles) would be serviced by existing electric outlets or by generators and that no expansion of electrical facilities would be necessary to serve construction activities. In addition, because it is expected that 85 percent of the construction equipment/vehicles would operate with gasoline- or diesel-powered engines, the need to install additional electric connections is not anticipated. Furthermore, natural gas and telecommunications facilities are generally not used during construction. Limited construction-phase water needs, for activities such as dust suppression, would be met through the metered use of water conveyed by water trucks and tanks. Because portable restrooms would be temporarily installed onsite, construction is not anticipated to result in substantially elevated wastewater generation levels in the local sanitary sewer system.

As discussed in Section 3.10, *Hydrology and Water Quality,* of this EIR, temporary construction dewatering would be required during subsurface construction activities. Dewatering effluent could have high turbidity (i.e., suspended sediment) and contain contaminants. Any groundwater dewatering discharge would be subject to permits from the City of San José Environmental Services Department, which manages and operates the RWF, or the San Francisco Bay RWQCB, depending on whether the discharge would be to the sanitary sewer or storm drain system, respectively.

A dewatering memorandum indicates that estimated excavation dewatering flow rates for the Project would be between 0.7 and 4.2 gallons per minute at each of the four areas on the Project site, if the Project

is constructed in four phases.[25] Although construction in the four areas would start at different times, two areas of construction (Areas B and D) could have some overlap in their dewatering periods. Additional dewatering for depressurization purposes could be needed in the deeper sand lenses, with flow rates estimated to be between 7.3 and 8.5 gallons per minute in each area of construction. The duration of dewatering was estimated to be from 398 to 493 days for each area of construction.[26] Runoff to the Tasman Drive system under existing conditions was calculated to be 63.5 cubic feet per second for the 10-year event, while runoff under existing conditions to the Old Glory Lane system was calculated to be 14.2 cubic feet per second for the 10-year event.[27] Thus, dewatering discharge rates would be less than peak storm flows and within system capacity. In addition, if discharged to the sanitary sewer system, the discharge rate would be restricted to the anticipated average dry-weather flow rate of 588,780 gallons per day (gpd). As discussed below, the sanitary system is designed to accommodate the average dry-weather flow. Therefore, the sanitary sewer system would have capacity to receive an excess dewatering discharge, if needed.

Based on the analysis above, Project construction activities would not require the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, or telecommunications facilities to serve construction activities, and impacts would be ***less than significant***.

Operation

Water Supply Facilities

The Project would include vacating the public ROW easement at Democracy Way, thereby requiring the removal and relocation of the existing 12-inch water main within that street. New water mains would be constructed to deliver water to the Project site, as shown in Figure 2-13 in Chapter 2, *Project Description*. Specifically, a new private 12-inch water line is proposed within the private Kylli Drive East and Kylli Drive West. New domestic and fire-services backflow preventers would also be installed between the Project site and Patrick Henry Drive and Old Ironsides Drive. The existing 8-inch recycled water lines would be replaced with 12-inch lines on both Patrick Henry Drive and Old Ironside Drive. In addition, the Project proposes recycled water connections on both Patrick Henry Drive and Old Ironsides Drive to service irrigation systems for public open spaces and private open spaces. These infrastructures upgrades would ensure that adequate water pressure would be maintained during peak-hour conditions.

Construction of the proposed water infrastructure improvements would have the potential to cause significant adverse environmental effects, such as fugitive dust generation, noise generation, sedimentation, and erosion. The proposed utility expansions are a part of the Project description, and the potential impacts that would result from construction of these facilities are evaluated throughout this EIR (e.g., Section 3.3, *Air Quality*; Section 3.6, *Noise and Vibration*; Section 3.10, *Hydrology and Water Quality*). Therefore, the Project would not require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects, beyond the facilities already included in the Project description and evaluated in this EIR. This impact would be ***less than significant***.

[25] Langan. 2022. *Groundwater Dewatering Flow Rates, 3005 Democracy Way, Santa Clara, California*. October 5.
[26] Ibid.
[27] Ibid.

Wastewater Facilities

The Project site is served by three 12-inch sanitary sewer lines located within adjacent roadway ROWs. These lines connect to the Democracy Way line and the 12-inch Tasman Drive line, which connect to the Tasman Lift Station at the southwest corner of Tasman Drive and Great America Parkway, as shown in Figure 2.14 in Chapter 2, *Project Description*.

The Project proposed two sewer system layouts to connect to the City's existing sewer system at several locations, as shown in Figure 2-14 and Figure 2-15 of Chapter 2, *Project Description.* Under Option 2A, the existing sewers along Patrick Henry Drive and Old Ironside Drive would remain in place. The existing Tasman Drive 12-inch sewer line between manholes S92-6 and S93-24 would be abandoned in place. In order to ensure adequate wastewater conveyance capacity to the San José-Santa Clara RWF for treatment, a new Tasman Drive 15-inch sewer line would discharge into the existing 12-inch sewer along Tasman Drive and continue east to the Tasman Lift Station.

Wastewater flows from the Project site would drain by gravity to existing manholes in Great America Parkway's west trunk. In addition, new sewer lines are proposed for Kylli Drive, Old Ironside Drive, and Tasman Drive that would drain into Great America Parkway's west trunk. A proposed private sewer would be constructed along the Hetch Hetchy ROW, with the option of including a new sewer along Old Ironside Drive. This would drain south to Old Glory Lane and then east to discharge by gravity into Great America Parkway's west trunk. Wastewater from the west side of the Project site would be redirected through a new sewer that would connect the downstream end of Patrick Henry Drive to manhole S93-24 at the intersection of Tasman Drive and Old Ironside Drive. The new sewer would be north of the existing Tasman Drive 12-inch sewer. All wastewater that currently drains into manhole S92-6 at the intersection of Patrick Henry Drive and Tasman Drive would drain into this new Tasman Drive sewer. Any wastewater from areas between Patrick Henry Drive and Old Ironside Drive, north of the Valley Transportation Authority (VTA) light rail, would also drain into the new Tasman Drive sewer.

Under Option 3A, wastewater would drain into a private sewer that runs south to north through the center of the Project site. An onsite lift station would be constructed between Areas A and B. Wastewater would be lifted from the onsite private sewer to a new sewer along Old Ironside Drive, which would drain by gravity into Great America Parkway's west trunk.

Similar to Option 2A, Option 3A would include a new sewer along Tasman Drive that would convey flows from adjacent parcels on the west as well as flows that drain into existing manhole S92-6. Wastewater from areas between Patrick Henry Drive and Old Ironside Drive, north of the VTA light rail, would also drain into the new Tasman Drive sewer. The new sewer would connect to the existing Tasman Drive 12-inch line at manhole S93-24 at the intersection of Tasman Drive and Old Ironside Drive and continue east to drain into the Tasman Lift Station. Wastewater east of the Project site would continue to drain into the existing Old Ironside Drive sewer, then into the existing 12-inch sewer to the Tasman Lift Station.

Construction of the proposed wastewater infrastructure improvements would have the potential to cause significant adverse environmental effects, such as fugitive dust generation, noise generation, sedimentation, and erosion. The proposed utility expansions are a part of the Project description, and the potential impacts that would result from construction of these facilities are evaluated throughout this EIR (e.g., Section 3.3, *Air Quality*; Section 3.6, *Noise and Vibration*; Section 3.10, *Hydrology and Water Quality*). Therefore, the Project would not require or result in the relocation or construction of new or expanded wastewater facilities, the construction or relocation of which could cause significant environmental effects, beyond the facilities already included in the Project description and evaluated in this EIR. This impact would be ***less than significant***.

Stormwater Drainage Facilities

During the construction phase, the existing stormwater conveyance facilities and drainage lines within Democracy Way would be abandoned. To ensure that the Project site would have adequate storm drain conveyance capacity, the 42-inch and 36-inch segments of the Tasman Drive stormwater drainage line would be replaced with 48-inch and 36-inch segments, respectively, to compensate for the loss of capacity resulting from the abandonment of the Democracy Way stormwater drainage facility. The construction of the proposed stormwater infrastructure improvements would have the potential to cause significant adverse environmental effects, such as fugitive dust generation, noise generation, sedimentation, and erosion. The proposed utility expansions are a part of the Project description, and the potential impacts that would result from construction of these facilities are evaluated throughout this EIR (e.g., Section 3.3, *Air Quality*; Section 3.6, *Noise and Vibration*; Section 3.10, *Hydrology and Water Quality*).

As discussed in Section 3.10, *Hydrology and Water Quality*, the precise timing for the stormwater drainage system construction discussed above has not been defined. If modifications to the existing stormwater drainage systems are not appropriately designed or constructed at the appropriate times with regard to the different phases of Project construction, as well as weather conditions (e.g., rain), then runoff from the Project site could exceed the capacity of existing or proposed stormwater drainage systems, thereby requiring the construction of additional stormwater drainage facilities, which would be a ***significant*** impact. Implementation of Mitigation Measures WQ-3.1 and WQ-3.2, described in Section 3.10, *Hydrology and Water Quality,* would ensure that potential construction impacts of the Project related to exceeding the capacity of existing or proposed stormwater drainage systems would be ***less than significant with mitigation.*** Specifically, the mitigation measures would require a hydraulic study to be prepared to demonstrate that existing and proposed stormwater drainage systems would be capable of conveying 10-year peak runoff flows from the Project site and ensure that such flows during a 100-year flood event would remain within public roadway limits and would not extend into private property. Furthermore, modifications to the Project design would be implemented, if necessary, and a construction-period stormwater drainage control plan would be implemented.

Upon completion, the Project site would have significantly more landscaped areas than under existing conditions. It would also have more impervious surfaces than under existing conditions, as descripted further in Section 3.10, *Hydrology and Water Quality*. However, because of the landscaping-related increase in pervious surface area, there would be a decrease in stormwater runoff. In addition, the Project would include new stormwater collection and conveyance infrastructure as part of the overall stormwater management plan, including filtration systems throughout the Project site. This would include stormwater treatment measures to satisfy the NPDES Municipal Regional Permit C.3 Provision.

The following approaches to stormwater treatment would be considered and carefully selected as part of the final design process for the different sections of the proposed development: bioretention areas, flow-through planters, tree-well and media filters, infiltration trenches, green streets, and pervious pavement, or equivalent treatment measures. Rainwater harvesting and reuse would also be considered. The completed street grading would allow runoff to pond at an elevation that would be lower than the elevation of the finished floors and be released to the public street should the onsite storm drain system fail. In addition, for drainage reasons, the finished floor elevations for the buildings on the Project site would be approximately 15 feet above grade, as described in more detail in Section 3.10, *Hydrology and Water Quality*. Therefore, with implementation of stormwater treatment measures and Mitigation Measures WQ-3.1 and WQ-3.2, impacts on stormwater drainage facilities would be ***less than significant with mitigation***.

Electricity, Natural Gas, Telecommunications Facilities

Existing natural gas and electric infrastructure is provided by Pacific Gas and Electric and SVP, respectively. A network of natural gas mains is present in all streets adjacent to and within the Project site, including Democracy Way. Natural gas could be used in vehicles in the future, as described in Section 3.5, *Energy*, or it could be used in an R&D setting if it complies with the exceptions allowed in the City's Reach Code. Because natural gas usage in vehicles is not part of the Project design, it is not discussed further. Energy impacts related to electricity are discussed in Section 3.5, *Energy*.

SVP approval would be required for both abandonment of Democracy Way and service to Kylli Drive East and Kylli Drive West. The utility provider would be consulted regarding the relocation of electric facilities in concert with demolition activities onsite and the installation of new substructures, cables, switches, and associated electrical facilities.

The Project is expected to result in an increase in demand for electricity, an increase that could exceed the capacity of the existing electric distribution system. Therefore, an approximately 18,000-gross-square-foot (gsf) electrical substation would be constructed onsite to support the Project. The at-grade substation would be located on the east side of the Project site, in Area C, and have no parking above or below. This substation could also support electrical needs at the adjacent Santa Clara North area. SVP will coordinate the precise size, dimensions, and layout of the substation during the design phase of the Project.

Natural gas would only be used on the Project site if it is allowed under the exceptions in the City's Reach Code and approved by the City. Gas service to the Project site would be provided by the existing gas mains in Patrick Henry Drive, Tasman Drive, and Old Ironsides Drive. Additional expansions to gas lines would not be required as part of the Project.

Telecommunication services are provided by AT&T and Comcast. A network of communication lines exists in all streets adjacent to the Project site and within Democracy Way. AT&T would provide service to all buildings on the Project site. Typically, conduits for new Comcast service would be installed by Comcast contractors.

The construction of the proposed electricity facilities, substation, and telecommunication facilities would have the potential to cause significant adverse environmental effects, such as fugitive dust generation, noise generation, sedimentation, and erosion. The proposed utility expansions are a part of the Project description, and the potential impacts that would result from construction of these facilities are evaluated throughout this EIR (e.g., Section 3.3, *Air Quality*; Section 3.6, *Noise and Vibration*; Section 3.10, *Hydrology and Water Quality*). Therefore, the Project would not require or result in the relocation or construction of new or expanded electricity, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects, beyond the facilities already included in the Project description and evaluated in this EIR. This impact would be ***less than significant***.

Impact UT-2: Water Supply. The Project would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. (Less than Significant)

Construction

The City requires the use of recycled water for construction-related activities. Construction activities within the Project site would be served by existing recycled water systems and infrastructure. Because there is adequate recycled water service available at the Project site, construction activities that require

water, such as for dust suppression and dewatering, would be met through the either the use of onsite recycled water or use of recycled water conveyed by water trucks and tanks. Therefore, construction of the Project would have adequate water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. The impact would be ***less than significant***.

Operation

The Project would increase water demand on the Project site compared with existing conditions. Existing water demand on the Project site is currently 2.3 afy. The Project would increase water demand on the site to 646.4 afy. Table 3.15-6 summarizes the existing and projected water demand of the Project by land use.

Table 3.15-6. Existing and Projected Water Demand per Land Use per Year

Land Use Type	Status	Water Source	Development	Units	Gallons/ Day	Acre-Feet/ Year
Residential	Proposed	Potable	1,800	units	217,800.0	244.0
Office – Commercial	Proposed	Potable	3,000,000	gsf	270,000.0	302.4
Retail – Commercial	Proposed	Potable	100,000	gsf	7,300.0	8.2
Childcare – Institutional	Proposed	Potable	10,000	gsf	1,830.0	2.0
Community Amenity – Commercial	Proposed	Potable	3,000	gsf	330.0	0.4
Irrigation	Proposed	Recycled	1,063,000	gsf	81,851.0	91.7
Historic	Existing	Potable	Commercial		(2029.4)	(2.3)
Total Demand (increase per year)					**577,081.5**	**646.4**

Source: City of Santa Clara Water and Sewer Utilities Department. 2023. *Mission Point Project, 3005 Democracy Way Water Supply Assessment.* Appendix 3.15. April.
gsf = gross square feet

The City's projected potable water supplies are as follows; 37,219 af in 2025, 33,097 af in 2030, 34,194 af in 2035, 35,516 af in 2040, and 37,096 af in 2045.[28] The water service reliability assessment requires a comparison of supply and demand projections for three scenarios: (1) a normal year, (2) a single dry year, and (3) five consecutive dry years. The percentage of the total annual supply available under each scenario is based on the projected availability of the water supplies identified and the cutbacks determined by the City's wholesalers. Because allowable groundwater pumping is based only on sustainable yield, groundwater supply availability is not expected to decrease during dry years. In addition, recycled water is not dependent on climatic effects and is assumed to be unaffected by drought conditions.

- Normal Year – The City anticipates meeting all water demands through 2045 under normal-year supply conditions, even with implementation of the Bay-Delta Plan Amendment.
- Single Dry Year – The City anticipates meeting all water demands through 2045 under single dry-year supply conditions, assuming no reductions in supplies from groundwater, even with implementation of the Bay-Delta Plan Amendment.

[28] These values assume an interruption in the SFPUC water supply after 2028.

- Five Consecutive Dry Years – The City anticipates meeting all water demands through 2045 under five consecutive dry-year supply conditions, assuming no reductions in supplies from groundwater, even with implementation of the Bay-Delta Plan Amendment.

The City would be able to increase the amount of groundwater pumped to meet reasonably anticipated deficiencies from other sources; therefore, the supply is projected to be adequate with respect to meeting demand through 2045. For each 5-year increment, the 5-year dry period indicates that supplies would be able to meet demands through increased groundwater pumping and implementation of drought conservation programs. The City would be able to address the projected demands without rationing.

Because the City determined that the Project's water demand would be within the City's modeled 2020 UWMP growth projections, an adequate water supply would be available to serve the Project under normal-year, single dry-year, and five consecutive dry-year conditions, as described above for the City's water service reliability assessment. Similarly, projected water demand for reasonably foreseeable future development, including the Project, would also be met with the City's water supply; therefore, the supply is projected to be adequate with respect to meeting demand through 2045. In addition, because recycled water is currently available at the Project site and at some of the reasonably foreseeable future development sites, the Project and future development could connect to the existing recycled water system. Recycled water would be used to the maximum extent feasible to supplant the use of potable water, consistent with the SBWRP and the Santa Clara Municipal Code. Santa Clara City Code, Chapter 13.15, Article IV, Regulation of Recycled Water Service and Use, Section 13.15.160, states that "(a) It is the purpose and intent of the City Council to prohibit the use of potable water for landscape irrigation where recycled water is made available and meets all applicable standards." It also states that "(b) It is also the purpose and intent of the City Council to require the use of recycled water for all other non-potable uses where recycled water is made available, meets all applicable standards for those uses and is determined to be suitable and economically feasible therefor." Thus, the WSA finds that uses for recycled water could include office/R&D, retail, childcare, community amenity, and irrigation uses. For the Project, these aforementioned land uses would have an overall water demand of approximately 405 afy, which could be offset by the use of recycled water. All line extensions for recycled water use onsite would require City, SBWR, and SWRCB Division of Drinking Water approval.

In addition to using recycled water, the Project would also include a number of sustainability features to reduce water use. Such features would involve building and landscape rainwater capture and reuse; greywater reuse; the use of reclaimed wastewater onsite, low-flow plumbing fixtures, native drought-tolerant landscaping, and flow-through planters; and reductions in impermeable surfaces. All of these Project-specific sustainability features would help offset potable water demand from the Project. Therefore, because the Project's water demand would be within the 2020 UWMP growth projects, and given the sustainability features that would be implemented, the Project would have adequate water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. The impact would be ***less than significant***.

Impact UT-3: Wastewater Treatment Capacity. The Project would result in a determination by the wastewater treatment provider that serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments. (Less than Significant)

Construction

Construction activities within the Project site would be served by the existing sewer system and infrastructure. Because portable restrooms would be temporarily installed onsite, construction is not anticipated to result in substantially elevated wastewater generation levels in the local sanitary sewer system. In addition, as discussed in detail under Impact UT-1, above, dewatering discharge rates would be less than peak storm flows and within system capacity. If discharged to the sanitary sewer system, the dewatering discharge rate would be restricted to the anticipated average dry-weather flow rate of 588,780 gpd. The sanitary system is designed to accommodate the average dry-weather flow. Therefore, the sanitary sewer system would have capacity to receive an excess dewatering discharge, if needed. Construction of the Project would not result in capacity deficiency in local or downstream sewers in the near term or future, according to the Project's Sanitary Sewer Capacity Evaluation (Sewer Study).[29] Therefore, the San José/Santa Clara RWF would have adequate capacity to serve the Project's projected demand in addition to the wastewater facility's existing commitments. The impact would be ***less than significant***.

Operation

The Sewer Study evaluates wastewater treatment and sewer capacity projections for the Project.[30] Hydraulic modeling was conducted to evaluate baseline conditions as well as conditions under the Project. The Project site is served by the Tasman Lift Station, which has a maximum capacity of 1.5 mgd. Under baseline conditions, the peak wet-weather flow reaching the Tasman Lift Station would be 1.33 mgd, which is less than its estimated firm capacity of 1.5 mgd. The Project's estimated average base wastewater flow is approximately 0.59 mgd.

Under sewer option 2A in near-term conditions, the peak wet-weather flow reaching the Tasman Lift Station would be 0.8 mgd, which is less than its estimated firm capacity of 1.5 mgd. Under sewer option 3A in near-term conditions, the peak wet-weather flow reaching the Tasman Lift Station would be 1.05 mgd, which is also less than its estimated firm capacity of 1.5 mgd. The Project peak wet weather flows would be the same in either option, 2A or 3A, the difference between 0.8 mgd and 1.05 mgd is based on other contributing factors related to the location of the sewer line routing.

Flows to the Tasman Lift Station decrease in near-term conditions under both options because a number of improvements to the sewer system are planned; these would be implemented over the course of the Project's construction period. Therefore, both sewer options included in the Project would reduce the peak wet-weather flow reaching the Tasman Lift Station, and flows would not exceed the life station's capacity. The wastewater treatment provider that serves the Project would have adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments. The impact would be ***less than significant***.

[29] City of Santa Clara Water and Sewer Utilities Department. 2023. *Sanitary Sewer Capacity Evaluation*. June 7.

[30] Ibid.

Impact UT-4: Solid Waste Capacity. 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)

Construction

Construction activities required for the Project would generate solid waste during demolition of the structures onsite as well as during excavation under pavement and general material use. Measure 4.2 of the City CAP establishes a solid waste diversion goal of 80 percent in the City; this includes waste from construction and demolition. As described in greater detail in Chapter 2.0, *Project Description*, to manage construction-generated solid waste, the Project would include a construction and demolition plan that would call for approximately 90 to 95 percent of demolition material to be recycled. The Project would use salvaged, recycled, and low-impact materials where appropriate and send them for treatment and reuse rather than to a landfill. During construction, the Project would reuse excavation materials, process demolition onsite, segregate waste streams, audit waste, and implement take-back schemes. Demolition debris is 100 percent recyclable and therefore would most likely be taken to Stevens Creek Quarry in Sunnyvale, a privately owned facility that recycles rock and asphalt materials for resale. Other debris would most likely be taken to the Zanker Material Processing Facility in San José where up to 75 to 85 percent of the remaining material would be sorted and recycled. Organic material cleared during construction could be reused as fill in future landscaped areas onsite or offsite. Therefore, because approximately 90 to 95 percent of demolition materials would be recycled, which is in excess of the 80 percent solid waste diversion goal in the City's CAP, the impact would be ***less than significant***.

Operation

The Newby Island Landfill has a permit to accept a maximum of 3,260 tons of solid waste per day and currently accepts an average of 2,400 tons per day. Operation of the Project would generate approximately 6,235 tons per year of solid waste (without any diversion), as shown in Table 3.15-7, which provides data regarding estimated solid waste generation by proposed land use. This would represent an increase in solid waste generation of 6,193 tons per year compared to the existing solid waste generation rate on the Project site of 42 tons per year.

The Project would comply with the mandatory requirements of the Santa Clara Commercial and Residential Recycling Programs to help the City meet its waste diversion goal of 65 percent as well as City ordinances that regulate single-use carryout bags and expanded polystyrene foam food-service ware. Solid waste reduction strategies that would be implemented as part of the Project include optimization of an organic waste collection system to support operations at Mission Trail Waste Systems, grease collection/recycling for offsite biofuel conversion, and triple-chute waste collection in proposed residential buildings.

The Project would attempt to achieve a diversion rate of 65 percent. Assuming a 65 percent diversion rate, implementation of the Project would generate approximately 2,182 tons per year of solid waste, which would be disposed of at the Newby Island Landfill. This represents an increase in solid waste generation of 2,140 tons per year compared to the existing solid waste generation rate on the Project site of 42 tons per year.

When operational, the Project would generate approximately 17 tons of solid waste per day; the Newby Island Landfill permits up to 4,000 tons per day. Therefore, the Project's 17 tons per day would be approximately 0.425 percent of the landfill's daily capacity.

Table 3.15-7. Estimated Solid Waste Generation Rate by Land Use

Land Use	Project (square footage)	Disposal Rate[a]	Units of Measure[a]	Solid Waste Generation (per day)	Annual Solid Waste Generation (tons)
Residential (Multi-Family)	Up to 1,800,000 gsf (1,800 units)	8.6	lbs/dwelling unit/day	15,480 lbs 7.74 tons	2,825
Office	Up to 3,000,000 gsf	6	lbs/1,000 sq ft/day	18,000 lbs 9 tons	3,285
Retail	Up to 100,000 gsf	5	lbs/1,000 sq ft/day	500 lbs .25 ton	91
Childcare/ Community Amenity/ Conference Space	Up to 10,000 gsf Up to 3,000 gsf	0.007	lbs/sq ft/day	70 lbs .04 ton 21 lbs .01 ton	13 5
Substation	Up to 18,000 gsf	5	lbs/1,000 sq ft/day	90 lbs .05 ton	16
Total				**34,161 lbs 17 tons**	**6,235**
Existing Industrial*	46,150 sq ft	5	lbs/1,000 sq ft/day	231 lbs .12 ton	42
Net New Total				**33,930 lbs ~17 tons**	**6,193**

Source:
[a.] California Department of Resources Recycling and Recovery. 2023. *Estimated Solid Waste Generation Rates.* Available: https://www2.calrecycle.ca.gov/wastecharacterization/general/rates. Accessed: February 1, 2023.
*For existing industrial uses, the largest building currently onsite was used for this analysis.
Disposal rates are based on industrial use rates.
gsf = gross square feet; sq ft = square feet; lbs = pounds

The amount of solid waste produced on the Project site would be small compared to the remaining daily permitted capacity at Newby Island Landfill. Therefore, the Project would be served by a landfill with adequate permitted capacity and able to accommodate the Project's solid waste disposal needs. Furthermore, the City currently has a contract with the owners of Newby Island Landfill, which will provide disposal capacity through 2024. Newby Island Landfill is currently in the process of seeking authorization from San José to expand its permitted capacity and accept an additional 15.1 million cubic yards of solid waste. If the landfill is not available and able to accept waste, the City will prepare a contract with another landfill with the needed capacity, such as Guadalupe Mines in San José, which is not anticipated to close until 2048. The City does not have any other plans to enter into an agreement with another disposal facility prior to 2024. Therefore, the Project can be served by a landfill with capacity, and the Project's impact related to solid waste and landfill capacity would be ***less than significant.***

Cumulative Impacts

The geographic context for the analysis of cumulative utilities and service systems impacts is the service area of the utility provider and the projects in Chapter 3, *Environmental Impact Analysis*. The geographic

context for cumulative impacts related to wastewater treatment is the wastewater treatment facility service area. With regard to water facilities and storm drainage, the geographic context would be the City. The geographic context for cumulative impacts related to solid waste is the Newby Island Landfill service area, including San José, Milpitas, Santa Clara, Cupertino, Los Altos, and Los Altos Hills. In addition, the geographic context for cumulative impacts related to electricity is Pacific Gas and Electric's service area in Northern California.

Over time, growth throughout the City and county would result in increased demand for water, wastewater treatment, solid waste disposal, natural gas, electricity, and telecommunications. Table 3.12-2 in Section 3.12, *Population and Housing*, presents Association of Bay Area Governments (ABAG) population estimates and projections for 2025 through 2040 pertaining to the City, county, and Bay Area (Marin, Sonoma, Napa, Solano, Contra Costa, Alameda, Santa Clara, San Mateo, and San Francisco Counties).

The City had approximately 130,127 residents within its jurisdictional boundary in 2022. The population is projected to increase from 137,215 in 2025 to approximately 159,500 by 2040, according to the ABAG projections. This represents a 15-year population increase of approximately 22,285. The projections also indicate an increase in the number of jobs, growing from 151,310 in 2025 to approximately 170, 575 by 2040. This represents a 15-year jobs increase of approximately 19,265. The population in the county would increase by 439,625, and the number of jobs would increase by 130,760 by 2040. Citywide and countywide growth would also generate increased demand for utilities. With regard to local water, wastewater, and storm drain infrastructure, nearby cumulative development is also relevant. The cumulative projects in the vicinity of the Project site are described in Table 3-1, Section 3.0, *Environmental Impact Analysis*, of this EIR. This cumulative analysis examines the effects of the Project in the relevant geographic area in combination with other current projects, probable future projects, and projected future growth.

Regarding water supply, the Project analysis above (Impact UT-2) is inherently cumulative because it is based on demand and supply projections for the City, as presented in the 2020 UWMP. For the reasons stated above, the impact would be less than significant, and this topic is not discussed further.

Impact C-UT-1: Cumulative Utilities Impacts. The Project, in combination with other foreseeable development in the vicinity, would not require or result in the construction of new water, wastewater, stormwater treatment, electricity, or telecommunication facilities; result in a determination of inadequate wastewater treatment capacity; or generate solid waste in excess of State or local standards. (Less than Significant)

Construction

Construction of the cumulative projects identified in Chapter 3, *Environmental Impact Analysis*, such as the Patrick Henry Specific Plan and Freedom Circle Focus Area, would be temporary and would use existing utility connections for construction purposes to connect with water, wastewater, stormwater, electrical, and telecommunication systems. In addition, construction of the cumulative projects and the Project would not permanently increase wastewater generation or solid waste generation. Therefore, a significant cumulative impact during construction of the Project and cumulative projects would not result. This impact would be ***less than significant***, and no mitigation would be necessary.

Operation

Water Supply Facilities

As mentioned above, the Project is serviced by Valley Water, which has a service area that includes all of Santa Clara County, which is at the southern end of San Francisco Bay. The county encompasses approximately 1,300 square miles and has a population of about 1.9 million. Most water use occurs on the valley floor between the Santa Cruz Mountains to the west and the Diablo Range to the east. Santa Clara County is home to Silicon Valley, and the valley floor is highly urbanized. Southern Santa Clara County has some urban development, but much of the land use is still rural and agricultural.

The region's water supply infrastructure follows Valley Water's Water Supply Master Plan 2040.[31] The master plan looks ahead at how water needs and water supply may change over the next 20 years. This accounts for population growth, aging water infrastructure that will require maintenance and renewal, additional regulations and land use changes, and climate changes that may alter the Sierra Nevada snowpack, resulting in longer and more severe droughts. The master plan's annual Monitoring and Assessment Program provides a mechanism for adapting to changing supply and demand conditions, climate change, regulatory and policy changes, other risks, and uncertainty. Through regular monitoring of specific projects and overall conditions, Valley Water would assess whether changes to master plan strategies or projects are needed. The evaluation of alternative projects would be based on their impacts related to the water supply reliability, costs, relationships with other projects, risks and opportunities, and stakeholder input. Any changes to the master plan would be reflected in the annual process for setting the water rate, the Capital Improvement Program, and the budget. As such, there would be no cumulative impacts from development on the City's water supply facilities. Therefore, the Project would not result in cumulatively considerable impacts related to water supply facilities because the master plan accounts for facility planning, which includes the Project and Project region. This impact would be ***less than significant***, and no mitigation would be necessary***.***

Wastewater Treatment Facilities and Capacity

As described in the Project's Sewer Study, future (2035) sewer conditions were evaluated, which assumes development would continue in the City. Under future (2035) conditions for sewer option 2A, the peak wet-weather flow reaching the Tasman Lift Station would be 0.47 mgd, which is less than its estimated firm capacity of 1.5 mgd. Similarly, under future (2035) conditions for sewer option 3A, the peak wet-weather flow reaching the Tasman Lift Station would be 0.52 mgd, which is also less than its estimated firm capacity of 1.5 mgd.

Flows to the Tasman Lift Station decrease in future conditions under both options because a number of improvements to the sewer system are planned, which would be implemented by 2035. Therefore, a significant cumulative impact on wastewater treatment facilities and capacity would not occur. This impact would be ***less than significant***, and no mitigation would be necessary***.***

Stormwater Treatment Facilities

Development in the City would consist primarily of redevelopment, which would not substantially increase impervious surfaces in the City. Existing regulations require new projects to address the need for stormwater treatment. As such, there would be no cumulative impacts from development on the City's

[31] Santa Clara Valley Water District. 2019. *Valley Water Master Plan 2040*. Available: https://www.valleywater.org/your-water/water-supply-planning/water-supply-master-plan. Accessed: February 1, 2023.

stormwater drainage facilities. Therefore, the Project would not result in a cumulatively considerable impact related to the stormwater treatment facilities. This impact would be ***less than significant***, and no mitigation would be necessary.

Solid Waste

The City has an arrangement with the Newby Island Landfill, as well as other landfills located outside of the county, to provide disposal capacity through 2041, according to CalRecycle. The Newby Island Landfill has a remaining disposal capacity of 16.4 million cubic yards, with a daily maximum of 4,000 cubic yards. The City's General Plan EIR determined that cumulative impacts related to solid waste disposal were significant; however, the Newby Island Landfill's closure date was extended from 2025 to 2041 in 2016. Therefore, there would be available capacity for the region, and no cumulative impacts related to solid waste would occur. Therefore, the Project would not result in a cumulatively considerable impact related to solid waste. This impact would be ***less than significant***, and no mitigation would be necessary***.***

Electricity, Natural Gas, and Telecommunications

The Project is expected to result in an increase in demand for electricity, an increase that could exceed the capacity of the existing electric distribution system. Therefore, an approximately 18,000 gsf electrical substation would be constructed onsite to support the Project. The at-grade substation would be located on the east side of the Project site, in Area C, and have no parking above or below. This substation could also support electrical needs at the adjacent Santa Clara North area. SVP will coordinate the precise size, dimensions, and layout of the substation during the design phase of the Project.

The substation would be maintained by the City's public utility provider, SVP. SVP's 2018 Strategic Plan addresses the challenges facing the utility over the next 10 years. The plan allows the City's electric utility to be agile, transparent, and accountable as SVP prepares for future challenges and accounts for the increase in electricity demand and facility planning. As such, there would be no cumulative impacts from development on the City's electricity, natural gas, and telecommunications facilities. The Project would not result in a cumulatively considerable impact related to electricity, natural gas, and telecommunications. This impact would be ***less than significant***, and no mitigation would be necessary***.***

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Chapter 4
Other CEQA Considerations

4.1 Significant and Unavoidable Environmental Impacts

Section 21100(b)(2)(A) of the California Environmental Quality Act (CEQA) requires a Draft Environmental Impact Report (EIR) to identify any significant environmental effects that cannot be avoided if a proposed project is implemented. Many impacts identified in the Mission Point Project (Project) would be either less than significant or mitigated to a less-than-significant level. However, the Project would also result in significant impacts that cannot be mitigated to less-than-significant levels, even with mitigation adopted. These impacts are listed below.

Significant and Unavoidable Project-Level Impacts

The significant and unavoidable impacts listed below would result from the Project, despite the City of Santa Clara (City) adopting mitigation measures to help reduce the impacts.

- **Cumulatively Considerable Net Increase in Criteria Pollutants.** The Project would result in a cumulatively considerable net increase in a criteria pollutant for which the Project region is classified as a nonattainment area under an applicable federal or state ambient air quality standard (AQ-2). Mitigation Measures AQ-2.1, Use Clean Diesel-Powered or Electric Equipment during Construction to Control Construction-related Emissions, AQ-2.2, Implement Bay Area Air Quality Management District Basic Construction Mitigation Measures to Reduce Dust Emissions, AQ-2.3, Require Low-VOC Coatings During Project Construction and Operation, AQ-2.4, Use Low-VOC Cleaning Supplies, AQ-2.5, Replace Gas Powered Landscape Equipment with Zero-Emission Landscape Equipment, and AQ-2.6, U.S. Environmental Protection Agency Tier 4 Final Stationary Emergency Generators, would be implemented but would not reduce the impact to less than significant.
- **Substantial Pollutant Concentrations**. The Project would expose sensitive receptors to substantial pollutant concentrations (AQ-3). Mitigation Measures AQ-2.1 through AQ-2.6 would be implemented but would not reduce the impact to less than significant.
- **Construction Noise.** The Project would generate a substantial temporary increase in ambient noise levels in the vicinity of the Project site due to construction activities; such noise levels would exceed standards established in a local general plan or noise ordinance or applicable standards of other agencies (NOI-1). Mitigation Measure NOI-1.1, Construction Noise Reduction Control Plan, would be implemented but would not reduce the impact to less than significant.
- **Ground-borne Vibration and Noise Levels.** The Project would generate excessive ground-borne vibration or ground-borne noise levels (NOI-3). Mitigation Measure NOI-3.1, Pile Driving Vibration Reduction Plan, would be implemented but would not reduce the impact to less than significant.

Significant and Unavoidable Cumulative Impacts

The following significant and unavoidable cumulative impacts associated with the Project would occur, despite the City adopting mitigation measures or relying on regional adopted plans and programs to help reduce the impacts to less-than-significant levels.

- **Cumulatively Considerable Net Increase in Criteria Pollutants**. The Project in combination with other foreseeable development in the vicinity would result in a cumulatively considerable net increase in criteria pollutants for which the Project region is classified as a nonattainment area under an applicable federal or State ambient air quality standard (C-AQ-2). Mitigation Measures AQ-2.1 through AQ-2.6 would be implemented but would not reduce the impact to less than significant.
- **Cumulative Substantial Pollutant Concentrations**. The Project in combination with other foreseeable development in the vicinity would expose sensitive receptors to substantial pollutant concentrations (C-AQ-3). Mitigation Measures AQ-2.1, AQ-2.2, and AQ-2.6 would be implemented but would not reduce the impact to less than significant.
- **Cumulative Construction Noise.** The Project in combination with other foreseeable development in the vicinity would generate a substantial temporary increase in ambient noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies. (C-NOI-1). Mitigation Measure NOI-1.1 would be implemented but would not reduce the impact to less than significant.
- **Cumulative Ground-borne Vibration and Noise Levels**. The Project, in combination with other foreseeable development in the vicinity, would generate excessive ground-borne vibration or ground-borne noise levels (C-NOI-3). Mitigation Measure NOI-3.1 would be implemented but would not reduce the impact to less than significant.

4.2 Significant Irreversible Environmental Changes

Section 15126.2(d) of the State CEQA Guidelines requires a Draft EIR to evaluate the significant irreversible environmental changes that could be caused by a proposed project should it be implemented and identify irreversible environmental changes, such as those involving a large commitment of nonrenewable resources or irreversible damage resulting from environmental accidents.

The 4,913,000 gross square feet (gsf) of development that would result from the Project would require the use of materials such as steel and copper as well as fossil fuels. The source metals used, unless they come from recycled materials, would represent an irreversible use of resources. Fossil fuels used during construction would represent an irreversible use of oil and natural gas.

As discussed in Section 3.5, *Energy*, during construction, the Project would consume an estimated 2,982,717 million gallons of diesel fuel, 666,165 gallons of gasoline, and 35,287,514 kilowatt-hours (kWh) of electricity. The Project's operational energy demand is estimated below.

- **Electricity**: The Project would consume approximately 254,284 million British thermal units (BTUs) of electricity per year, which would represent an increase in electricity demand of 252,648 million BTUs per year compared with existing electricity demand on the Project site (i.e., 1,636 million BTUs per year).
- **Natural Gas**: The Project could consume approximately 0.17 million BTUs of natural gas per year, which is less than the existing natural gas use on the Project site (1,925 million BTUs per year). Natural gas would also be consumed as part of vehicle fuel consumption during Project operations.
- **Other Fuel:** The Project would consume up to approximately 537,344 million BTUs of transportation fuel per year during normal operations, including diesel, gasoline, electricity, and natural gas (for Project-generated vehicle trips), along with electricity/gasoline for hybrid applications. This represents an increase in fuel demand over existing conditions.

To the extent that electricity for the Project comes from renewable sources (e.g., hydropower, sun, wind, geothermal), it would not represent an irreversible use of resources. However, to the extent that electricity for the Project comes from non-renewable sources (e.g., natural gas, coal, nuclear), it would represent an irreversible use of those resources.

4.3 Growth-Inducing Impacts

Section 15126.2(e) of the State CEQA Guidelines states that an EIR should discuss "… the ways in which a project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Growth can be induced in a number of ways, including through the elimination of obstacles to growth; through the stimulation of economic activity within the region, including the generation of significant employment opportunities; or through precedent-setting action. CEQA requires a discussion of how a project could increase the population, employment, or housing in areas surrounding the project as well as an analysis of the infrastructure and planning changes that would be necessary to implement the project.

This section of the EIR discusses the manner in which the Project could affect growth in the city and the larger Bay Area. In accordance with State CEQA Guidelines Section 15126.2(e), this discussion of growth inducement is not intended to characterize the Project as necessarily beneficial, detrimental, or of little significance to the environment. This growth inducement discussion is provided for informational purposes so that the public and local decision-makers have an appreciation of the potential long-term growth implications of the Project. Although CEQA requires a disclosure of growth inducement effects, an EIR is not required to anticipate and mitigate the effects of a particular project on growth in other areas. Growth inducement has the potential to result in an adverse impact if the growth is not consistent with or accommodated by the land use plans and growth management plans and policies for the area affected. Because the general plan of a community defines the location, type, and intensity of growth, a general plan is the primary means of regulating development and growth in a community.

In discussing growth inducement, it is useful to distinguish between direct and indirect growth. Direct growth occurs on a project site as a result of new facilities (buildings) being constructed or an increase in developed space. As discussed in Chapter 2, *Project Description*, direct growth associated with the Project would result in up to 4,913,000 gsf of development, which includes up to 3 million gsf of office/research-and-development (R&D) uses, along with 100,000 gsf of neighborhood-serving retail, 10,000 gsf of childcare, and up to 1.8 million gsf of residential uses (i.e., up to 1,800 residential units).

Indirect growth occurs beyond a project site but is stimulated by a project's direct growth. Indirect growth is tied to increased direct and indirect investment and associated spending, such as the expenditure patterns of the employees associated with a project. For example, if the Project is implemented, future workers would spend money in the local economy, and the expenditure of that money would result in additional jobs. The indirect jobs generated by a project, referred to as the "multiplier effect," tend to be relatively close to places of employment but may occur at more distant locales as well.

The term *induced growth*, as used in the State CEQA Guidelines, means all growth—direct, indirect, and otherwise defined.

As discussed in Section 3.1, *Land Use and Planning,* and Section 3.12, *Population and Housing,* for land use planning consistency purposes, the Project's projected office/R&D-related jobs (and 3 million gsf of office/R&D space), were accounted for in the City of Santa Clara 2010–2035 General Plan (General Plan) and, thus, factored into Plan Bay Area 2040. However, the proposed 100,000 gsf of neighborhood retail,

10,000 gsf of childcare, and up to 1,800 new multifamily residential units were not accounted for in the General Plan or Plan Bay Area 2040. The Project's 1,800 new residential units are also not accounted for in the City of Santa Clara's Housing Element; these would further offset demand for new housing in the city and region. It is not anticipated that the Project would induce further growth in the city or region that is not accounted for in the City's General Plan and/or Plan Bay Area.

An electric substation is proposed onsite to meet the anticipated energy demand of the Project. The substation would be located on the east side of the Project site. The substation is currently proposed to serve the Project site only, although it could include the capacity needed to serve adjacent planned developments as well if desired. If additional capacity were included, it could facilitate development in the immediate area; however, this growth would be in line with what is anticipated under the City's General Plan and Plan Bay Area. The additional capacity would have the potential to influence developers with respect to where they choose to develop, without affecting the overall amount of development within the city.

As discussed in Section 3.12*, Population and Housing,* the Project is an infill development within an already-developed area of the city, and the employment growth under the Project is largely accounted for in the General Plan as well as regional growth plans, such as Association of Bay Area Governments (ABAG) projections. The Project would increase the supply of housing in the city by providing 1,800 new housing units. Although the Project would generate 544 employees beyond what was assumed for the site under the General Plan, the indirect regional housing demand generated by these additional employees would constitute approximately 0.07 percent of household growth expected in the Bay Area between 2025 and 2040, which is minimal. Because the Project would construct housing, anticipated housing demand in the city can be accommodated in the city, and the level on unanticipated housing demand in the region would be small. The Project, therefore, is not anticipated to induce further growth beyond than anticipated in the City's General Plan or Plan Bay Area.

4.4 Cumulative Impacts

State CEQA Guidelines Section 15355 defines cumulative impacts as "…two or more individual effects that, when considered together, are considerable or compound or increase other environmental impacts." The combination of the Project with other feasible projects in the vicinity or region affected by the Project defines the cumulative scenario.

Cumulative impacts and the Project's contribution to cumulative impacts are discussed in Sections 3.1 through 3.15 of this EIR. These sections identify feasible mitigation measures to reduce the Project's cumulatively considerable contributions to significant cumulative impacts to less than cumulatively considerable. The sections also identify those cumulative impacts for which the Project's contribution would remain cumulatively considerable, even with implementation of feasible mitigation measures. Please refer to the aforementioned sections of the Draft EIR for a discussion of cumulative impacts.

4.5 Urban Decay

Methodology and Definition of Urban Decay

This section evaluates the potential for the Project to result in urban decay due to its retail operations. CEQA does not have a formal definition for *urban decay*; however, in *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004), 124 Cal. App. 4th 1184 (Bakersfield Citizens), the Court of Appeal determined that State CEQA Guidelines Section 15064 requires urban decay research and analysis when the economic or social effects of a project cause a physical change. This change is to be regarded as a significant effect in the same manner as any other physical change resulting from a project. Section 15131(A) of CEQA states that "Economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes."

Urban decay can occur if a project causes an adverse economic impact so severe that stores close as a consequence and the resulting vacant buildings and/or properties, rather than being reused within a reasonable time, remain vacant once closed. Examples of physical deterioration include, but are not limited to, abandoned buildings and commercial sites, boarded-up doors and windows, long-term unauthorized use of properties and parking lots, extensive gang or offensive graffiti painted on buildings, dumping of refuse or overturned dumpsters on properties, dead trees or shrubbery, extensive litter, uncontrolled weed growth, and homeless encampments.

The Project proposes a mixed-use development on a 48.6-acre site in Santa Clara, California. If approved, the Project would demolish existing office buildings and establish a new mixed-use neighborhood by modifying the existing zoning from Light Industrial (ML) to Planned Development (PD). New development would include residential uses, office/R&D space, neighborhood retail uses, and childcare facilities, along with community space.

This EIR evaluates the potential for the proposed retail component of the Project to result in urban decay. This assessment for the potential for urban decay was prepared by BAE Urban Economics (BAE). The full report is included as Appendix 4 to this EIR.

The Project includes a neighborhood retail component of 100,000 gsf, which is expected to generate retail and related sales (Table 4-1). Project residents and workers are predicted to make retail purchases within this retail component of the Project. The urban decay analysis provides an estimate of the potential capture of the retail expenditures of residents and workers and estimates the level of support the residents and workers will provide for the retail component of the Project.

Table 4-1. Summary Description of Project

Project Components	Gross Square Footage/Units
Residential	
Gross Square Feet	1,800,000
Units	1,800
Office	3,000,000
Neighborhood Retail	100,000
Child Care	10,000
Total	4,913,000

Source: BAE, 2022.

The non-retail elements of the Project are not considered likely to result in potential urban decay. As described above, there is a shortage of residential housing units in light of the employment levels in Santa Clara. This is also true in most of the San Francisco Peninsula. As a result, the addition of housing with the Project would not result in the abandonment of housing elsewhere that might otherwise result in urban decay due to the strong and continued demand for housing in proximity to Silicon Valley. For the Project's office/R&D element, one of the driving rationales for the Project is the strong demand for office/R&D space to support continued economic growth in Silicon Valley, which has been one of the strongest areas of job growth in California, and the country, for a prolonged period of time. Although there have been periodic downturns, after each recovery, the region has continued to post employment gains, and the current evidence supports a conclusion that there will continue to be demand for new office/R&D space. The rise in commercial rents is another strong supporting piece of evidence. Thus, the additional office/R&D space is not likely to result in the abandonment of existing office/R&D space that might otherwise result in urban decay. Therefore, as explained in detail in the following sections, the Project is not projected to result in urban decay by itself or in combination with other retail developments in Santa Clara or surrounding communities.

Residential Expenditures

The Project is slated for 1.8 million gsf of residential uses in 1,800 units of various sizes. The retail portion of the Project, due to its proximity to the residential uses in the Project, would be patronized by those residents (Table 4-2).

Table 4-2. Resident Spending

Factor	Amount
Residential Units	1,800
Average Persons per Unit	2.15
Total Residents	3,870
Annual Spending per Resident	$12,000
Total Annual Resident Spending	$46,440,000
Capture in Project	25%
Spending within Project	$11,610,000
Spending Elsewhere	$34,830,000

Source: BAE, 2022.

The urban decay analysis assumes an average of 2.15 persons per unit, as estimated by Keyser Marston Associates, for a total of 3,870 residents. Resident retail spending is based on per capita retail sales for Santa Clara County,[1] using reported 2021 taxable sales adjusted to include nontaxable items but excluding motor vehicle–related sales, which would be unlikely to occur on the Project site. The resulting average annual spending per capita is approximately $12,000 at the types of stores that would most likely be located within the Project site. Total spending within the Project site for the assumed retail types is estimated to be $46.4 million annually.

Due in part to the more limited offerings within the Project site compared to other nearby retail nodes, including the proposed region-serving retail businesses at the nearby Related Santa Clara project, it is unlikely that local residents would make the majority of their purchases at the neighborhood retail establishments within the Project site. It has been conservatively estimated that the Project would capture only 25 percent of resident non-auto-related purchases internally, which equates to total sales of $11.6 million annually, with the remaining $34.8 million in sales occurring elsewhere in the area. Retail sales occurring in 2022 are detailed in Table 4-3. A household income comparison for the city and county of Santa Clara is provided in Table 4-4.

Table 4-3. Retail Sales in Santa Clara County

Type of Business	2021 Taxable Sales	$ for Potential Tenants in Project	Percent Taxable	Total Sales
Motor Vehicle and Parts Dealers	$4,650,531,805			
Home Furnishings and Appliance Stores	$1,693,074,595	$1,693,074,595	100%	$1,693,074,595
Building Material and Garden Equipment and Supplies Dealers	$2,184,176,687			
Food and Beverage Stores	$1,353,702,149	$1,353,702,149	33%	$4,102,127,724
Gasoline Stations	$2,004,222,510			
Clothing and Clothing Accessories Stores	$2,156,255,503	$2,156,255,503	100%	$2,156,255,503
General Merchandise Stores	$2,599,117,457	$2,599,117,457	85%	$3,057,785,244
Food Services and Drinking Places	$4,523,548,981	$4,523,548,981	100%	$4,523,548,981
Other Retail Group	$6,027,986,143	$6,027,986,143	85%	$7,091,748,404
Total Retail and Food Services	$27,192,615,830			$22,624,540,450
Total Population, 2022				1,907,693
Sales per Capita in Selected Categories				$11,860

Note: Excludes unallocated taxable sales. Percent taxable based on BAE analysis of retail sales, comparing economic census data with data from the California Department of Tax and Fee Administration.
Source: BAE, 2022.

[1] Some employees in cities within Silicon Valley, like Santa Clara, are long-distance commuters from areas outside the Bay Area, such as San Joaquin County, who take advantage of relatively lower housing prices in outlying areas and the relatively higher salaries and/or availability of jobs in Silicon Valley.

Table 4-4. Household Income Comparison, City and County of Santa Clara

Jurisdiction	Median Household Income ($)
City of Santa Clara	$136,870
County of Santa Clara	$130,890

Note: Incomes are in 2020 dollars.
Source: BAE, 2022.

Worker Expenditures

In addition to resident spending, the retail component of the Project would benefit from spending by the workers in the proposed 3 million gsf of office space. Table 4-5 provides an estimate of office worker spending with the Project.[2]

Table 4-5. Office Worker Spending

Factor	Amount
Office Space in Project (gsf)	3,000,000
Square Feet per Worker	250
Total Workers	12,000
Annual Spending per Worker in Project	$4,000
Total Worker Expenditures in Project	$48,000,000

Sources: BAE, 2022. See Table 4.6 for detailed calculations.

Using an industry "rule of thumb" standard of 250 square feet per office worker, as estimated by Keyser Marston Associates, the Project would have 12,000 office workers. To estimate per worker spending, BAE used *Office-Worker Retail Spending in a Digital Age*, published by the International Council of Shopping Centers (ICSC). ICSC periodically publishes reports with information from surveys of office workers regarding their daytime expenditures near the workplace; the most recent version is from 2012. The report compiled survey responses from workers in downtown and suburban locations according to the types of stores where they shop and the typical weekly expenditures in the various store types. For this analysis, store types were selected that might be found in the proposed neighborhood retail component of the Project. The analysis then estimated capture by store type, converted the weekly expenditures to an annual figure, and used the Consumer Price Index to convert the estimate to 2022 dollars. Annual expenditures per worker are estimated at $4,000, with overall expenditures by all office workers associated with the Project at $48 million. Expenditures by Project workers elsewhere near the Project site are estimated at $26.4 million, as shown in Table 4-6.

[2] Although additional workers would be associated with other components of the Project, the estimate here is conservatively limited to office workers.

Table 4-6. Office Worker Expenditures

	Mean Weekly Expenditures, Suburban Workers	Potential Tenant in Project	% Capture in Project	Estimated Weekly Sales in Project
Transportation	$37.67	—	—	—
Online Purchases Made at the Office (personal)	$42.47	—	—	—
Full-Service Restaurants	$13.06	$13.06	50%	$6.53
Fast Food/Deli/Lunch Eateries	$15.80	$15.80	75%	$11.85
Department Stores	$9.03	—	—	—
Discount Stores	$11.33	—	—	—
Drug Stores	$7.60	$7.60	75%	$5.70
Grocery Stores	$21.58	$21.58	75%	$16.19
Clothing Stores	$4.43	$4.43	25%	$1.11
Shoe Stores	$3.40	—	—	—
Sporting Goods Stores	$3.49	—	—	—
Electronics/Phone/Computer Stores	$8.93	$8.93	75%	$6.70
Jewelry Stores	$3.75	—	—	—
Office Supplies/Stationery/Novelty Gifts and Cards	$7.41	$7.41	75%	$5.56
Warehouse Clubs	$12.32	—	—	—
Other Goods (florist, non-food vendors, etc.)	$3.75	$3.75	75%	$5.56
Personal Care Shops	$5.76	$5.76	50%	$2.88
Personal Services	$4.97	$4.97	50%	$2.49
Other Services (not elsewhere classified)	$4.90	—	—	—
Entertainment (sporting events, live theater, concerts, movies)	$5.01	$5.01	25%	$1.25
Total ($)	—	$98.30	—	$63.06
Total Work Weeks per Worker				48
Annual Sales per Worker in Project in 2011 Dollars				$3.027
Consumer Price Index Adjustment, 2011–2021				1,327
Annual Sales per Worker in Project in 2022 Dollars				**$4,000**
Annual Sales Elsewhere near Work				**$2,200**
Total Workers				**12,000**
Total Annual Sales from Workers in Project in 2022 Dollars (rounded)				**$48,000,000**
Total Annual Sales Elsewhere from Workers in Project in 2022 Dollars (rounded)				**$26,400,000**

Note: Excludes unallocated taxable sales. Percent taxable based on BAE analysis of retail sales, comparing economic census data with data from the California Department of Tax and Fee Administration.
Sources: BAE, 2022.

Total Retail Expenditures and Sales per Square Foot

Total retail spending from residents and workers associated with the Project is estimated at $59.6 million annually, as shown in Table 4-7. Assuming that the retail outlets occupy 80 percent (80,000 gsf) of the 100,000 gsf total, with non-retail tenants such as banks, insurance offices, personal care businesses, and fitness-related businesses occupying the remainder (along with some vacancies), sales to residents and workers associated with the Project would generate approximately $745 in sales per square foot annually.

Table 4-7. Total Spending and Sales per Square Foot

Factor	Amount
Total Expenditures for Workers and Residents	$59,610,000
Retail Square Footage as Percentage of Total	80%
Net Retail Square Footage	80,000
Sales per Square Foot	$745

Sources: BAE, 2022.

Conclusions

The sales-per-square-foot number, as detailed in Table 4-7, is within the range of performance for successful national retail chains. For example, based on the company's most recent annual report, Walmart's U.S. store division generated sales of approximately $560 per square foot in the most recent fiscal year ending January 2022. Similarly, The Home Depot reports sales of $605 per square foot in its most recent fiscal year, also ending January 2022. The Project's retail performance is thus estimated to be well supported from its own residents and workers. Furthermore, it is assumed here that the majority of the Project's resident retail expenditures and approximately one-third of Project worker expenditures near the Project site would occur offsite. As a result, the Project would allow for a net increase in supportable retail space outside the Project site itself. It would not cause an adverse economic impact that would result in store closures or, ultimately, result in the adverse physical change of urban decay by itself or in combination with other retail developments in Santa Clara or surrounding communities.

Chapter 5
Alternatives Analysis

5.1 Introduction

The California Environmental Quality Act (CEQA) (Public Resources Code [PRC], Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.) require that an environmental impact report (EIR) "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic project objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives" (State CEQA Guidelines Section 15126.6 [a]). An EIR does not need to consider every conceivable alternative to the project; rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation.

Because an EIR identifies ways to mitigate or avoid significant effects that a project may have on the environment, the discussion of alternatives should focus on alternatives to the project or its location that are capable of avoiding or substantially lessening significant effects of the project. The EIR needs to include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project, the significant effects of the alternative should be discussed but in less detail than the significant effects of the project. If mitigation measures or a feasible project alternative that would meet most of the basic project objectives would substantially lessen the significant environmental effects of a project, then the lead agency should not approve the project unless it determines that specific technological, economic, social, or other considerations make the mitigation measures or the project alternative infeasible (PRC Section 21002, State CEQA Guidelines Section 15091[a][3]).

The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. CEQA states that an EIR should not consider alternatives "whose effect cannot be ascertained and whose implementation is remote and speculative." The EIR must also identify alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and should briefly explain the reasons underlying the lead agency's determination (State CEQA Guidelines 15126.6[c]).

One of the alternatives that must be analyzed is the "No Project" Alternative. The no-project analysis must discuss the existing conditions at the time the Notice of Preparation (NOP) is published as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved and development continued to occur in accordance with existing plans and consistent with available infrastructure and community services (State CEQA Guidelines Section 15126.6[e][2]). Therefore, pursuant to the State CEQA Guidelines, this chapter discusses and analyzes two no project alternatives: the No Project Alternative, which is a continuation of current uses, and the Code Compliant Alternative, which is future development consistent with the adopted City of Santa Clara 2010–2035 General Plan (General Plan), which is considered the second no project alternative.

In addition to the two no project alternatives, this chapter identifies additional alternatives (i.e., Reduced Scale Alternative, Reduced Office/Increased Housing Alternative) to the Mission Point Project (Project) and discloses the impacts of each. This chapter also provides a description of the alternatives and

compares the significant environmental impacts of the alternatives to the significant environmental impacts of the Project as proposed and discusses additional construction sequence alternatives that modify the order in which the four areas could be constructed. The construction sequence alternatives include the Simultaneous Project Construction Alternative, No Overlapping Construction Alternative, Residential Uses Constructed First Alternative, and Residential Uses Constructed Last Alternative. Finally, this chapter identifies alternatives to the Project that were considered but rejected from further consideration.

5.2 Project Objectives and Environmental Impacts

As discussed in Chapter 2, *Project Description*, the City of Santa Clara (City) and Project Sponsor have identified the following objectives, which are relevant to the physical impacts considered in this document:

- Support the City's North Santa Clara planning effort by converting an underutilized single-use, 48.6-acre site to a vibrant, pedestrian-oriented high-intensity and very high-density mixed-use development that is sustainable and inclusive by design, with a range of building types, enriching connections between people, places, and open space.
- Broaden the housing supply and business opportunities in North Santa Clara through development of a human-centric, interconnected urban neighborhood that provides a diverse and complementary mix of residential, commercial, retail and community.
- Promote an active pedestrian realm with continuous access to at-grade, podium-level, and rooftop public and private open space with flexible programming.
- Promote and support local, regional, and State of California (State) mobility and greenhouse gas (GHG) reduction objectives to reduce vehicle miles traveled (VMT) and infrastructure costs through infill and mixed-use development in an existing urbanized and transit-rich area.
- Facilitate ridership of multimodal transportation and minimize vehicular infrastructure while providing efficient access to sufficient and flexible parking that meets current and future demand.
- Provide community benefits, including public open space, childcare facilities, and community space.
- Provide utility infrastructure to adequately support the Project.
- Meet the City’s Affordable Housing Ordinance and Inclusionary Zoning requirements.
- Develop a model for urban growth that maximizes the Project site’s economic, cultural, and ecological potential; generates tax revenue for the City; creates permanent and construction-related jobs; and contributes to achievement of the City’s VMT goals.

The Project Sponsor has identified the following additional objectives:

- Redevelop the 48.6-acre site with up to 3 million gross square feet (gsf) of office/research-and-development (R&D) and laboratory space, 100,000 gsf of neighborhood retail space, and 1,800 multifamily residences by consolidating, on a smaller portion of the property, the square footage for office/R&D assumed in the City’s General Plan to accommodate the new multifamily housing, including affordable housing, along with public and private parks and open space, neighborhood-serving services and retail, a substation, and community amenity space.

- Allow flexibility and ensure an orderly build-out of the Project, based on projected market demand and other factors, such as local and regional growth, Project financing, and development of final construction plans, to ensure the Project remains economically feasible throughout a multi-year development process.
- Create a vibrant, walkable new neighborhood with a diverse and complimentary mix of uses that is sustainable by design and supports the City's VMT goals, while realizing a market return on the property reflecting the cost of development.
- Privatize existing Democracy Way while preserving appropriate public and emergency vehicle access.

Significant/Unavoidable and Significant Project-Level Impacts

This EIR has identified four significant and unavoidable impacts that would result from the Project:

- Air Quality (cumulatively considerable net increase in criteria pollutants and substantial pollutant concentrations)
- Noise (construction noise and ground-borne vibration)

This EIR has identified 23 significant impacts that would be reduced to less than significant with mitigation measures that would result from the Project:

- Transportation (consistency with adopted plans, ordinances, or policies regarding roadways, transit, bicycle facilities, and pedestrian facilities, hazards due to design features, and emergency access)
- Greenhouse Gas (generate GHG emissions during construction and operations)
- Energy (wasteful/inefficient/unnecessary consumption of energy resources)
- Noise (operational noise)
- Cultural Resources (archaeological resources and human remains)
- Biological Resources (nesting birds and bats, interfere with the movement of native migratory wildlife species)
- Geology/Soils (soil instability and paleontological resources)
- Hydrology and Water Quality (water quality, groundwater supplies, drainage patterns, release of pollutants due to inundation, and conflicts with a water quality control plan or groundwater management plan)
- Hazards (accidental release of hazardous materials)
- Tribal Cultural Resources (tribal resources discovery)
- Utilities and service systems (utility relocation, construction, or expansion)

5.3 Description of Alternatives Considered

The alternatives to the Project are meant to feasibly attain most of the basic Project objectives while avoiding or substantially lessening its significant impacts, which are listed above in Section 5.2. Based on the goal of reducing the Project's significant impacts while meeting the basic Project objectives listed above, the City has developed the following eight alternatives for evaluation in this Draft EIR: No Project Alternative (Continuation of Existing Uses), No Project (Code Compliant) Alternative, Reduced Scale Alternative, Reduced Office/Increased Housing Alternative, and four Construction Sequence Alternatives.

The alternatives are described below and compared in Table 5-1. In addition, Figures 5-1 through 5-3 show conceptual site plans for the Code Compliant Alternative, Reduced Scale Alternative, and Reduced Office/Increased Housing Alternative. The construction sequence alternatives are not shown graphically in this chapter because they have the same site plan as the Project (Figure 2-3 in Chapter 2, *Project Description*).

- **No Project Alternative (Continuation of Existing Uses):** No additional construction would occur at the Project site with implementation of the No Project Alternative. The existing 142,050 gsf of light industrial buildings would be occupied with tenants permitted under the existing zoning. In addition, the existing paved surface parking lot south of Democracy Way, with approximately 5,081 parking spaces, would continue to operate as under current conditions (i.e., temporary parking for events at Levi's Stadium, which uses 3,300 parking spaces). The rest of the parking spaces are used by Amazon as training grounds for drivers.
- **Code Compliant Alternative:** The Code Compliant Alternative, considered the second no project alternative, is based on what would be reasonably expected to occur in the foreseeable future if the Project were not approved and development continued to occur in accordance with the City General Plan and Zoning Code. Under this alternative, development would occur consistent with the site's High-Intensity Office/R&D General Plan designation. This designation allows for "high-rise or campus-like developments for corporate headquarters, R&D and supporting uses, with landscaped areas for employee activities." Permitted uses include offices and prototype R&D uses with an allowance of a maximum floor area ratio (FAR) of 2.00. Therefore, the Project site could be developed with up to approximately 4.2 million gsf of office/R&D space.
- **Reduced Scale Alternative:** The Reduced Scale Alternative would reduce development on the Project site by 30 percent proportionately as compared to the Project. This alternative would result in up to 3,440,000 gsf of new development, including approximately 1,260,000 gsf of residential uses (up to 1,260 units), approximately 2,180,000 gsf of office/R&D space, neighborhood retail uses, and other uses, such as childcare facilities and community and conference space. In addition, the amount of space for public parkland, private recreational amenities, publicly accessible open space, and private open space would also be reduced by 30 percent, resulting in approximately 7 acres of public parkland, 4 acres of publicly accessible open space, and 7 acres of other private open space for residential and office uses.
- **Reduced Office/Increased Housing Alternative:** Under the Reduced Office/Increased Housing Alternative, the overall office square footage would be reduced and the overall number of housing units would increase. This would be accomplished by removing all 789,000 gsf of office/R&D space in Area C and replacing it with 800 multifamily housing units. The substation would be relocated to Area B. The size of the substation and all other Project characteristics (e.g., public parkland, private recreational amenities, private open space, parking, access and circulation) would remain the same under this alternative.

Table 5-1. Comparative Description of the Project Alternatives

	Existing	Project	No Project Alternative	Code Compliant Alternative	Reduced Scale Alternative	Reduced Office/ Increased Housing Alternative	Construction Sequence Alternatives
Site Area (acres)	48.6	48.6	48.6	48.6	48.6	48.6	48.6
Maximum Building Heights[a]	18 feet	Podium Commercial: up to eight stories (108 feet); Tower Commercial: Up to 11 stories (153 feet) Podium Residential: up to seven stories (85 feet); Tower Residential: up to 20 stories (202 feet)	Same as Existing	Up to 12 stories (200 feet)	Commercial: up to six stories (76 feet); Podium Residential: up to four stories (49 feet); Tower Residential: up to 16 stories (147 feet)	Same as Project	Same as Project
Total Building (area and uses)	142,050 gsf	Up to total of 4,913,000 gsf (residential, commercial, office/R&D, neighborhood retail, childcare, community amenities)	142,050 gsf (office/R&D)	Up to 4,200,000 gsf (office/R&D)	Up to 3,440,000 gsf (residential, office/R&D, neighborhood retail, childcare, community amenities)	Similar to Project: up to 4,913,000 gsf (residential, office/R&D, neighborhood retail, childcare, community amenities)	Same as Project
Total Residents	0	3,870	0	0	2,709	5,590	Same as Project
Total Net New Employees[b]	N/A	12,544	296	9,333	8,796	9,408	Same as Project
Total Net New Employees Compared to General Plan[c]	N/A	544	-6,371	2,646	-1,615	-1,207	Same as Project

	Existing	Project	No Project Alternative	Code Compliant Alternative	Reduced Scale Alternative	Reduced Office/ Increased Housing Alternative	Construction Sequence Alternatives
Parking	5,081 surface parking spaces	Approximately 9,400[d] structured and underground parking spaces	5,081 surface parking spaces	14,000[e] structured and underground parking spaces	6,580[f] structured and underground parking spaces	Same as Project	Same as Project
Publicly Accessible Parks/Open Space	0	16 acres	0	0	11 acres	16 acres	16 acres
Infrastructure Improvements	N/A	Yes[g]	Potentially	Potentially	Same as Project	Same as Project; substation may relocate to Area B	Same as Project

Notes:

a. "[T]he height of a structure shall be measured as the vertical distance from the elevation of the finished grade to the highest point of the structure. This would be the coping of a flat roof, or the deck line of a mansard roof, or to the highest gable of a pitched or hip roof." See [proposed] Santa Clara City Code Section 18.30.040.

b. The employee calculations for the No Project Alternative and Code Compliant Alternative uses an office employee generation rate of 450 employees/square foot, according to the General Plan. The Project and all other alternatives use the Project-specific office employee generation rate of 250 employees/square foot.

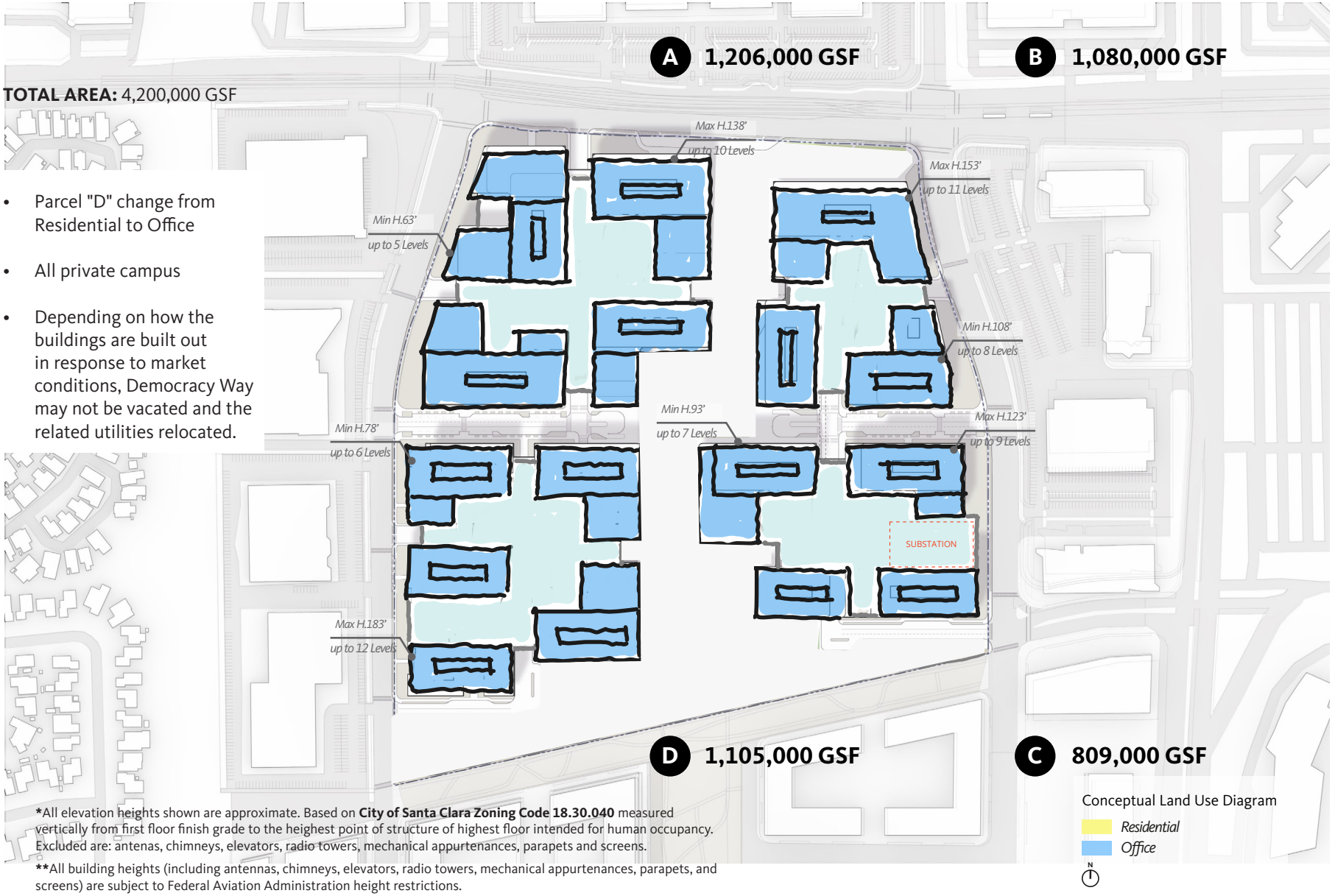
c. Net new employees accounts for the estimated number of employees under the alternative minus existing onsite employees (20 employees) and employees assumed under the General Plan (6,667 employees). These employee calculations are used only in the Land Use and Population and Housing sections of this chapter and EIR.

d. The Project's parking supply needs have been analyzed and adequate parking is proposed to meet the Project's demand.

e. Based on parking ratio of up to one parking spaces per 300 gsf of office building area, consistent with Chapter 18.74.010 of the City Municipal Code (Off-street Parking Regulations). Note that under Assembly Bill 2097, the Code Compliant Alternative would not necessarily be required to provide any parking onsite because of the site's proximity to transit.

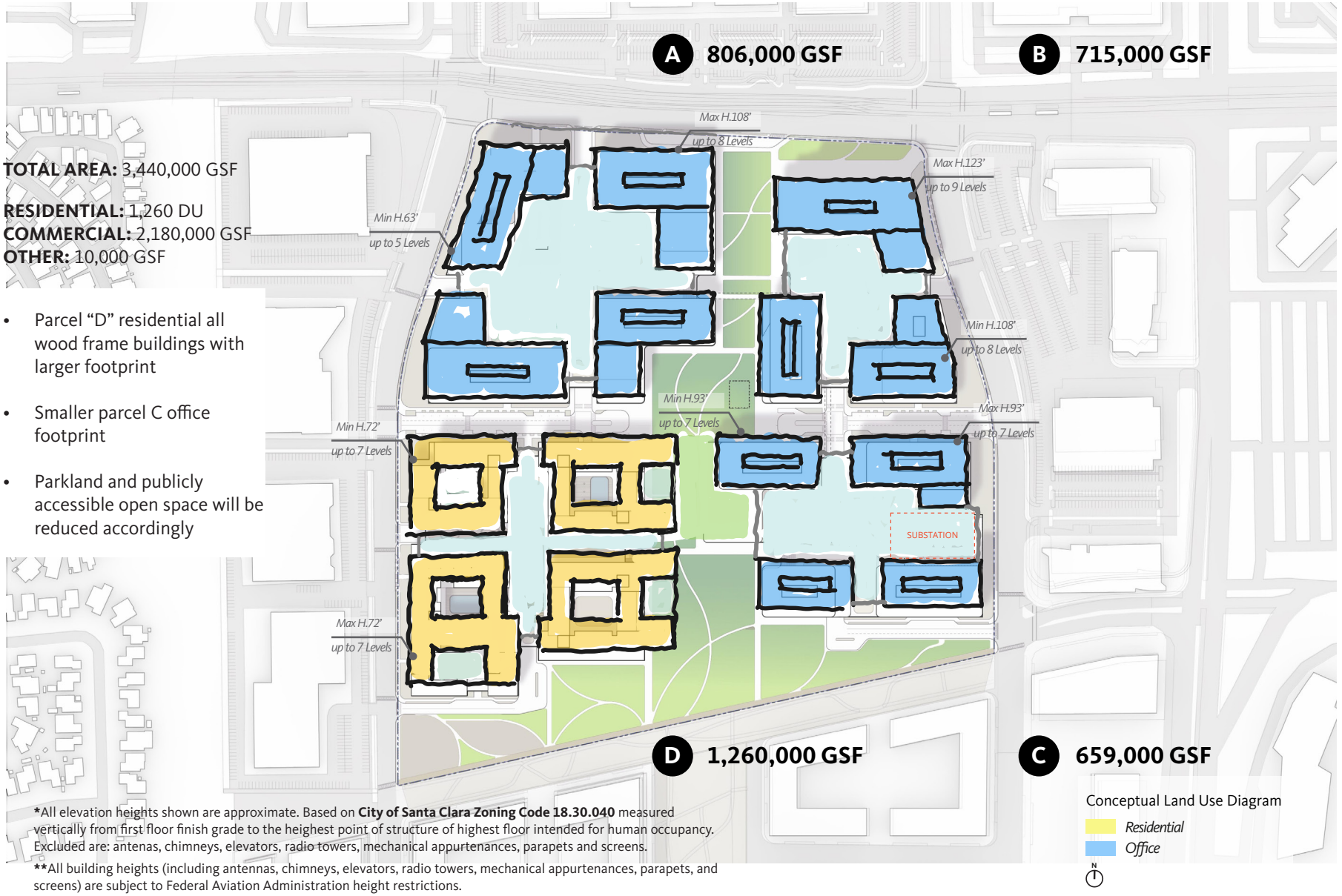
f. Based on 30 percent reduction (9,400 parking spaces)

g. Build-out of the Project includes vacation of Democracy Way, which requires relocation of utilities.



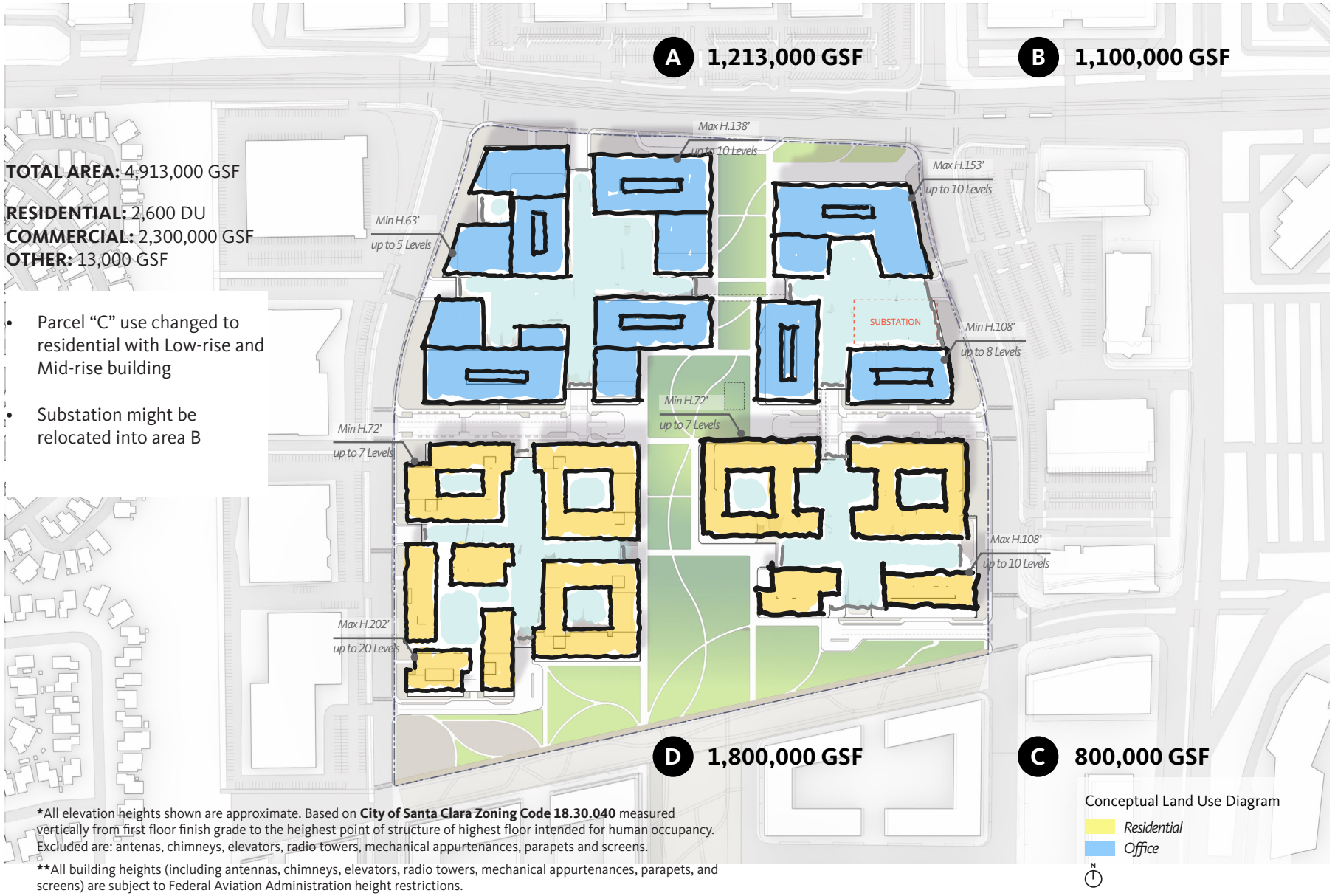
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Figure 5-1
Conceptual Site Plan – Code Compliant Alternative
Mission Point Project



ICF Graphics - 103980 (07-23-2023) JC

Figure 5-2
Conceptual Site Plan – Reduced Scale Alternative
Mission Point Project



ICF Graphics - 103980 (07-23-2023) JC

Figure 5-3
Conceptual Site Plan – Reduced Office/Increased Housing Alternative
Mission Point Project

- **Construction Sequence Alternatives:** Under this alternative, four different construction scenarios were developed that modify the order in which the four areas could be constructed. All other Project characteristics and assumptions would remain the same under each Construction Sequence Alternative as under the Project, including total development potential, types of land uses, parking, open space, access, and circulation. The following Construction Sequence Alternatives are analyzed, with further details below:
    - Simultaneous Project Construction Alternative
    - No Overlapping Construction Alternative
    - Residential Uses Constructed First Alternative
    - Residential Uses Constructed Last Alternative

No Project Alternative (Continuation of Existing Uses)

No additional construction would occur at the Project site with implementation of the No Project Alternative. Under the No Project Alternative, the existing conditions at the Project site would not change. The existing four light industrial buildings would remain on the northern portion of the site, one is currently occupied by the Project Sponsor and the other three buildings are vacant. However, under the No Project Alternative, the existing buildings, totaling 142,050 gsf, would be leased with the permitted uses, per the allowed zoning (e.g., research offices and laboratories, light manufacturing facilities, professional and administrative offices). Assuming a conservative scenario in which all four existing buildings would be leased to the maximum occupancy, the No Project Alternative would add approximately 296 new employees compared to existing conditions.[1] The onsite features associated with the buildings would also remain. The existing paved surface parking lot south of Democracy Way (approximately 5,081 total parking spaces) would continue to operate as its current primary use for temporary event parking for events at Levi's Stadium, which uses 3,300 parking spaces. The rest of the parking spaces are used by Amazon as driver training grounds. For development projects, "the 'no project' alternative is the circumstance under which the Project does not proceed,"[2] and the analysis of this alternative is mandatory under State CEQA Guidelines Section 15126.6(e)(1).

Code Compliant Alternative

The Code Compliant Alternative, considered the second no project alternative, is based on what would be reasonably expected to occur in the foreseeable future if the Project were not approved and development continued to occur in accordance with the City General Plan and Zoning Code. The City Zoning Code is currently being updated; thus, this alternative assumes the Project will be implemented subsequent to the City Zoning Code update, which proposed to update the site's zoning to be consistent with the existing General Plan designation of High-Density Office/R&D. This existing General Plan zoning designation allows for "high-rise or campus-like developments for corporate headquarters, R&D and supporting uses, with landscaped areas for employee activities." Permitted uses include offices and prototype R&D uses with an allowance of a maximum floor area ratio (FAR) of 2.00. Under the City Zoning Code update, the Project site would be zoned High-Intensity Office/R&D (HO-RD). Table 5-2 summarizes the uses under the Code Compliant Alternative.

[1] Using the General Plan employee generation rate of 450 gsf per employee (142,050 gsf/450 gsf = 315 employees – 20 existing employees = 296 net new employees).

[2] CEQA Section 15126.6(e)(3)(B).

The HO-RD zoning provides areas for the construction, use, and occupancy of office/research and development uses, ancillary data centers, limited manufacturing, and employee-serving retail. The intent of this zone is to encourage the development of compact and urbanized developments that include a mix of mid- to high-rise structures in a richly landscaped campus park like industrial setting. Manufacturing may not occupy more than 10 percent of the structure floor area.[3] No residential use is permitted.

Table 5-2. Code Compliant Alternative

Use	Project Development Potential	Code Compliant Alternative Development Potential
Residential	Up to 1,800,000 gsf (1,800 units)	0 units
Commercial (Office/R&D, Neighborhood Retail)	Up to 3,100,000 gsf	Up to 4,200,000 gsf
Other (Childcare, Community Amenity)	Up to 13,000 gsf	0 gsf[a]
Total	*Up to 4,913,000 gsf*	*Up to 4,200,000 gsf*
Electrical Substation	Up to 18,000 gsf	Up to 18,000 gsf
Publicly Accessible Open Space	Up to 16 acres	0 acres
Parking Spaces	Up to 9,400 spaces	Up to 14,000 spaces

Source: Kylli, Inc., 2023.

Note:

a. Although the Code Compliant Alternative could include retail, childcare, community amenities, and/or open spaces, these uses are not required under the code. Therefore, for purposes of this analysis, it is assumed that all uses at the Project site would be office/R&D, along with the electrical substation.

The Code Compliant Alternative assumes demolition of the existing four buildings and that new development would occur in compliance with the updated City Zoning Code as a single project or multiple code-compliant projects over time. The zoning for High-Intensity Office/R&D includes the following zoning standards:

- Maximum FAR = 2.00 (not including commercial support uses)
- Maximum height = 200 feet and subject to Federal Aviation Administration (FAA)
- Maximum number of stories = 12
- Off-Street Parking Regulations = Chapter 18.38
- Performance Standards = Chapter 18.40

Under the Code Compliant Alternative, the Project would not require a General Plan amendment or Zoning Code amendment. The existing zoning standards would allow an approximately 4.2 million gsf office/R&D project to be developed on approximately 48.6 acres or 2,117,016 square feet. Using the employee generation rates assumed in the General Plan, this would generate up to approximately 9,333 net new employees.[4] Development of the Code Compliant Alternative does not necessarily require vacation of Democracy Way or the infrastructure improvements associated with the vacation. Other amenities, such as park and open space, neighborhood-serving retail, and/or childcare or community amenity space, may

[3] City of Santa Clara. 2022. *Chapter 18.16 – Office and Industrial Zones (LO-RD, HO-RD, LI, HI).* Available: https://santaclaraca.konveio.com/city-santa-clara-zoning-code-update.

[4] Consistent with the generation rate used in the General Plan (refer to Appendix 8.6 to the General Plan), industrial/office/R&D uses generate approximately one employee per 450 square feet, resulting in approximately 9,333 net new employees.

not be provided because it is not required by the code. It is also not assumed that the Code Compliant Alternative would include a substation for Silicon Valley Power; however, for purposes of this alternatives analysis, a substation is included. Figure 5-1 shows the conceptual site plan for the Code Compliant Alternative.

Reduced Scale Alternative

The Reduced Scale Alternative was developed to lessen impacts associated with air quality, GHG, energy, and noise. Office users are primarily responsible for generating these impacts; therefore, decreasing the amount of office space, as proposed in the Reduced Scale Alternative, would reduce these impacts. The Reduced Scale Alternative would reduce development on the Project site by approximately 30 percent proportionately compared to the Project. As shown in Table 5-3 and Figure 5-2, this alternative would result in up to 3,440,000 gsf of new development, including approximately 1,260,000 gsf of residential uses (up to 1,260 units) and approximately 2,180,000 gsf of commercial uses (office/R&D space, neighborhood retail uses, childcare facilities, and community amenity space). In addition, the amount of publicly accessible open space and private open space would also be reduced by the same percentage, resulting in approximately 4 acres of publicly accessible open space, 7 acres of public parks, and 7 acres of private open space for residential and office uses. For purposes of this analysis, it is assumed that the Project site would remain the same (48.6 acres). As shown on Figure 5-2, building footprints are expected to be larger, while building heights would be reduced compared to the Project. Commercial buildings would be up to six stories (76 feet), podium residential would be up to four stories (49 feet), and tower residential would be up to 16 stories (147 feet).

Likewise, the number of parking spaces included as part of this alternative would be reduced to 6,580 spaces. However, the overall reduction in scale and development intensity would not apply to the underground parking structures, the substation, or site access or circulation, which, to develop the Reduced Scale Alternative, would be required to be essentially the same as the Project. The single-level underground parking structure would be maintained, and the above-grade podium parking would be reduced in size to achieve the 30 percent reduction in parking. In addition, the substation size would remain the same as under the Project, and the internal site access and circulation would remain the same. As under the Project, Democracy Way would still be vacated and then incorporated south of its existing alignment to become the private Kylli Drive East and West. All utilities would also be upgraded and relocated as described for the Project.

Table 5-3. Reduced Scale Alternative

Use	Project Development Potential	Reduced Scale Alternative Development Potential
Residential	Up to 1,800,000 gsf (1,800 units)	Up to 1,260,000 gsf (1,260 units)
Commercial (Office/R&D, Neighborhood Retail, Childcare, Community Amenity)	Up to 3,113,000 gsf	Up to 2,180,000
Total	*Up to 4,913,000 gsf*	*Up to 3,440,000 gsf*
Electrical Substation	Up to 18,000 gsf	Up to 18,000 gsf
Public Park/Publicly Accessible Open Space	Up to 16 acres	Up to 11 acres
Parking Spaces	Up to 9,400 spaces	Up to 6,580 spaces

Source: Kylli, Inc., 2023.

The Reduced Scale Alternative would result in fewer onsite residents and employees as compared to the Project. Applying a 30 percent reduction, the Reduced Scale Alternative would result in approximately 2,709 onsite residents and approximately 8,796 net new onsite employees. The number of construction haul trips would be approximately the same as the Project because the underground parking structure and infrastructure relocation (related to Democracy Way vacation) would remain largely the same as proposed under the Project, with similar excavation totals and associated haul trips.

Reduced Office/Increased Housing Alternative

The Reduced Office/Increased Housing Alternative was developed to further improve the jobs/housing imbalance in the city and region, as described in Section 3.1, *Land Use*, and Section 3.12, *Population and Housing*. Decreasing the amount of office space and increasing the amount of housing would further contribute to a better jobs-to-housing ratio. Under the Reduced Office/Increased Housing Alternative, the overall office square footage would be reduced and the overall number of housing units would increase.

This would be accomplished by removing all 789,000 gsf of office/R&D space in Area C and replacing it with approximately 800 multifamily housing units. The retail uses, amenities, open space and substation would all remain the same in Area C as under the Project. All other land use and development assumptions in Areas A, B, and D would remain the same as under the Project. Thus, as shown below in Table 5-4 and Figure 5-3, the Reduced Office/Increased Housing Alternative would result up to 4,913,000 gsf of new development, including up to 2,600 housing units, approximately 2,300,000 gsf of commercial space (office/R&D space), and approximately 13,000 gsf of other uses, such as childcare facilities and community and conference space. Under this alternative, the substation would be located in Area B. The size of the substation and other Project characteristics (public and private open space, parking, access and circulation) would remain the same under this alternative, as would the construction assumptions and truck trips.

The Reduced Office/Increased Housing Alternative would result in more onsite residents than the Project, but less onsite employees. It would result in approximately 5,590 residents, compared to 3,870 residents under the Project, and approximately 9,408 net new employees.

Table 5-4. Reduced Office/Increased Housing Alternative

Use	Project Development Potential	Reduced Office/Increase Housing Alternative Development Potential
Residential	Up to 1,800 units	Up to 2,600 units
Commercial (Office/R&D, Neighborhood Retail)	Up to 3,100,000 gsf	Up to 2,300,000 gsf
Other (Childcare, Community Amenity)	Up to 13,000 gsf	Up to 13,000 gsf
Total	*Up to 4,913,000 gsf*	*Up to 4,913,000 gsf*
Electrical Substation	Up to 18,000 gsf	Up to 18,000 gsf
Publicly Accessible Open Space	Up to 16.2 acres	Up to 16.2 acres
Parking Spaces	Up to 9,400 spaces	Up to 9,400 spaces

Source: Kylli, Inc., 2023.

Construction Sequence Alternatives

The construction sequence alternatives were developed to lessen impacts on air quality criteria pollutants and/or health risks due to construction-related pollutants. Under the Project, construction in Area C would start in early 2025 and end in late 2028, for a total of approximately 960 working days. Construction in Area D would begin in late 2027 and end in early 2033 (approximately 1,355 working days), which is considered the resident construction exposure duration. Construction in Area B would begin in mid-2028 and end in mid-2032, for a total of approximately 1,105 working days. Construction in Area A would start in late 2029 and end in summer 2034, lasting approximately 1,272 working days. Construction in all four areas could overlap for several years. Each area would include demolition, excavation/grading, pile work, trenching, core/shell work, interior work, site work, and hauling.

Four different construction scenarios were developed that modify the order in which the four areas of the Project site could be constructed. All other Project characteristics and assumptions would remain the same under each construction sequence alternative as under the Project, including total development potential, types of land uses, parking, open space, access, and circulation.

- **Simultaneous Project Construction**: All areas would be constructed simultaneously and would take approximately 5.25 years to complete.
- **No Overlapping Construction**: Each area would be developed one at a time. Once one area is completed, the next area would begin construction so that no construction would overlap. This would take a total construction duration of 17.95 years.
- **Residential Uses Constructed First**: Area D would be constructed first, and the onsite residential uses would be exposed to the longest construction duration. This scenario would take approximately 7.96 years to complete.
- **Residential Uses Constructed Last**: Area D, the residential uses, would be constructed last, resulting in no onsite residential receptors. The total construction duration under this construction sequence would be approximately 8.26 years.

All other Project characteristics and assumptions would remain the same under each construction sequence alternative as under the Project, including total development potential, types of land uses, parking, open space, access, and circulation.

Simultaneous Project Construction Alternative

Under the Simultaneous Project Construction Alternative, all areas would be conservatively assumed to be constructed simultaneously and would take approximately 5.25 years to complete. Table 5-5 shows the construction schedule for this construction sequence.

Table 5-5. Simultaneous Project Construction Schedule

Development Area	Start Date	End Date	Total Duration
A, B, C, D	03/01/2025	5/31/2030	5.25

Source: Kylli Inc, 2022.

No Overlapping Construction Alternative

Under the No Overlapping Construction Alternative, each area would be conservatively assumed to be developed one at a time, with no full or partial overlap. Once one area is completed, the next area would begin construction so that no construction would overlap. This would take a total construction duration of 17.95 years. Similar to the Project, Area C would be constructed first, with Area D constructed next. Table 5-6 shows the construction schedule for each area under this construction sequence.

Table 5-6. No Overlapping Project Construction Schedule

Development Area	Start Date	End Date	Total Duration
C	3/1/2025	11/3/2028	3.68 years
D	11/4/2028	1/6/2034	5.18 years
B	1/7/2034	3/26/2038	4.22 years
A	3/27/2038	2/6/2043	4.87 years

Source: Kylli Inc., 2022.

Residential Uses Constructed First Alternative

The Residential Uses Constructed First Alternative would be the worst-case scenario for the proposed onsite residential uses. Area D would be constructed first, and the onsite residential uses would be exposed to the longest construction duration. As shown in Table 5-7, this scenario would take approximately 7.96 years to complete, with partial overlaps in construction sequencing. The first 5.18 years would be for construction of the residential uses in Area D. Thus, future onsite residential receptors would be exposed to a total construction emissions duration of 2.78 years.

Table 5-7. Residential Uses First Project Construction schedule

Development Area	Start Date	End Date	Total Duration
D	3/01/2025	5/3/2030	5.18 years
C	3/31/2026	12/7/2029	3.69 years
B	3/31/2027	6/20/2031	4.22 years
A	3/31/2028	2/11/2033	4.87 years
Resident Construction Exposure Duration – Area D	5/3/2030	2/11/2033	2.78 years

Source: Kylli Inc., 2022.

Residential Uses Constructed Last Alternative

The Residential Uses Constructed Last Alternative would construct Area D, the residential uses, last. Since Area D would be constructed last, there would be no onsite residential receptors. The total construction duration under this construction sequence would partially overlap and last approximately 8.26 years,[5] as shown in Table 5-8.

[5] The total construction duration of the Residential Uses Constructed Last Alternative is different from the duration of the Residential Uses Constructed First Alternative due to slight differences in the number of days required to construct each area.

Table 5-8. Residential Uses Constructed Last Project Schedule

Development Area	Start Date	End Date	Total Duration
C	3/01/2025	11/3/2028	3.68 years
B	3/31/2026	6/21/2030	4.23 years
A	3/31/2027	2/13/2032	4.88 years
D	3/31/2028	6/3/2033	5.18 years

Source: Kylli Inc., 2022.

5.4 Attainment of Project Objectives

An evaluation of how each alternative meets or does not meet the basic Project objectives is provided below and summarized in Table 5-9. Pursuant to State CEQA Guidelines Section 15126.6(a), this analysis compares the alternatives to the objectives of the Project. The following analysis describes the extent to which these alternatives meet or do not meet the Project objectives as described in Chapter 2, *Project Description*, and discussed above.

No Project Alternative

The No Project Alternative would not meet the primary objective of supporting the City's planning efforts by converting an underutilized single-use site to a vibrant pedestrian-oriented high-intensity mixed-use development. Instead, the Project site would continue to support the existing four light industrial buildings, only one of which is occupied by the Project Sponsor. In addition, the existing paved surface lot would continue as parking for events at Levi's Stadium and Amazon driver training grounds. Because none of the proposed mixed-use buildings would be constructed, a mix of residential, commercial, retail, and community uses would not be provided. The city's housing supply would not be broadened. Because the site would be underutilized with minimal uses, the No Project Alternative would not promote the objective of supporting local, regional, and State mobility and GHG reduction objectives through infill development in transit-rich areas. The Project site would also not be developed with the proposed open spaces and interconnected pedestrian pathways and, therefore, would not meet the objective of promoting an active pedestrian realm with public and private open spaces with flexible programming. These objectives would not be met. Because the Project site would continue to be underutilized, the No Project Alternative would not facilitate ridership of multimodal transportation, but would continue to meet the objective of providing sufficient and flexible parking for current and future demands. The No Project Alternative would not develop a model for urban growth that maximizes the Project site's economic, cultural, and ecological potential and would not generate additional tax revenue for the City. Therefore, the No Project Alternative would not meet the basic Project objectives.

Table 5-9. Alternatives – Attainment of Project Objectives

Objectives	Project	No Project Alternative	Code Compliant Alternative	Reduced Scale Alternative	Reduced Office/ Increased Housing Alternative	Construction Sequence Alternatives
City Objectives						
Support the City's North Santa Clara planning effort by converting an underutilized single-use, 48.6-acre site to a vibrant, pedestrian-oriented high-intensity and very high-density mixed-use development that is sustainable and inclusive by design, with a range of building types, enriching connections between people, places, and nature.	Yes	No	No	Yes	Yes	Yes
Broaden the housing supply and business opportunities in North Santa Clara through development of a human-centric, interconnected urban neighborhood that provides a diverse and complementary mix of residential, commercial, retail, and community uses.	Yes	No	No	Yes	Yes	Yes
Promote an active pedestrian realm with continuous access to at-grade, podium-level, and rooftop public and private open space with flexible programming.	Yes	No	Partially	Yes	Yes	Yes
Promote and support local, regional, and State of California (State) mobility and greenhouse gas (GHG) reduction objectives to reduce vehicle miles traveled (VMT) and infrastructure costs through infill and mixed-use development in an existing urbanized and transit-rich area.	Yes	No	No	Yes	Yes	Yes
Facilitate ridership of multimodal transportation and minimize vehicular infrastructure while providing efficient access to sufficient and flexible parking that meets current and future demand.	Yes	No	Yes	Yes	Yes	Yes

Objectives	Project	No Project Alternative	Code Compliant Alternative	Reduced Scale Alternative	Reduced Office/ Increased Housing Alternative	Construction Sequence Alternatives
Provide community benefits, including public open space, childcare, and community space.	Yes	No	No	Yes	Yes	Yes
Provide utility infrastructure to adequately support the Project.	Yes	No	Yes	Yes	Yes	Yes
Meet the City's Affordable Housing Ordinance and Inclusionary Zoning requirements.	Yes	No	Yes[6]	Yes	Yes	Yes
Develop a model for urban growth that maximizes the Project site's economic, cultural, and ecological potential; generates tax revenue for the City; creates permanent and construction-related jobs; and contributes to achievement of the City's VMT goals.	Yes	No	No	Yes	Yes	Yes
Project Sponsor Objectives						
Redevelop the 48.6-acre site with up to 3 million gsf of office/R&D space, 100,000 gsf of neighborhood retail space, and 1,800 multifamily residences by consolidating, on a smaller portion of the property, the square footage of office/R&D assumed in the City's General Plan to accommodate new multifamily housing, including affordable housing, along with public and private parks and open space, neighborhood-serving services and retail, a substation, and community amenity space.	Yes	No	No	No	No	Yes
Allow flexibility and ensure an orderly build-out of the Project, based on projected market demand and other factors, such as local and regional growth, Project financing, and development of final construction plans, to ensure the Project remains economically feasible throughout a multi-year development process.	Yes	No	Yes	No	Potentially	Yes

[6] Payment of in lieu fee only.

Objectives	Project	No Project Alternative	Code Compliant Alternative	Reduced Scale Alternative	Reduced Office/ Increased Housing Alternative	Construction Sequence Alternatives
Create a vibrant, walkable new neighborhood with a diverse and complementary mix of uses that is sustainable by design and able to support the City's VMT goals while realizing a market return on the property reflecting the cost of development.	Yes	No	No	No	Potentially	Yes
Privatize existing Democracy Way while preserving appropriate public and emergency vehicle access.	Yes	No	Potentially	Yes	Yes	Yes

Source: Kylli Inc., 2022.

Code Compliant Alternative

The Code Compliant Alternative, the second no project alternative, would not require a General Plan amendment or Zoning Code amendment. The zoning standards of the forthcoming zoning code update would allow an approximately 4.2 million gsf of office/R&D project to be developed, with no residential uses or related public park or open space, neighborhood retail, childcare, or community amenity space. Because the only use at the Project site would be office/R&D, the Code Compliant Alternative would not meet the primary objective of supporting the City's planning efforts by converting an underutilized single-use site to a high-intensity mixed-use development with a range of building types. Because only office/R&D uses would be constructed, the objective of providing a mix of residential, commercial, retail, childcare, and community uses would not be met. Although the Project site would no longer be underutilized, it would continue to be single-use. The Code Compliant Alternative would be subject to an affordable housing fee under the City's Affordable Housing Ordinance; however, the alternative would not provide new residential units or affordable housing units that would directly advance the goal to produce affordable and market-rate housing.

Although the Code Compliant Alternative would not meet all of the objectives of the Project, many of these objectives would be attained. Because the Code Compliant Alternative would develop a high-intensity office and/or R&D campus, this alternative would facilitate ridership of multimodal transportation and minimize vehicular infrastructure for the office tenants. The Code Compliant Alternative would also meet the objective of providing sufficient and flexible parking for current and future demands. However, the Code Compliant Alternative would not fully support local, regional, and State mobility and GHG reduction objectives to reduce VMT due to the single-use occupancy proposed and increased number of office/R&D employees. Because this alternative would not provide housing, it is expected that this development would not substantially contribute to the City's VMT goals, unless a robust Transportation Demand Management (TDM) program was implemented.

Under the Code Compliant Alternative, the Project site would very likely be developed with only private open spaces and interconnected pedestrian pathways at the office/R&D campus and, therefore, would only partially meet the objective of promoting an active pedestrian realm with public and private open spaces with flexible programming. Community benefits, including public open space and upgraded utility infrastructure, are not certain to be provided, depending how the area is developed over time; childcare and community amenity space would most likely not be included as part of the Code Compliant Alternative. It is also not certain if the Code Compliant Alternative would require vacation of Democracy Way and relocation of the existing utilities, propose as much underground parking, and/or provide a new substation, given the high cost associated with each of those aspects of the Project. The Code Compliant Alternative would provide permanent and construction-related jobs, contribute to urban growth, and generate additional tax revenue for the City. The Code Compliant Alternative would also allow the flexibility to build out in any order in response to market demand. On the whole, the Code Compliant Alternative would only partially meet the basic Project objectives.

Reduced Scale Alternative

The Reduced Scale Alternative would meet the majority of the Project objectives but to a lesser extent than the Project because of a reduction in floor area with similar base project costs. The Reduced Scale Alternative would reduce the proposed development at the Project site by approximately 30 percent but would still include a variety of uses, such as residential, office/R&D, neighborhood retail, childcare, and community space. Therefore, similar to the Project, the Reduced Scale Alternative would meet the primary

objective of supporting the City's planning efforts by converting an underutilized single-use site to a high-intensity mixed-use development with a range of building types. Because mixed-use buildings would be constructed, the objective of providing a mix of residential, commercial, retail, and community uses would be met, although to a lesser extent than the Project. The Reduced Scale Alternative would also provide housing at a similar ratio. Therefore, the city's housing supply would be broadened and the City's Affordable Housing Ordinance and Inclusionary Zoning requirements would be met.

Since the Reduced Scale Alternative would develop the site with a variety of uses, this alternative would facilitate ridership of multimodal transportation, minimize vehicular infrastructure, and provide sufficient and flexible parking for current and future demands. The Reduced Scale Alternative would also support local, regional, and State mobility and GHG reduction objectives to reduce VMT and infrastructure costs through infill and mixed-use development in an existing urbanized and transit-rich area.

Under the Reduced Scale Alternative, the Project site would be developed with public and private open spaces and interconnected pedestrian pathways, similar to the Project, but at a proportionately reduced amount. Therefore, this alternative would meet the objective of promoting an active pedestrian realm with public and private open spaces, with flexible programming, but to a lesser extent than the Project. Community benefits, including public open space, childcare facilities, community space, and upgraded utility infrastructure, would be provided but to a lesser extent than the Project. The Reduced Scale Alternative would generate additional tax revenue for the City but to a lesser extent than the Project. This alternative is likely to allow flexibility, based on market demand, because the Reduced Scale Alternative could be built out in any order to respond to the market. The alternative would also create permanent and construction-related jobs, although to a lesser extent due to the reduction in development. In addition, Democracy Way would be privatized under this alternative to allow this street to be more utilized than under existing conditions, and utility infrastructure would be upgraded. In light of the land cost, upfront cost from utility and infrastructure relocation and excavation for underground parking, and the reduced amount of revenue-generating development, it is unlikely that the Reduced Scale Alternative would be economically feasible. Therefore, the Reduced Scale Alternative would meet some but not all of the basic Project objectives—many to a lesser extent.

Reduced Office/Increased Housing Alternative

The Reduced Office/Increased Housing Alternative would meet the majority of the Project objectives but to a lesser extent than the Project because of a reduction in office floor area. The Reduced Office/Increased Housing Alternative would include the same amount of neighborhood retail, childcare, community amenities space as the Project. However, residential uses would be increased from 1,800 units to 2,600 units, while office uses would be decreased from 3 million gsf to approximately 2.21 million gsf. Because the Reduced Office/Increased Housing Alternative would provide additional housing, this alternative would more thoroughly accomplish the goal of broadening the city's housing supply and meeting the City's Affordable Housing Ordinance and Inclusionary Zoning requirements. In addition, since a variety of uses would be provided at the Project site, the Reduced Office/Increased Housing Alternative would meet the primary objective of supporting the City's planning efforts by converting an underutilized single-use site to a high-intensity mixed-use development with a range of building types. Similarly, the objective of providing a mix of residential, commercial, retail, and community uses would be met.

Since the Reduced Office/Increased Housing Alternative would develop the site with a variety of uses, this alternative would facilitate ridership of multimodal transportation, minimize vehicular infrastructure, and provide sufficient and flexible parking for current and future demands. The Reduced Office/Increased Housing Alternative would also support local, regional, and State mobility and GHG reduction objectives

to reduce VMT and infrastructure costs through infill and mixed-use development in an existing urbanized and transit-rich area.

Under the Reduced Office/Increased Housing Alternative, the Project site would be developed with the same amount of public and private open space and interconnected pedestrian pathways as the Project and, therefore, would meet the objective of promoting an active pedestrian realm with public and private open spaces with flexible programming. Community benefits, including public open space, childcare facilities, community space, and upgraded utility infrastructure, would be provided at the same level as the Project. The Reduced Office/Increased Housing Alternative would also develop a model for urban growth that would maximize the Project site's economic potential and generate additional tax revenue for the City, although to a potentially lesser extent with the decrease in office/R&D area. It is unknown at this time if an alternative with more housing and less office space would be more or less economically feasible than the Project because such considerations are dependent on market conditions. This alternative would very likely have the flexibility to be built out in any order, based on market demand. The alternative would create permanent and construction-related jobs, although to a lesser extent with respect to permanent office/R&D jobs due to the reduction in office uses. In addition, Democracy Way would be privatized under this alternative to allow this street to be more utilized than under existing conditions and utilities infrastructure would be upgraded. Therefore, the Reduced Office/Increased Housing Alternative is anticipated to meet most of the basic Project objectives but to a lesser extent than the Project.

Construction Sequence Alternatives

The construction sequence alternatives would include the same total development potential, types of land uses, parking, open space, access, and circulation as the Project. Therefore, these alternatives would meet all objectives related to proposed operations, except that, by setting a specific order or sequence for development, it would not meet the Project Sponsor's objective (i.e., allow the flexibility needed to build out in any order and ensure that the Project can respond to the market and remain economically feasible). The Simultaneous Project Construction Alternative would have a duration of 5.25 years but would increase the intensity of construction at one time on the full Project site. The No Overlapping Construction Alternative would not allow for flexibility with respect to development, with each area developed one at a time over approximately 17.95 years. The Residential Uses Constructed First Alternative and the Residential Uses Constructed Last Alternative, which would take 7.96 years and 8.26 years, respectively, would not allow the flexibility in the construction schedule needed to respond to the market. However, as with the Project, all construction sequence alternatives would create essentially the same number of construction-related jobs. Therefore, the construction sequence alternatives would meet all basic Project objectives, similar to the Project; however, if a particular order for build-out is fixed, they would not meet the Project Sponsor's objective of maintaining flexibility during the multi-year development process, responding to the market, and ensuring economic feasibility.

5.5 Alternatives Considered but Rejected

Section 15126.6(c) of the State CEQA Guidelines provides that an EIR should "identify any alternatives that were considered by the lead agency but rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination." The screening process for identifying the viable EIR alternatives included consideration of the following criteria:

- Ability to meet the basic Project objectives

- Potential ability to substantially lessen or avoid environmental effects associated with the Project
- Potential feasibility, taking into account economic, environmental, social, technological, and legal factors

The discussion below describes the alternatives that were considered during preparation and scoping for this EIR and provides the rationale for eliminating the alternatives from detailed consideration, such as a) they would not fulfill most of the basic objectives of the Project, b) they would not avoid or substantially lessen significant environmental impacts, c) or they would be infeasible.

Alternative Site Locations

State CEQA Guidelines Section 15126.6(f)(2) states that a Draft EIR must consider offsite alternatives if such alternatives reduce environmental impacts of the Project. As stated in State CEQA Guidelines, Section 15126.6(f)(1), factors that may be considered when a lead agency is assessing the feasibility of an alternative include:

> site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent).

Most of the potentially significant impacts of the Project would most likely occur regardless of location, meaning that an offsite alternative would not necessarily reduce or avoid any identified or potential environmental impacts. In addition, alternative locations for the Project are considered infeasible, because the Project Sponsor owns the Project site.

The 48.6-acre Project site is currently underutilized compared to the existing surrounding far denser land uses. The Project site is occupied by four light industrial buildings and paved surface parking. The Project Sponsor is currently using one of the buildings on the Project site; the other buildings are vacant. The current primary use of the Project site is temporary event parking for Levi's Stadium, which uses 3,300 parking spaces. For a property of this size in Santa Clara, these uses are not conductive to the surrounding area and can be better utilized. The Project site is uniquely located because it is in proximity to Levi's Stadium, the Santa Clara Convention Center, and Great America Amusement Park and well served by public transit. To capitalize on the advantageous location of the Project site, the Project is proposed as a development to achieve the City's objectives of converting an underutilized single-use site to a pedestrian-oriented high-intensity and very high-density mixed-use development that is sustainable and inclusive by design, with a range of building types, enriching connections between people, places, and nature.

Other than the Project site, there are no comparable large areas of land within the city where the Project could be relocated so as to meet the Project's objectives. Because of the unique and advantageous location of the Project site, even if there were a site of comparable size at another location within the city that was available for development (which there is not), that site would most likely not be able to support the City's North Santa Clara planning effort, which is a key Project objective. If the Project Sponsor were to secure control over a similar large site within the greater Bay Area but outside the city's boundaries, development of that site would not meet multiple objectives that have been specifically designed to benefit the city and its residents concerning the long-term development and use of this particular site within the city of Santa Clara. Therefore, relocating the Project outside of the city would essentially be a different project rather than an alternative to the Project itself. Furthermore, it is unlikely that relocating Project uses to a different site would avoid or substantially lessen any of the significant environmental impacts of the Project at its proposed location because the impacts associated with increased vehicle trips

(e.g., air quality and GHG impacts) are likely to be similar anywhere in the Bay Area. Other sites could result in potentially more severe trip-related impacts if the sites are not in an areas that are well served by transit options like the Project site. Thus, an offsite alternative would be infeasible because it would not attain most of the basic Project objectives and would not substantially reduce the Project impacts. Therefore, because of the aforementioned issues related to site suitability, economic viability, acquisition and control, and inconsistency with Project objectives, consideration of an alternative site for the Project has been rejected. This EIR does not analyze an alternative with an offsite location.

Proposed 2018 Project

In 2018, the Project Sponsor proposed to construct a similar project on the Project site. The Proposed 2018 Project would include up to 6.15 million gsf of residential uses (6,000 units), 3.65 million gsf of office buildings, 400,000 gsf of retail/community amenities, 300,000 gsf of hotel facilities, and 110,000 gsf of educational facilities. In total, the Proposed 2018 Project would include up to 10.61 million gsf of uses. Parking would be provided in subsurface and structured parking facilities. In addition, the Proposed 2018 Project would include up to 8 acres of public parkland and 8 acres of private open spaces throughout the Project site, new pedestrian and vehicular entrances and roadway networks, upgraded and expanded infrastructure, and a new electrical substation. Proposed tower heights would range from approximately 275 feet (approximately 24 stories) to 370 feet (approximately 33 stories) above street level. Non-tower buildings would range in height, but would typically be approximately 60 feet (approximately five stories) to 120 feet (approximately 11 stories), excluding the parapet and mechanical roof enclosures.

After extensive community outreach, the Project Sponsor voluntarily withdrew the Proposed 2018 Project as infeasible; therefore, this alternative has been rejected from further evaluation in this EIR.

Alternative Development Scenarios

Greater Reductions in Intensity

Reductions greater than 30 percent in the development intensity of the Project were evaluated as an alternative and determined to be economically infeasible due to the baseline costs associated with developing the site, including land cost and infrastructure costs (e.g., vacation of Democracy Way and related utility relocations, the high cost of site excavation and underground parking), as well as costs associated with providing the proposed community benefits (e.g., public park dedication, substation land and development, childcare and community space). As discussed above, under the Reduced Scale Alternative, it is uncertain if even a 30 percent reduction in the revenue-generating uses on the site would be economically feasible, with further reductions even less so. Therefore, alternatives with greater reductions in development intensity have been rejected from further evaluation in this EIR.

Residential and Open Space Only

A Residential and Open Space Only Alternative (Residential-Only Alternative) would consist of development of residential and open space uses only on the Project site.

Although the Residential-Only Alternative would reduce impacts related to commercial employees, this alternative would still require a similar amount of construction and, therefore, would not eliminate all of the significant and unavoidable impacts related to air quality and noise. In addition, the Residential-Only Alternative would not satisfy most of the basic Project objectives. Although this alternative would meet the objectives of providing public and private open space and an increased housing supply, it would not

meet the objectives that aim to provide high-intensity, mixed-use development, business opportunities, and community benefits. Since the Residential-Only Alternative would not provide a variety of uses, the objective to reduce VMT through mixed-use development would not be met. This alternative would limit the site's economic potential and local and regional growth by not including a range of development, such as office and retail uses. The Residential-Only Alternative would be inconsistent with City policies related to mixed-use development, reduced transportation impacts, and commercial development. Therefore, because the Residential-Only Alternative would not significantly reduce potential impacts, would be inconsistent with existing zoning, and would not meet the majority of Project objectives, this alternative has been rejected from further evaluation in this EIR.

5.6 Impact Assessment

This section evaluates whether the alternatives screened forward and evaluated in this Draft EIR would reduce the significant impacts of the Project to less-than-significant levels and/or would generate impacts other than those identified for the Project. Summarized lists of recommended mitigation measures for each alternative are provided in the analysis below; however, these mitigation measures are fully described in each resource section within Chapter 3, *Environmental Impact Analysis*, of this document. In addition, a summary comparative analysis of the Project and its alternatives is provided in Table 5-11 at the end of this section.

5.6.1 No Project Alternative

No additional construction would occur at the Project site with implementation of the No Project Alternative. Under the No Project Alternative, the existing conditions at the Project site would not change. The existing four light industrial buildings would remain on the northern portion of the site. One is currently occupied by the Project Sponsor; the other three buildings are vacant. The onsite features associated with the buildings would also remain. The existing paved surface parking lot south of Democracy Way, with approximately 5,081 total parking spaces, would continue to operate as it does currently, primary as a site for temporary parking for events at Levi's Stadium, which uses 3,300 parking spaces. The rest of the parking spaces are used by Amazon as training grounds for drivers.

5.6.1.1 Land Use

As with the Project, the No Project Alternative would not physically disrupt or divide an established community, resulting in no impact. (NI)

As described above, the existing buildings, totaling 142,050 gsf, would be leased with the permitted uses allowed under the zoning code (e.g., research offices and laboratories, light manufacturing facilities, professional and administrative offices). Assuming a conservative scenario in which all four existing buildings would be leased out to the maximum occupancy, the No Project Alternative would add approximately 296 net new employees. However, because the General Plan assumed that approximately 6,667 new employees would be located at the Project site, the No Project Alternative would result in a significant decrease in the number of onsite employees compared to what was previously assumed, resulting in no impact. (NI)

The No Project Alternative would not alter the existing buildings at the Project site and, therefore, would not change the existing land uses. The Project site would remain designated as High Intensity Office/R&D in the City's General Plan and light industrial (ML) under the City's Zoning Code. Unlike the Project, because

the No Project Alternative would be consistent with the current General Plan designations, it would not require a General Plan amendment or rezoning; it would be consistent with what was envisioned in the General Plan for the Project site. In addition, no buildings would be constructed; therefore, like the Project, no inconsistencies with the Airport Land Use Commission (ALUC) Comprehensive Land Use Plan (CLUP) would result. Therefore, the No Project Alternative would result in less-than-significant impacts on land uses and would not conflict with existing plans or policies. No mitigation measures would be required, resulting in fewer impacts than under the Project. (LTS)

5.6.1.2 Transportation

Under the No Project Alternative, the existing conditions at the Project site would not change. Thus, there would be no construction and no conflicts with applicable plans, ordinances, or policies addressing the circulation system. Under the No Project Alternative, average daily traffic (ADT) from the existing buildings within the Project site would be lower compared to the Project; however, VMT is typically evaluated on a per capita or per service population basis. The No Project Alternative would not qualify as a transit-supportive project because of its low FAR (< 0.75), thus the No Project Alternative's impact on VMT was evaluated using the Santa Clara Countywide VMT Evaluation Tool. The results of the VMT evaluation indicate that the existing VMT for office uses in the Project vicinity is 17.99 miles per employee per day. This is higher than the significance threshold of 14.14 daily miles per employee per day. Also, the No Project Alternative would not implement the improvements proposed by the Project for pedestrian, bicycle, and transit circulation and connectivity, and thus more single-occupant vehicle trips would be likely. In addition, this alternative would not include any residential uses; therefore, it would not address the city's existing jobs/housing imbalance. Because the No Project Alternative would not be subject to a public agency's discretionary funding or approval, it would not represent a project under CEQA. Thus, the exceedance of the VMT impact threshold by the existing uses would not represent a significant impact on VMT. (NI)

Because the No Project Alternative would not implement any changes to the existing circulation system, there would be no impact on transit facilities, bicycle facilities, or pedestrian facilities. There would also be no changes to existing roadways on the Project site. As a result, there would be no impacts related to hazards due to design features or incompatible uses. There would also be no impact on emergency access. These impacts would be reduced compared to the Project. (NI)

5.6.1.3 Air Quality

The No Project Alternative would not result in the construction of new uses and would not generate air emissions above existing conditions. Because no construction would occur, the No Project Alternative would not exceed the Bay Area Air Quality District's (BAAQMD's) daily significance thresholds for criteria pollutants during construction. During operations, the No Project Alternative would result in an increase in the number of daily trips (i.e., 1,294) compared to existing conditions because there would be a net increase in the number of employees at the site. However, the operational emissions would not exceed BAAQMD thresholds because the number of daily trips is comparatively small relative to the Project (i.e., 3 percent); therefore, the corresponding emissions would also be relatively small relative to the Project. Health risks experienced by existing sensitive receptors in the Project area would not change from existing conditions, and there would be no new receptors added; thus, the No Project Alternative would not introduce new significant health risks or concentrations of particulate matter with an aerodynamic diameter of 2.5 microns or less ($PM_{2.5}$), which would occur under the Project. Therefore, the No Project Alternative would result in less-than-significant impacts on air quality. No mitigation measures would be required; overall, there would be fewer impacts than under the Project. (LTS)

5.6.1.4 Greenhouse Gas Emissions

The City's Climate Action Plan (CAP) checklist document and the table of project attributes in the California Air Resources Board's (CARB's) 2022 Scoping Plan are intended to evaluate new development; thus, consistency with these documents is not applicable to the No Project Alternative. In addition, the No Project Alternative would not result in the construction of new uses and would thus not propose any changes with the potential to conflict with Plan Bay Area 2050.

The No Project Alternative would result in a minimal net increase in the number of employees and, thus, a minor additional number of daily vehicle trips compared to existing conditions. Although other emissions may occur, such as those associated with waste, water, refrigerants, and stationary sources, such emissions are already occurring under existing conditions and would not be new. The No Project Alternative would not result in the construction of new uses but would maintain existing uses.

Because the No Project Alternative would result in a minor increase in GHG emissions relative to existing conditions, there would be a less-than-significant impact. Overall, there would be fewer impacts than under the Project. There would not be an opportunity to bring the existing buildings into compliance with new Title 24 and Reach Code compliance. (LTS)

5.6.1.5 Energy

The No Project Alternative would retain the existing uses and conditions of the Project site, except for a slight increase in the number of employees due to the permitted uses allowed under the zoning code. Energy would not be used for construction; only a small increase in energy use would occur from all existing buildings being occupied. There would not be implementation of sustainability and TDM features that would be implemented as part of the Project, and any sustainability requirements applying to new buildings would not be implemented. Impacts of energy use under the No Project Alternative would be significantly less compared to the Project as the Project would increase development on site, which would increase employees and residents and overall energy usage. As a result, there would be less-than-significant impacts related to energy. No mitigation measures would be required; overall, there would be fewer impacts than under the Project. (LTS)

5.6.1.6 Noise

The No Project Alternative would generally retain existing conditions at the site and not require any new construction, except for a slight increase in the number of employees due to the permitted uses allowed under the zoning code. Development of the No Project Alternative would result in a de minimis increase in the number of vehicle trips and employment growth compared to existing conditions, which would lead to a slight increase in traffic in the vicinity of the Project site. The No Project Alternative would generate substantially fewer vehicle trips than the Project, resulting in traffic noise being much lower than under the Project. This alternative would not exceed the 3-decibel threshold and would result in a less-than-significant impact. In general, noise levels at the Project site could incrementally increase with future development and growth in the area. However, this increase in noise is expected to be typical with the growth already anticipated for the area and would not be caused by the No Project Alternative. As such, noise-related impacts would be less than significant under this alternative. No mitigation measures would be required, and overall, there would be fewer impacts than under the Project. (LTS)

5.6.1.7 Cultural Resources

Under the No Project Alternative, the existing Project site buildings would remain and no further development would occur. Since no demolition or construction would occur, there would be no disturbances to cultural resources, including archeological resources, human remain, or historic structures. The No Project Alternative would have no impact on cultural resources. No mitigation measures would be required; overall, there would be fewer impacts than under the Project. (NI)

5.6.1.8 Biological Resources

The No Project Alternative would not demolish existing buildings, construct new buildings, or remove vegetation. Since no tower buildings with reflective glass windows would be constructed, there would be no impact associated with bird collisions. In addition, since no trees would be removed, and no construction would occur at the Project site, impacts on nesting birds would not occur. The existing buildings and vegetation would remain and, therefore, roosting bats would not be impacted by the No Project Alternative. The No Project Alternative would have no impact on biological resources. No mitigation measures would be required, and overall, there would be fewer impacts than under the Project. (NI)

5.6.1.9 Geology and Soils

Similar to the Project, the No Project Alternative would not include septic tanks/alternative wastewater disposal systems and would not be susceptible to landslide. There are no faults that cross the Project site, and the Project site is not within an Alquist- Priolo Earthquake Fault Zone. Thus, the No Project Alternative would have no impacts related to the rupture of a known earthquake fault. The No Project Alternative would retain the existing conditions and, therefore, would not change the existing geology or soil conditions. Construction would not occur under this alternative, and there would be no topographic changes that could alter the erosion potential or disturb unstable soils. Therefore, there would be no impacts related to geology and soils. No mitigation measures would be required; overall, there would be fewer impacts than under the Project. (NI)

5.6.1.10 Hydrology and Water Quality

The No Project Alternative would retain the existing uses and conditions of the Project site, and therefore would not change existing hydrology at the Project site related to drainage, flooding, or groundwater recharge. The No Project Alternative would not alter the use of groundwater supplies and would not alter water quality conditions related to stormwater runoff or groundwater quality. Therefore, there would be no impacts related to hydrology and water quality. No mitigation measures would be required; overall, there would be fewer impacts than under the Project, but the Project site would remain largely a surface parking lot with largely uncontrolled runoff. The No Project Alternative would not provide the opportunity to bring the Project site into a compliance with new stormwater management requirements. (NI)

5.6.1.11 Hazards and Hazardous Materials

The No Project Alternative would retain the existing conditions and land uses at the Project site, and therefore would not change conditions related to hazardous materials, aviation hazards, or emergency response/evacuation plans. There would be no excavation or dewatering and, therefore, no potential release/movement of known or unknown subsurface contamination. Similar to the Project, the No Project

Alternative would not be located within 0.25 mile of schools or on a hazardous materials release site listed pursuant to a Government Code Section 65962.5; it would also not be susceptible to wildfire. Therefore, there would be no impacts related to hazards and hazardous materials. No mitigation measures would be required; overall, there would be fewer impacts than under the Project. (NI)

5.6.1.12 Population and Housing

As with the Project, the No Project Alternative would have no impact related to the displacement of people and housing. Assuming a conservative scenario in which all four existing buildings would be leased out to the maximum occupancy, the No Project Alternative would add approximately 296 new employees. Unlike the Project, the No Project Alternative would not result in a direct population increase due to onsite residents. However, the increase in employment at the Project site (i.e., 296 new employees) could result in a de minimus increase in housing demand and new residents in the region. However, because the buildings are existing and could be permitted to include more employees, this employment growth is considered in regional planning forecasts. As such, the No Project Alternative would result in substantially less demand for new housing units within the city or proximate local jurisdictions than planned for in the City's General Plan and Plan Bay Area. Therefore, there would be no impacts on population and housing, and no mitigation measures would be required. Overall, there would be fewer impacts on population/housing than under the Project. (NI)

5.6.1.13 Public Services

The No Project Alternative would retain the existing uses at the Project site and, therefore, would not have an impact on public services. The existing four light industrial buildings would remain on the northern portion of the site. Although the No Project Alternative could slightly increase the number of employees at the Project site, the demand for fire, police, or emergency services; schools; libraries; or recreational facilities would not be significant. Therefore, there would be no impacts related to public services. No mitigation measures would be required; overall, there would be fewer impacts on public services than under the Project. (NI)

5.6.1.14 Tribal Cultural Resources

Under the No Project Alternative, the existing Project site buildings would remain and no further development would occur. Since no demolition or construction would occur, there would be no disturbances to tribal cultural resources, including those defined in Public Resources Code Section 21074 as a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe. The No Project Alternative would have no impact on tribal cultural resources. No mitigation measures would be required; overall, there would be fewer potential impacts than under the Project. (NI)

5.6.1.15 Utilities and Service Systems

The No Project Alternative would retain the existing uses at the Project site. Approximately 296 employees would be employed under the existing uses as well as use of the Levi's parking lot for overflow parking and Amazon driver training grounds. The buildings that would be occupied under this alternative are currently served by utilities and infrastructure; no improvements or upgrades would be necessary. Although there would be a slight increase in utility use under the No Project Alternative due to the slight increase in the number of employees compared to existing conditions, the Project site would have similar water, sewer, storm drainage, energy, and operational solid waste demands as under existing conditions.

Thus, the No Project Alternative would have a less-than-significant impact on utility and service systems at the Project site. No mitigation measures would be required; overall, there would be fewer impacts than under the Project. (LTS)

5.6.2 Code Compliant Alternative

The Code Compliant Alternative, the second no project alternative, is based on what would be reasonably expected to occur in the foreseeable future if the Project were not approved and development continued to occur in accordance with the City's General Plan and Zoning Code update. As discussed in more detail above, the Code Compliant Alternative assumes that demolition of the four buildings and that new development would occur in compliance with the updated City Zoning Code. The zoning standards would allow an office/R&D project of approximately 4.2 million gsf to be developed on the Project site. As discussed in Section 3.1, *Land Use and Planning*, and Section 3.12, *Population and Housing*, the City's existing General Plan and Plan Bay Area assumed 3,000,000 gsf of office/R&D development; therefore, the Code Compliant Alternative would exceed this planned capacity by 1,200,000 gsf and not include any residential units.

5.6.2.1 Land Use

Topics Found to Have No Impact. As with the Project, the Code Compliant Alternative would not physically disrupt or divide an established community, resulting in no impact. (NI)

Conflicts with Adopted City Land Use Plans and Policies Regarding the Jobs/Housing Balance. A goal of the City's General Plan policies is, in part, to reduce environmental impacts by promoting a balance in the jobs/housing ratio. The City's General Plan policies would facilitate this goal by promoting the construction of more housing in the relatively job-rich Silicon Valley, thereby helping to reduce long-distance commutes by employees to the Silicon Valley. Conflicts with City General Plan policies aimed at improving the jobs/housing balance in the city would not occur during construction of the Code Compliant Alternative because no permanent jobs or residences would be added during this phase. Employment growth associated with operation of the Code Compliant Alternative would not be fully consistent with the growth envisioned under the General Plan and Association of Bay Area Governments (ABAG) projections, which assumed 3 million gsf of office/R&D space for the Project site as part of the Yahoo! Campus Planned Development Zoning and Development Agreement. As stated in Section 3.1, *Land Use*, the Project site is included in General Plan Appendix 8.6 (General Plan Land Use Assumptions), Section 8.6.2 (Proposed Development) and Table 8.6-2 (Proposed Development [Approved, Not Constructed, and Pending Projects]), which identifies the Project site as High-Intensity Office/R&D with 3 million gsf. General Plan Policy 5.3.1-P18, adopted to "meter" new industrial and commercial development and maintain the city's jobs/housing balance and ensure adequate infrastructure and public services, excludes the approved, constructed, and pending projects in Figure 2.3-1 and Table 8.6-2, including the 3 million gsf of office/R&D space on the Project site. Therefore, the Code Compliant Alternative would include an additional 1,200,000 gsf of office/R&D uses that was not considered as part of the General Plan and be subject to the metering in General Plan Policy 5.3.1-P18; it would not be allowed to exceed the 5.5-million-square-foot commercial cap outlined for Phases II and III of the General Plan.

The additional 1,200,000 gsf of office/R&D uses under the Code Compliant Alternative would result in additional employment growth not accounted for in the General Plan, which would worsen the jobs/housing imbalance in the city compared to the ratio anticipated in the 2035 General Plan projections. In addition, the jobs/housing imbalance would also be worse than under the Project because no housing would be constructed to offset the employees generated by this alternative. Unlike the Project, the result

of the induced housing demand from Code Compliant Alternative–generated jobs would result in upward pressure for additional housing units to be built in the city, the region, and possibly even outside of the region. Like the Project, the Code Compliant Alternative would provide development in proximity to transit and would be within walking distance of multiple VTA light rail stations as well as Great America Station, which is served by Amtrak's Capitol Corridor and Altamont Corridor Express. In addition, the Code Compliant Alternative would be largely consistent with surrounding uses, including Levi's Stadium, the Hilton Santa Clara Hotel, Convention Center, California's Great America Amusement Park, and the Patrick Henry Specific Plan adjacent to the site. Therefore, given the alternative's adjacency to public transit and compatibility with surrounding uses, the alternative would be largely consistent with the transit-oriented development goals and policies outlined in Plan Bay Area and the City's General Plan. However, without adequate housing within the city and other nearby Silicon Valley cities to accommodate job growth resulting from the Code Compliant Alternative, commute lengths to the new jobs would result in substantial air quality impacts. The alternative's inconsistency with City policies that govern the jobs/housing balance would most likely result in significant secondary impacts related to air quality emissions. Therefore, this alternative would result in an impact on the jobs/housing imbalance ,unlike the Project, and impacts would be significant and unavoidable. (SU)

Consistent with Airport Land Use Plan. The ALUC CLUP outlines the types of land uses that are compatible in the vicinity of SJC. The determination of Project consistency with the CLUP considers issues such as general compatibility, safety, height, and noise. The Project site is adjacent to, but outside of, the Airport Influence Area (AIA). Furthermore, the Project site is outside CLUP safety zones and noise contours. However, the Project site does fall within the maximum structure height contour range of 350 to 380 feet above ground level, per SJC's FAA Regulation Part 77, Surfaces Map. In accordance with the proposed General Plan and zoning amendments, the maximum heights of new buildings within the Project area would comply with the height regulations and restrictions established by FAA and CLUP criteria. Applicable maximum height requirements would vary across the Project site under the Code Compliant Alternative, but the maximum height would be 200 feet above the finished grade, which is slightly less than the approximately 202-foot maximum building height under the Project. Compliance with FAA and CLUP regulations would ensure that the Code Compliant Alternative would not introduce new buildings that would exceed applicable CLUP building height limits. Therefore, development of the Code Compliant Alternative would be consistent with height clearances established in the CLUP. Given the Code Compliant Alternative's consistency with CLUP policies regarding safety, heights, and noise, as well as FAA Regulation Part 77 notification requirements, this alternative would result in a less-than-significant land use impact with respect to CLUP policies, the same as the Project. (LTS)

Conflicts with Adopted City Land Use Plans and Policies Other than the Jobs/Housing Balance and Airport Land Use Plan. The Code Compliant Alternative is based on what would be reasonably expected to occur in the foreseeable future if the Project were not approved and development continued to occur in accordance with the City's General Plan and Zoning Code and consistent with available infrastructure and community services. Therefore, the Code Compliant Alternative would be consistent with existing zoning and land use. Because of the general consistency with land use policies and consistency with land use designation and zoning, impacts of the Code Compliant Alternative would be less than significant, the same as the Project. (LTS)

Cumulative Impacts. The growth under the Code Compliant Alternative would result in an additional 1,200,000 gsf of office/R&D space and additional employment growth that was not envisioned with build-out of the General Plan; it would worsen the jobs/housing balance in the city, which would manifest in other significant secondary physical environmental impacts. Due to the increase in the number of onsite employees and no new housing, the ratio of jobs to housing would be further exacerbated under the Code

Compliant Alternative. The Code Compliant Alternative would result in a cumulatively considerable contribution to jobs/housing imbalance. Therefore, unlike the Project, the Code Compliant Alternative's contribution to the cumulative land use impact would be significant and unavoidable. (SU)

5.6.2.2 Transportation

Adopted Plans, Ordinances, and Policies Regarding Roadways and Transit, Bicycle, and Pedestrian Facilities. The Code Compliant Alternative would not require a General Plan amendment or Zoning Code amendment. The standards of the zoning code update would allow an office/R&D project of approximately 4.2 million gsf to be developed. This alternative would not conflict with applicable plans, ordinances, or policies addressing the circulation system. Under this alternative, bicycle, pedestrian, and transit facilities are expected to be the same as under the Project; therefore, it would not result in impacts on bicycle, pedestrian, and transit facilities or conflicts with adopted plans, ordinances, or policies. Therefore, the Code Compliant Alternative would result in a less-than-significant impact related to conflicts with adopted plans, ordinances, or policies addressing roadways and transit, bicycle, and pedestrian facilities, similar to the Project. (LTS)

Vehicle Miles Traveled. Under this alternative, ADT and VMT from new development would increase compared to the Project. However, based on its location and proximity to transit (similar to the Project), the Code Compliant Alternative would qualify as a transit-supportive project and, thus, be assumed to have a less-than-significant impact on VMT. (LTS)

Hazards Due to Design Features or Incompatible Uses and Emergency Access. This alternative would include design features similar to those of the Project to reduce conflicts between vehicles and alternative modes of travel; thus, less-than-significant impacts are expected from hazardous design features or incompatible uses. Emergency access to the Project site under the Code Compliant Alternative would be similar to those under the Project, resulting in less-than-significant impacts. (LTS)

Construction Impacts.[7] The total development size under this alternative would be only slightly less than that under the Project, with only a single type (office/R&D), and may or may not include all of the underground parking proposed by the Project. Therefore, it could generate fewer truck trips during construction and fewer trips by construction workers. As stated previously, heavy-duty trucks are excluded from VMT considerations; thus, construction traffic associated with hauling demolition debris would not affect VMT. Furthermore, the VMT associated with the personal vehicles of construction workers would be substantially less than the VMT generated upon operation of the Project; therefore, construction workers' trips to and from the site would have a less-than-significant impact on VMT. As under the Project, the Code Compliant Alternative would also require preparation of a construction management plan that would be reviewed and approved by the Public Works Department, similar to requirements under Project Mitigation Measure TRA-1.1 (Construction Management Plan). This mitigation measure would ensure that the impacts related to consistency with adopted plans, ordinances, and policies addressing the circulation system, hazards due to a geometric design feature or incompatible uses, and inadequate emergency access would be less than significant with mitigation. (LTS/M)

Cumulative Impacts. The Code Compliant Alternative combined with cumulative projects would not result in cumulative impacts for any transportation topic. Future development would be required to comply with existing regulations, including General Plan policies and zoning regulations, and City

[7] Construction impacts are applicable to topics such as conflicts with adopted plans, ordinances, or policies addressing roadways and transit, bicycle, and pedestrian facilities; hazardous design features or incompatible uses; and emergency access.

standards that have been prepared to minimize impacts related to transportation and circulation, including avoiding hazards due to design features or incompatible uses and inadequate emergency access. In addition, as under the Project, the Code Compliant Alternative and cumulative development would require preparation of a construction management plan that would be reviewed and approved by the Public Works Department, similar to requirements under Project Mitigation Measure TRA-1.1 (Construction Management Plan). Therefore, the Code Compliant Alternative in combination with cumulative projects would have a less-than-significant cumulative transportation impact with mitigation, similar to the Project. (LTS/M)

5.6.2.3 Air Quality

Conflict with or Obstruct Implementation of the Air Quality Plan. The Code Compliant Alternative would result in approximately 15 percent less developed square footage than the Project and would potentially result in less construction activity. The proposed development under the Code Compliant Alternative would result in some similar land uses as the Project (office, R&D), but total development would be less. Given that the construction of non-residential square footage may result in different construction intensity than residential square footage, the extent of construction relative to the Project is not known with certainty (i.e., construction intensity for this alternative may not simply be 15 percent less than the Project). The Project would be consistent with the BAAQMD's 2017 Clean Air Plan, because it would support the primary goals of the plan, include applicable control measures from the plan, and not disrupt any of the measures from the plan. Like the Project, it is likely that the Code Compliant Alternative would include energy saving features and sustainability measures, such as Leadership in Energy and Environmental Design (LEED) certification, alternative transit options, landfill diversion techniques, and water-saving features. It is likely that the Code Compliant Alternative would not disrupt implementation of any of the measures for the plan. Thus, similar to the Project, the Code Compliant Alternative would not conflict with the applicable regional air quality plans. Therefore, impacts are considered less than significant, the same as the Project. (LTS)

Construction Criteria Air Pollutant Emissions. The Code Compliant Alternative would result in 15 percent less building area than the Project, which may result in a shorter construction period, although the extent of construction relative to the Project is not known with certainty. In addition, it is likely that the daily construction activities under the Code Compliant Alternative would be similar to the Project. Therefore, daily construction emissions generated by the Code Compliant Alternative would most likely be similar to those of the Project but with a potentially shorter duration overall. Similar to the Project, development of the Code Compliant Alternative would very likely exceed the BAAQMD's significance thresholds during construction. Because daily emissions would most likely be similar to those of the Project, similar mitigation would be required, such as Mitigation Measure AQ-2.1 (Use Clean Diesel-powered or Electric Equipment during Construction to Control Construction-related Emissions) and Mitigation Measure AQ-2.2 (Implement Bay Area Air Quality Management District Basic Construction Mitigation Measures to Reduce Dust Emissions).

The construction of the Project would generate daily exhaust emissions of NO_X in exceedance of the BAAQMD significance threshold, and thus the Code Compliant Alternative would most likely generate similar levels of daily NO_X emissions in exceedance of the BAAQMD threshold. Like the Project, implementation of Mitigation Measures AQ-2.1 and AQ-2.2 would reduce the impact and would bring daily NO_X emissions below the BAAQMD threshold. Therefore, with implementation of Mitigation Measures AQ-2.1 and AQ-2.2, impacts would be less than significant with mitigation, similar to the Project. (LTS/M)

Operational Criteria Air Pollutant Emissions. Similar to the Project, operation has the potential to create air quality impacts, primarily from mobile and area sources. Although this alternative would result in less building space than the Project, it would result in more daily vehicle trips, because the overall trip rates would be higher for this combination of land uses. Vehicle traffic would include daily trips from employees, delivery trucks, waste management trucks, etc. Because the Code Compliant Alternative would result in more vehicle trips, the operational air quality impacts would be greater than the Project. The amount of trips associated with the Code Compliant Alternative would be approximately 3 percent greater than the Project. As shown in Table 3.3-10, even with Mitigation Measures AQ-2.3 through AQ-2.6 (Require Low-VOC Coatings During Project Construction and Operation, Use Low-VOC Cleaning Supplies, Replace Gas Powered Landscape Equipment with Zero-Emission Landscape Equipment, and U.S. Environmental Protection Agency Tier 4 Final Stationary Emergency Generators), the operational-only emissions of reactive organic gas (ROG), NO_X, and particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) or 2.5 microns or less ($PM_{2.5}$) would exceed the BAAQMD thresholds of significance. ROG and NO_X emissions from mobile sources for this alternative would be even greater than the Project due to the increased vehicle trips; however, ROG emissions from area sources would decrease, because area source emissions are calculated based on building space. Despite a decrease in ROG emissions from area sources, the Code Compliant Alternative would still result in emissions of ROG and NO_X that would be above the thresholds of significance. Emissions of PM_{10} and $PM_{2.5}$ associated with the Project would be roughly 20 percent above the threshold; thus, with the additional mobile-source emissions, the Code Compliant Alternative would result in even greater emissions, which would also be above the PM_{10} and $PM_{2.5}$ thresholds.

With respect to construction and operations overlap, as shown in Table 3.3-11, the Project would result in emissions of ROG, NO_X, and PM_{10} that would exceed BAAQMD thresholds. Thus, if construction and operations were to overlap for the Code Compliant Alternative, it is likely that emissions would also exceed the thresholds during the period of overlap.

Similar to the Project, Mitigation Measures AQ-2.3 through AQ-2.6 would reduce the criteria pollutant impacts of this alternative but not to a level below BAAQMD thresholds. Operational, as well as construction and operation overlap, emissions would be significant and unavoidable, resulting in a slightly greater impact than the Project. (SU/M)

Exposure of Sensitive Receptors to Carbon Monoxide Hot-spots. Traffic generated by the Project would have the potential to create carbon monoxide (CO) hot spots at nearby roadways and intersections. The Code Compliant Alternative would generate slightly more traffic than the Project, and thus the CO concentrations at potential hot-spots would be slightly greater than what is anticipated for the Project. As evaluated in Table 3.3-13, worst-case CO concentrations from Project implementation are well below the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). Thus, it is unlikely that the additional traffic volumes from this alternative would cause CO concentrations to contribute to any new localized violations of the 1-hour or 8-hour ambient air quality standards. Similar to the Project, this impact would be less than significant but slightly greater. (LTS)

Construction and Operational TAC Emissions. Diesel-fueled engines, which generate $PM_{2.5}$ and diesel particulate matter (DPM), would be used during construction of the Code Compliant Alternative, similar to the Project. In addition, during operations, the same types of $PM_{2.5}$ and DPM sources would be present but potentially to a greater degree. For example, there would be approximately 3 percent more vehicle trips, and there could be more emergency generators, because commercial uses are more likely to have emergency generators than residential uses.

Multiple sensitive receptors are located within 1,000 feet of the Project site. Notably, this alternative would not include residential uses, and thus no new receptors would live at the Project area while subsequent phases of construction are on-going. Construction of the Code Compliant Alternative would very likely result in a different construction duration than the Project, which could reduce the amount of emissions and duration of exposure compared to the Project, however this is not known with certainty. As shown in Table 3.3-14, for construction-only impacts, the Project would not cause any significant health risks or $PM_{2.5}$ concentrations; thus, it is likely that the Code Compliant Alternative would not result in significant health-related impacts during the construction-only period. However, for Project operation, as well as construction and operations overlap, there would be a significant cancer risk in one scenario and a significant $PM_{2.5}$ impact in six scenarios.

The significant cancer risk for the Project would occur at onsite residential receptors under the construction-and-operations-overlap scenario. The impact would not occur for this alternative, however, because there would not be onsite residential receptors present.

The significant $PM_{2.5}$ concentrations for the Project would occur at offsite and onsite receptors and would cause impacts that are much greater than the BAAQMD threshold. At some receptors, the $PM_{2.5}$ concentration would be 10 times the threshold; as such, the Code Compliant Alternative would also result in $PM_{2.5}$ concentrations that are above the BAAQMD threshold. These impacts would occur at offsite recreational and worker receptors, and at onsite worker receptors.

Mitigation Measures AQ-2.1, AQ-2.2, and AQ-2.6 would be implemented to reduce Project-related impacts, and would also be required for the Code Compliant Alternative. However, even with this mitigation, impacts for this alternative would be above the thresholds and thus significant. Therefore, this impact would be significant and unavoidable, similar to the Project. (SU/M)

Exposure of Sensitive Receptors to Asbestos During Construction. Asbestos is a naturally-occurring mineral that was previously used in building construction due to its heat resistance and strong insulating properties. As with the Project, asbestos impacts could occur if demolition of existing buildings containing asbestos or disturbance of any features exposes workers. The Code Compliant Alternative would comply with BAAQMD Regulation 11, Rule 2, which would control emissions of asbestos to the atmosphere during demolition activities. Accordingly, this impact would be less than significant, the same as the Project. (LTS)

Objectionable Odors. Similar to the Project, potential odor sources from construction of the Code Compliant Alternative include diesel exhaust from heavy-duty equipment, diesel exhaust from delivery vehicles and weekly trash pick-up, and the use of architectural coatings during maintenance activities; limited odors may also result from residential cooking appliances during operations. These odors would be limited to localized areas. Although exhaust- and paint-related odors may be considered adverse, they would not affect a substantial number of people. Given mandatory compliance with BAAQMD regulations, no construction or operational activities for the Code Compliant Alternative would create a significant level of objectionable odors. Accordingly, this impact would be less than significant, the same as the Project. (LTS)

Cumulative Impacts. The Code Compliant Alternative would result in criteria air pollutant emissions similar to those of the Project and, thus, would contribute considerably to significant cumulative regional air pollutant levels because the thresholds of significance, which are inherently cumulative, would be exceeded. (SU/M)

As noted in the cumulative discussion in Section 3.3, *Air Quality*, the analysis for consistency with BAAQMD's Clean Air Plan is inherently cumulative. Thus, the discussion above for this alternative's consistency with the Clean Plan is also representative of cumulative impacts. (LTS)

This alternative would result in DPM and $PM_{2.5}$ emissions that would contribute to cumulative exposure for onsite and offsite sensitive receptors, including future receptors at the site of the Patrick Henry Specific Plan. As evaluated in Tables 3.3-15 through 3.3-18, the cumulative exposure during Project operations, as well as construction and operation overlap, would be greater than BAAQMD cumulative thresholds for $PM_{2.5}$ at onsite and offsite receptors. Due to the magnitude of exceedances for the cumulative exposure to $PM_{2.5}$, the differences in development for this alternative would not prevent significant impacts. Like the Project, no feasible mitigation has been identified that would eliminate the significant cumulative impact on sensitive receptors, but the alternative's contribution to this impact would be less than the Project's contribution. (SU/M)

5.6.2.4 Greenhouse Gas Emissions

Generation of GHG Emissions During Construction and Operation. The Code Compliant Alternative would result in 15 percent less building area than the Project, which may result in a shorter construction period, although the extent of construction relative to the Project is not known with certainty. Any differences would most likely be small relative to total emissions. Furthermore, GHG emissions from construction were determined to be less than significant with Mitigation Measure GHG-1.1 (Require Implementation of BAAQMD-Recommended Best Management Practices to Reduce Construction GHG Emissions) for the Project, because implementation of construction-related measures, as recommended by BAAQMD, would reduce GHG emissions. This mitigation measure would also be required for the Code Compliant Alternative. BAAQMD has noted that construction emissions represent a very small portion of a project's lifetime GHG emissions. Therefore, the impact would be less than significant with mitigation, similar to the Project. (LTS/M)

Similar to the Project, operation has the potential to generate GHG emissions. Although this alternative would result in less building area than the Project, it would result in more daily vehicle trips, because the overall trip rates would be higher for this combination of land uses. Vehicle traffic would include daily trips from employees, delivery trucks, waste management trucks, etc. Because the Code Compliant Alternative would result in more vehicle trips, the operational GHG emissions would be greater than the Project. The amount of trips associated with the Code Compliant Alternative would be approximately 3 percent greater than the Project. Other emissions sources, such as waste and water emissions, may be lower than the Project, but, because mobile sources are the dominant source of emissions, overall emissions would very likely be greater.

It is currently unknown whether the Code Compliant Alternative would be consistent with the City's CAP. Because consistency with the City's CAP requires a detailed assessment of a project's features, it cannot be determined whether future development would be consistent with or conflict with the plan. The level of detail necessary to determine consistency with the City's CAP is greater than the level of detail that is appropriate for analyzing a project's alternatives under CEQA. However, it is likely that this alternative would result in design features similar to those of the Project and be consistent with the City's CAP. This impact would be less than significant, similar to the Project. (LTS)

Conflicts with Applicable Plans and Policies. It is currently unknown whether the Code Compliant Alternative would conflict with any applicable plans or policies adopted to reduce GHG emissions, because there are no specific development projects consistent with this alternative proposed for the site. Because

consistency with the City's CAP, the CARB 2022 Scoping Plan, and Plan Bay Area 2050 requires a detailed assessment of a project's features, it cannot be determined whether future development would be consistent with or conflict with these plans. The level of detail necessary to determine consistency with these plans is greater than the level of detail that is appropriate for analyzing a project's alternatives under CEQA. However, it is likely that this alternative would result in design features similar to those of the Project and be consistent with the CAP, 2022 Scoping Plan, and Plan Bay Area 2050. This impact would be less than significant, similar to the Project. (LTS)

5.6.2.5 Energy

Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources. The Code Compliant Alternative would result in 15 percent less building area than the Project, which may result in a shorter construction period, although the extent of construction relative to the Project is not known with certainty. Any differences would very likely be small relative to total energy usage during construction. Construction energy usage under this alternative would be reduced through the use of energy-efficient construction equipment and trucks as well as alternative fuels. Design features implemented for this alternative and Mitigation Measure GHG-1.1 would reduce the amount of fossil fuels consumed during construction as well as the energy intensiveness associated with building materials, including discarded construction and demolition waste. As with the Project, impacts would be less than significant with mitigation. (LTS/M)

During operation of this alternative, compliance with the California Green Building Standards Code (CALGreen), LEED building requirements, and the TDM program would result in operational transportation energy savings, similar to the Project. Given the reduction in building area, the Code Compliant Alternative would result in lower energy consumption compared with the Project. Therefore, the Code Compliant Alternative would not result in inefficient, wasteful, or unnecessary consumption of energy during operations. The impact would be less than significant, similar to but slightly less than the impact of the Project. (LTS)

Conflict with Energy Plan. As with the Project, the Code Compliant Alternative would be required to comply with State and local renewable energy and energy efficiency plans. As a result, it would benefit from renewable energy development and increases in energy efficiency. Building energy efficiency is also expected to increase as a result of compliance with Title 24 building codes, which are expected to move toward zero net energy for new construction and 100 percent renewable energy under Senate Bill (SB) 350 and SB 100 regulations. Therefore, the Code Compliant Alternative would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. The impact would be less than significant, similar to the Project. (LTS)

Cumulative Impacts. Similar to the Project, it is anticipated that future energy users will become more efficient and less wasteful over time and will not create significant cumulative energy impacts. Because a significant cumulative energy impact would not result under cumulative conditions, the Code Compliant Alternative would not contribute to a cumulative impact. Therefore, the impact would be less than significant, similar to the Project. (LTS)

5.6.2.6 Noise

Construction Impacts. The Code Compliant Alternative would include more office space than the Project and no other development (e.g., residential, retail, childcare, etc.). Overall, the intensity and location of construction under this alternative would be similar to that of the Project because this alternative would

involve the same types of construction equipment and similar worst-case distances to noise-sensitive land uses but may not include underground parking. As with the Project, construction noise impacts for the Code Compliant Alternative would be significant during the daytime hours due to a substantial increase in noise (i.e., greater than a 10 dB increase above existing levels) and during the nighttime hours due to an exceedance of the City Code noise limit. Implementation of Mitigation Measures NOI-1.1 (Construction Noise Reduction Control Plan) would reduce construction noise but not to a to less-than-significant level. Like with the Project, it cannot be determined with certainty that the construction noise reduction control plan would sufficiently reduce noise in all circumstances. Noise from construction haul trucks, which was found to be less than significant for the Project, would be less than significant for this alternative, however, because there would be fewer haul trucks than the Project. Therefore, the impact would be significant and unavoidable with mitigation, similar to the Project. (SU/M)

For vibration impacts during construction, the Code Compliant Alternative may require the use of pile drivers. The use of pile drivers would result in significant annoyance-related impacts even with Mitigation Measure NOI-3.1 (Pile Driving Vibration Reduction Plan), because it cannot be determined that the measure would sufficiently reduce vibration in all circumstances. Like the Project, damage-related impacts would be less than significant, but annoyance-related impacts would be significant and unavoidable with mitigation. (SU/M)

Traffic Noise Impacts. The development of the Code Compliant Alternative would result in an increase in vehicle trips and employment growth as compared to existing conditions, which would lead to an increase in traffic in the vicinity of the Project site. This alternative is estimated to generate up to 38,244 external vehicle trips, which is approximately three percent greater than the 36,981 vehicle trips from the Project. Because the Code Compliant Alternative would generate slightly more total vehicle trips than the Project, the resulting traffic noise would be slightly greater with this alternative. As explained in Section 3.6, *Noise*, the Project would result in significant traffic noise impacts at a roadway segment if the Project-related increase in noise is 3 A-weighted decibels (dBA) or greater. As evaluated in Table 3.6-11, the greatest increase in noise at any roadway from Project-related traffic would be 2.9 decibels (dB), which does not constitute a significant noise impact. Because the Code Compliant Alternative would result in a slightly greater number of vehicle trips than the Project, the small increase in noise would not be likely to cause the increase to be 3 dB or greater. Therefore, this alternative would not exceed the 3 dB threshold and would result in a less-than-significant impact, similar to the Project. (LTS)

Operational Noise Impacts from Stationary Sources and Other Operational Sources. The Code Compliant Alternative would result in more uniform building types than the Project (i.e., all office or R&D). Stationary sources and other operational sources associated with these uses could result in noise levels in excess of the City's noise limits. In general, noise impacts from operational sources would be similar for the Project and Code Compliant Alternative, because both would include office uses and thus similar equipment. The worst-case distances between noise source and sensitive receptor could be greater for this alternative, because the Code Compliant Alternative does not include any onsite sensitive land uses. Impact NOI-2 for the Project notes that, at a distance of 50 feet, onsite noise-sensitive land uses could experience a noise limit exceedance from the operation of mechanical equipment and testing of emergency generators. For this alternative, there would be no onsite land uses and the worst-case distance would very likely be greater than 50 feet from mechanical equipment and/or emergency generators. The nearest offsite sensitive land uses are several hundred feet away and most likely would not be affected by operational sources of noise; however, the City's noise standards could still be exceeded at non-sensitive land uses that are near the Project site (e.g., office uses). The impact is significant, but, like the Project, would be less than significant with implementation of Mitigation Measure NOI-2.1

(Stationary Sources Noise Reduction Plan). With the noise reduction plan, impacts from stationary noise equipment would be less than significant with mitigation, similar to the Project. (LTS/M)

Noise from other sources associated with operations, such as amplified music and sound from events; truck loading; and parking garage activity, would be similar in magnitude to the Project. Although this alternative would have a different amount of development, the level of noise from events, truck loading, or parking garage activity would not differ substantially. The occurrence of the noise may be more frequent with the Code Compliant Alternative due to the greater commercial uses, but the noise levels would be approximately the same. For the reasons discussed in Impact NOI-2, noise from these sources would be less than significant for the Project and thus also less than significant for the Code Compliant Alternative. (LTS)

Aircraft Noise Impacts. The area sited for development with the Project is the same as the area sited for development under the Code Compliant Alternative. The Project site is adjacent to but outside the AIA of SJC. The Project site does not fall within the 65 dBA community noise equivalent level (CNEL) noise contour (i.e., the lowest noise contour for aircraft noise presented) for SJC, and would thus not be exposed to aircraft noise above 65 dBA.[8] Therefore, people working at the Project site under this alternative would not be greatly affected by aircraft noise. Impacts from aircraft noise would be less than significant, similar to the Project. (LTS)

Cumulative Impacts. Cumulative construction noise for the Project would be cumulatively considerable because Project construction noise could exceed the City's exterior noise limits at sensitive land uses or result in a 10 dB or greater increase over the ambient noise level. In addition, future residences at the Patrick Henry Specific Plan Site would also be affected by a substantial increase in noise from construction at the Project site. As noted above, this alternative would involve the same types of construction equipment, and worst-case distances to noise-sensitive land uses would be similar to those of the Project. Consequently, the Code Compliant Alternative would also result in a cumulatively considerable noise contribution to the cumulative impact. Mitigation Measure NOI-1.1 would reduce construction noise levels by incorporating practices to minimize noise, but the noise controls may not reduce noise enough in all instances to prevent a noise increase of 10 dB or more relative to ambient noise levels or reduce nighttime construction noise to a level that would be in compliance with Santa Clara City Code (City Code) noise limits. This alternative's contribution to this impact would be significant and unavoidable, the same as the Project. (SU/M)

Construction of the Project was found to result in significant and unavoidable cumulative vibration impacts during construction. The same conclusion would apply to this alternative because the same types of equipment and worst-case distances would also apply. In particular, the Patrick Henry Specific Plan would construct new residential units, which would result in vibration-sensitive land uses being located approximately 100 feet from the Project site. At 100 feet, pile driving would generate substantial vibration, affecting future occupants of the Patrick Henry Specific Plan site. Mitigation Measure NOI-3.1 would be implemented to minimize this impact, but it cannot be determined whether vibration levels would be reduced to below the strongly perceptible threshold in all circumstances at the cumulative receptors. This alternative's contribution to this impact would be significant and unavoidable, the same as the Project. (SU/M)

As discussed in Section 3.6, *Noise*, cumulative impacts related to non-traffic operational noise would be less than significant. Non-traffic operational noise impacts would require implementation of Mitigation Measures NOI-2.1 to be less than significant. These cumulative impacts would be the same under the Code

[8] Windus, Walter B. 2011. *Comprehensive Land Use Plan for San José International Airport*. Santa Clara County Airport Land Use Commission. Adopted: May 25, 2011. Amended: November 16, 2016.

Compliant Alternative because the same general type of noise sources would be present (e.g., heating, ventilation, air-conditioning (HVAC) fans; chillers; emergency generators) and result in similar noise levels. Future residences at the Patrick Henry Specific Plan site would also be affected by operational noise. Although there would be no onsite sensitive land uses under this alternative, as noted above, the noise levels at existing offsite land uses would be similar. (LTS/M)

With regard to traffic noise effects, future regional growth in the Project vicinity would result in increases in traffic that would cumulatively increase traffic noise. As evaluated in Table 3.3-14, the increase in traffic noise for the cumulative conditions relative to existing conditions would be a maximum of 9.3 dB, which would be a noticeable and thus significant increase in noise. However, Table 3.3-14 also presents the Project-only contribution to cumulative noise impacts (i.e., relative to future conditions without the Project), and the Project contribution would be 2.2 dB, which would not be noticeable. Thus, because the Code Compliant Alternative would result in slightly more vehicle trips (three percent) in the cumulative conditions, the contribution from this alternative would be near 2.2 dB and thus not noticeable. Therefore, the Code Compliant Alternative's contribution to the cumulative traffic noise impact would be less than significant, similar to the Project. (LTS)

5.6.2.7 Cultural Resources

Topics Found to Have No Impact. As with the Project, the Code Compliant Alternative would not cause a substantial adverse change in the significance of a historic structure because none of the existing buildings onsite are considered historic. Therefore, the Code Compliant Alternative would result in no impact on historic structures. (NI)

Archaeological Resources and Human Remains. Similar to the Project, archaeological deposits and human remains would not be encountered during operation of the Code Compliant Alternative. However, as discussed in Section 3.7, *Cultural Resources*, the Project could result in significant impacts on archaeological resources and human remains during construction. The Code Compliant Alternative could also disturb cultural resources, including archeological resources and human remains. However, there would be fewer impacts under this alternative because no below-grade parking garage would be developed, and the area of disturbance would be significantly smaller than that of the Project. Overall, there would still be a significant cultural resources–related impact under the Code Compliant Alternative because excavations could encounter archaeological deposits or human remains and result in an adverse change to a buried archaeological deposit. Implementation of Mitigation Measures CUL-2.1 (Development and Implement Archaeological Monitoring Plan), CUL-2.2 (Conduct Cultural Resource Sensitivity Training Prior to Project-Related Ground Disturbance), and CUL-2.3 (Stop Work if Archaeological Deposits Are Encountered During Ground-Disturbing Activities), would reduce impacts to a less-than-significant level, similar to but slightly less than impacts under the Project. (LTS/M)

Cumulative Impacts. As discussed in Section 3.7, *Cultural Resources*, cumulative impacts with respect to cultural resources would be less than significant with the implementation of Mitigation Measures CUL-2.1, CUL-2.2, and CUL-2.3. This alternative would result in fewer impacts than the Project because no below-grade parking garage would be developed, but excavations could still encounter archaeological deposits or human remains and result in an adverse change to a buried archaeological deposit. Therefore, impacts would be less than cumulatively considerable with mitigation, similar to the Project. (LTS/M)

5.6.2.8 Biological Resources

Topics Found to Have No Impact. As with the Project, the Code Compliant Alternative would not result in the direct loss of or damage to special-status plants or fish, the loss or degradation of riparian habitat or sensitive natural communities, interference with the movement of native resident or migratory fish species, interference with wildlife corridors, or conflict with a Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP). The Code Compliant Alternative would result in no impact related to these issues, similar to the Project for the same reasons described for the Project. (NI)

Impacts on Special-Status Species. Similar to the Project, operation of the Code Compliant Alternative would not result in significant impacts because birds and bats would become acclimated to operational noise. However, construction of the Code Compliant Alternative could result in impacts on special-status nesting birds and bat species. If the Code Compliant Alternative is implemented during the nesting season for birds (February 1 through August 31), construction activities could result in the direct mortality of adult or young birds, the destruction of active nests, and/or disturbance of nesting adults, causing nest abandonment and/or loss of reproductive effort, similar to the Project. In addition, as with the Project, construction activities could result in the direct mortality of roosting bats, including pallid bat, during tree and building removal. The Code Compliant Alternative would result in similar tree removal and building demolition as the Project. Therefore, as with the Project, impacts on special-status species during construction would be less than significant with implementation of Mitigation Measures BIO-1.1 (Protect Roosting Bats) and BIO-4.1 (Protect Nesting Birds). (LTS/M)

Impacts on State or Federally Protected Wetlands. Similar to the Project, operation of the Code Compliant Alternative would not result in significant impacts on State- or federally protected wetlands. The Code Compliant Alternative would result in the same amount of demolition as the Project, but would reduce the amount of development and floor area. There are no State or federally protected wetlands, as defined by Section 404 of the Clean Water Act (CWA), on the Project site. Although no direct impacts would occur, development on the Project site has the potential to cause indirect impacts on nearby wetlands or water quality within those wetlands (e.g., Calabazas Creek), given the site's runoff patterns. Runoff under this alternative would very likely be slightly less than the Project since less floor area and smaller footprints would be constructed, but runoff is still expected to occur. In order to meet the federal, State, and local permit and policy requirements, projects must incorporate impervious surfaces, tree planters, grassy swales, bioretention and/or detention basins, and other features, which would be included as part of the Code Compliant Alternative's site plans. Compliance with the Stormwater Pollution Prevention Plan (SWPPP) during construction, as well as post-construction measures and design features required by the Municipal Regional Permit (MRP), would reduce the potential impact from the Code Compliant Alternative on Calabazas Creek to a less-than-significant level. Impacts would be similar to the Project but with a slightly lesser degree of severity. (LTS)

Impede Use of Native Wildlife Nursery Sites or Interfere with Movement of Native Migratory Wildlife Species. Currently, there are approximately 350 trees on the Project site and four buildings; for the purposes of this analysis, it is assumed that, like the Project, all of the existing features would be removed. Impacts on native migratory birds, including tree-nesting raptors, could involve direct impacts from the removal of nesting trees or shrubs, or other nesting substrate (e.g., buildings), as well as indirect impacts from increases in noise and human activity near nesting habitat during construction and operation. Construction and operational activities would be less intense under the Code Compliant Alternative than the Project due to a decrease in development. Nonetheless, similar to the Project, Mitigation Measure BIO-4.1 would be required in order to protect nesting birds. Implementation of this mitigation measure would result in less-than-significant impacts.

No bird species are expected to occur in large numbers on or immediately adjacent to the Project site. In addition, it is not expected that large numbers of migratory birds would use the Project site as an important flight path and be subject to a high risk of collision with proposed buildings. Because of the overall low level of abundance with respect to birds on and immediately adjacent to the Project site, the frequency of bird collisions with buildings during operation of the Code Compliant Alternative is expected to be low. Although it is expected that the proposed buildings under the Code Compliant Alternative would be slightly lower in height than under than the Project, the area of a building that poses the greatest risk for avian collisions is the lower portion because the majority of daily routine activities (e.g., foraging, roosting, nesting) occur relatively close to the ground. Therefore, although building heights would not be as tall, bird collisions could occur at a similar rate as under the Project. Although bird collisions cannot be completely avoided, the Project Sponsor would incorporate the City's standard condition of approval for bird safety into the final design of the Code Compliant Alternative buildings to reduce significant impacts related to bird collisions. As with the Project, implementation of Mitigation Measure BIO-4.2 (Implement Bird-Safe Design Standards into Project Buildings and Lighting Design) would reduce impacts due to bird collisions during operation to less than significant, resulting in similar impacts compared to the Project. (LTS/M)

Conflicts with Local Policies or Ordinances Protecting Biological Resources. Operation of the Code Compliant Alternative would not result in conflicts with any local policies or ordinances protecting biological resources. Construction of the Code Compliant Alternative would result in the removal of trees, similar to the Project. Per City Code Chapter 12.35, all removed suitable trees must be replaced at a ratio of 2:1 for 24-inch box trees or 4:1 for 15-gallon box trees. Dead trees are required to be replaced at a ratio of 1:1. Similar to the Project, the Code Compliant Alternative would be required to adhere to this local policy. Therefore, the alternative would result in less-than-significant impacts related to conflicts with policies or ordinance protecting biological resources, similar to the Project. (LTS)

Cumulative Impacts. As discussed in Section 3.8, *Biological Resources*, cumulative impacts with respect to biological resources would be less than significant with implementation of Mitigation Measures BIO-1.1, BIO-4.1, and BIO-4.2. This alternative is conservatively assumed to involve the same amount of tree removal, the same amount of building demolition, and less building footprint impacts compared to the Project. Therefore, impacts would be less than cumulatively considerable with mitigation, similar to the Project. (LTS/M)

5.6.2.9 Geology and Soils

Topics Found to Have No Impact. Similar to the Project, the Code Compliant Alternative would not include septic tanks/alternative wastewater disposal systems and would not be susceptible to landslides and would result in no impacts related to these topics. (NI)

Fault Rupture, Seismic Hazards, Erosion, and Expansive Soils. Construction and operation of the Code Compliant Alternative would be subject to the same seismic and soil conditions as the Project because they would be located on the same site and would be required to comply with existing regulations that address seismic hazards, expansive soils, and erosion. Therefore, similar to the Project, the Code Compliant Alternative would result in less-than-significant impacts related to surface fault rupture, ground shaking, liquefaction, lateral spreading, soil erosion and loss of topsoil, and expansive soils for the same reasons described for the Project. (LTS)

Unstable Soil. Construction of the Code Compliant Alternative could include excavation and dewatering activities and placement of fill materials on the Project site, but the dewatering would very likely be to a

lesser extent than under the Project because this alternative would not include as much below-grade excavation. Thus, this could result in similar but less significant impacts related to collapse, subsidence, and settlement of unstable soil as the Project for the same reasons described for the Project. Implementation of Mitigation Measure GEO-3.1 (Static Settlement, Subsidence, or Collapse) would reduce these impacts to less than significant with mitigation for the same reasons described for the Project. If the Code Compliant Alternative would include placement of less fill material and/or less excavation and dewatering than the Project, potential impacts related to collapse, subsidence, and settlement of unstable soil could be less extensive than the Project. Operation of the Code Compliant Alternative would not include the placement of fill material or involve excavation/dewatering; therefore, it would not contribute to collapse, subsidence, or settlement within unstable soil. (LTS/M)

Paleontological Resources. The Code Compliant Alternative would be located on the same site as the Project and include some below-grade excavation, although to a less extent than the Project. Thus, this alternative would be located in areas that are underlain by geologic units that have yielded scientifically important fossil finds, including vertebrate remains. The Code Compliant Alternative would have a significant impact on significant paleontological resources during construction. Implementation of Mitigation Measure GEO-6.1 (Paleontological Resources) would ensure that the significant impacts related to paleontological resources would be reduced to a less-than-significant level, similar to the Project but to a lesser extent. Operation of the Code Compliant Alternative would not result in impacts on paleontological resources because ground disturbance would not occur. (LTS/M)

Cumulative Impacts. As discussed in Section 3.9, *Geology and Soils*, cumulative construction impacts with respect to geology and soils and paleontological resources would be less than significant with implementation of Mitigation Measures GEO-3.1 and GEO-6.1. This alternative would result in fewer impacts than the Project because no below-grade parking garage would be developed, but excavation could still result in impacts related to unstable soils and paleontological resources. As discussed in Section 3.9, *Geology and Soils*, cumulative operational impacts with respect to geology and soils and paleontological resources would not occur. Therefore, impacts would be less than cumulatively considerable with mitigation, similar to the Project. (LTS/M)

5.6.2.10 Hydrology and Water Quality

Surface Water Quality. The Code Compliant Alternative would be required to comply with existing regulations that protect surface water quality during construction and operation and, therefore, would result in less-than-significant impacts related to surface water quality for the same reasons described for the Project. (LTS)

Groundwater Quality and Supply. The Code Compliant Alternative could include excavation dewatering and redevelopment in areas where contaminated soil or groundwater and water wells may be present, which could result in significant impacts on groundwater quality, supply, and management similar to those of the Project for the same reasons described for the Project. Implementation of Mitigation Measures GEO-3.1, HAZ-2.1 (Subsurface Contamination), WQ-1.1 (Dewatering), and WQ-1.2 (Wells) would reduce impacts on groundwater quality during construction and operation as well as groundwater supply and management during construction to less than significant with mitigation for the same reasons described for the Project. Because the Code Compliant Alternative would include less excavation dewatering than the Project, potential construction impacts on groundwater quality, supply, and management would be less extensive than under the Project. (LTS/M)

The Code Compliant Alternative would increase the demand on the city's municipal water supply, which could result in significant operational impacts similar to those of the Project related to groundwater supply and management for the same reasons described for the Project. Implementation of Mitigation Measure WQ-2.1 (Water Supply) would reduce the operational impacts to less than significant with mitigation for the same reasons described for the Project, resulting in similar impacts. (LTS/M)

Drainage Patterns. The Code Compliant Alternative would alter drainage patterns on the Project site during construction and operation and result in less-than-significant impacts related to erosion and sedimentation for the same reasons described for the Project. The Code Compliant Alternative could increase the amount of impervious surfaces compared to the Project, given the type of development that would be allowed under this alternative. This could reduce groundwater recharge and increase stormwater runoff from the Project site. The Project site is located within the confined aquifer area in the north-central portion of the Santa Clara Subbasin,[9] therefore potential decreases in groundwater recharge at the Project site would not be expected to significantly impact groundwater supply, and potential impacts related to interfering with groundwater recharge would be less than significant. Altering drainage patterns on the Project site could result in similar significant impacts as the Project related to flooding and exceeding the capacity of storm drain systems for the same reasons described for the Project. Implementation of Mitigation Measures WQ-3.1 (Drainage and Flooding during Construction and Operation) and WQ-3.2 (Construction Stormwater Drainage) would reduce impacts related to flooding and exceeding the capacity of storm drain systems to less than significant with mitigation for the same reasons described for the Project, resulting in similar impacts. (LTS/M)

Release of Pollutants Due to Inundation. The Code Compliant Alternative would be subject to the same risks of inundation during construction and operation as the Project and result in less-than-significant impacts related to the release of pollutants in the event of a tsunami, seiche, or dam failure for the same reasons described for the Project. The Code Compliant Alternative would include construction within a flood hazard area and could result in a similar significant impact as the Project related to the release of pollutants due to inundation by flooding for the same reasons described for the Project. Implementation of Mitigation Measures WQ-3.2 would reduce this impact to less than significant with mitigation for the same reasons described for the Project, resulting in similar impacts. (LTS/M)

Conflict with a Water Quality Control Plan or Groundwater Management Plan. The Code Compliant Alternative could affect groundwater quality, supply, and management during construction and operation, as discussed above. Therefore, it could result in a significant impact similar to that of the Project related to conflicting with the Basin Plan and Groundwater Management Plan for the Santa Clara and Llagas Subbasins. Implementation of Mitigation Measures WQ-1.1, WQ-1.2, GEO-3.1, and HAZ-2.1 would reduce this impact to less than significant with mitigation for the same reasons described for the Project, resulting in similar impacts. (LTS/M)

Cumulative Impacts. As discussed in Section 3.10, *Hydrology and Water Quality*, cumulative impacts with respect to hydrology and water quality would be less than significant with implementation of Mitigation Measures WQ-1.1, WQ-1.2, GEO-3.1, and HAZ-2.1. This alternative would result in construction and operational impacts similar to those of the Project because the risks to surface waters and groundwater would be similar, as described above. Therefore, impacts would be less than cumulatively considerable with mitigation, similar to the Project. (LTS/M)

[9] Santa Clara Valley Water District. 2021. *Groundwater Management Plan for the Santa Clara and Llagas Subbasins.* November.

5.6.2.11 Hazards and Hazardous Materials

Topics Found to Have No Impact. Similar to the Project, the Code Compliant Alternative would not be located within 0.25-mile of schools or on hazardous materials release site listed pursuant to a Government Code Section 65962.5 and would not be susceptible to wildfire. The Code Compliant Alternative would result in no impacts related to these topics. (NI)

Aviation Hazards, Emergency Response and Evacuation, and Routine Transport, Use, or Disposal of Hazardous Materials. Construction and operation of the Code Compliant Alternative would be required to comply with existing regulations and policies that address aviation hazards, emergency response and evacuation, and hazardous materials management and would therefore result in less-than-significant impacts related to aviation hazards, emergency response and evacuation, and the routine transport, use, or disposal of hazardous materials for the same reasons described for the Project, resulting in similar impacts. (LTS)

Accidental Release of Hazardous Materials. Construction of the Code Compliant Alternative would include potential disturbance of contaminated soil and groundwater as well as redevelopment above areas of potential soil and groundwater contamination, which would result in significant construction and operational impacts related to the accidental release of hazardous materials similar to those of the Project and for the same reasons described for the Project. Implementation of Mitigation Measure HAZ-2.1 would reduce these impacts to less than significant with mitigation for the same reasons described for the Project, resulting in slightly fewer impacts than the Project because less excavation and dewatering would occur. (LTS/M)

Cumulative Impacts. As discussed in Section 3.11, *Hazards and Hazardous Materials*, cumulative impacts with respect to aviation hazards, emergency response and evacuation, and hazardous materials management would be less than significant. Impacts related to the accidental release of hazardous materials would be less than significant with implementation of Mitigation Measure HAZ-2.1. This alternative would result in construction and operational impacts similar to those of the Project because the alternative would be located on the same site as the Project. Therefore, impacts would be less than cumulatively considerable with mitigation, similar to the Project. (LTS or LTS/M)

5.6.2.12 Population and Housing

The Code Compliant Alternative would result in approximately 9,333 employees rather than the 6,667 employees assumed under the General Plan (see the *Land Use* section, above, for a description of the General Plan assumptions for the Project site). There would be no onsite residents. Therefore, the number of net new employees would increase by 2,646.

Topics Found to Have No Impact. Like the Project, the Code Compliant Alternative would demolish the existing buildings at the Project site. No existing residential units would be demolished. Therefore, as with the Project, the Code Compliant Alternative would not displace housing or people. (NI)

Population Growth. Construction of the Code Compliant Alternative would temporarily increase construction employment in the city, although to a lesser extent than the Project due to a reduced construction period. The demand for construction employment would likely be met within the existing and future labor market in the city and the county. Therefore, the population within the city or county as a result of workers relocating is not anticipated to increase substantially during Code Compliant Alternative construction, resulting in a less-than-significant impact. (LTS)

Unlike the Project, the Code Compliant Alternative would not result in a direct population increase during operation due to onsite residents. However, the net increase in employment at the Project site during operation compared to the General Plan (i.e., 2,646 employees) would result in an increased housing demand and an influx of new residents in the city and other jurisdictions in the region and may even result in increased housing demand outside the Bay Area. The Code Compliant Alternative could generate 2,646 net new employees, more than the 544 net new employees generated by the Project. Because the Code Compliant Alternative would not provide any onsite housing where these employees could be housed, the net new employees would seek accommodation with the city and in the neighboring region, leading to a greater impact related to unplanned growth than with the Project. Furthermore, neither the Project Sponsor nor the City have control over growth outside the city, nor any means of mitigating impacts, even if they could be identified without speculation; thus, no feasible mitigation has been identified. Therefore, the Code Compliant Alternative would indirectly induce a substantial level of unplanned population growth. Impacts would be significant and unavoidable (SU).

Cumulative Impacts. The Code Compliant Alternative in combination with other projected growth in the city would increase the population and housing in the city. This alternative would result in no onsite residents but an indirect increase in the number of Santa Clara residents as a result of onsite employment. The Code Compliant Alternative could result in unplanned growth, which would be a cumulatively considerable contribution to this impact. However, as discussed above, it is difficult to identify the specific nature, extent, and significance of secondary physical impacts on the environment due to this additional population growth because it would require a regional determination of the precise location of the additional growth, which cannot be known at this time. Therefore, no feasible mitigation has been identified. Because no feasible mitigation measures are available to reduce this impact to a less-than-significant level, the Code Compliant Alternative's contribution to the cumulative impact is considerable. It would be considered significant and unavoidable. (SU)

5.6.2.13 Public Services and Recreation

Impact on Fire Services and Facilities. Construction of the Code Compliant Alternative would result in onsite construction workers but to a lesser extent than the Project. However, construction workers are not expected to put an additional strain on fire protection services that would require the rehabilitation of existing or construction of new facilities. Therefore, similar to the Project, impacts related to fire protection during construction would be less than significant. (LTS)

Operation of the Code Compliant Alternative would result in additional employees in the area; no onsite housing would be included. This could result in an increase in the number of calls for fire protection and emergency services. However, the Santa Clara Fire Department (SCFD) does not use a population-based staffing standard but, rather, bases its staffing on the ability to send trained and equipped personnel within response times. Once operational in 2025, it is expected that Fire Station 10 would provide service at the Project site in the event of a fire or medical emergency, thereby reducing response times for the area. The Santa Clara Municipal Fire and Environmental Code incorporates the 2019 International Fire Code. All new construction under the Code Compliant Alternative would need to be in conformance with the codes, which require new construction to facilitate emergency access and include fire protection systems such as alarm systems and sprinklers. This would reduce the risk of fire in new office and/or R&D buildings under the Code Compliant Alternative. Therefore, although the Code Compliant Alternative would introduce more net new employees than the Project, the Code Compliant Alternative would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered fire protection facilities in order to maintain acceptable service ratios, response times,

or other performance objectives. As such, impacts related to fire protection under the Code Compliant Alternative would be less than significant, similar to the Project. (LTS)

Impact on Polices Services and Facilities. Construction workers under the Code Compliant Alternative would not be expected to increase the Santa Clara Police Department's (SCPD's) service population in a way that would necessitate the expansion or construction of new SCPD facilities. Therefore, similar to the Project, impacts related to police protection during construction would be less than significant. (LTS) However, operation of the Code Compliant Alternative could affect the SCPD by intensifying site activity, adding new employees and visitors, increasing square footage, and increasing traffic incidents. Adding to the daytime service population would lead to an overall increase in service calls to the SCPD. In addition, the need for additional officers and staff due to implementation of the Code Compliant Alternative could result in the need for additional equipment (e.g., radios, vehicles, computers) and a redesign of existing SCPD facilities to resolve capacity issues. Although additional SCPD staff may be required, the Code Compliant Alternative, on its own, would not trigger the need for the construction of a new police facility or the expansion of the existing one. Any additional SCPD services required to meet the needs of the Code Compliant Alternative would be accommodated within existing facilities. In addition, the SCPD participates in a mutual aid agreement with the other law enforcement jurisdictions in Santa Clara County, which could provide services to the Project site, as needed. Therefore, although the Code Compliant Alternative would introduce more net new employees than the Project, it would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered police facilities in order to maintain acceptable service ratios, response times, or other performance objectives. As such, impacts related to police protection would be less than significant, similar to the Project. (LTS)

Impact on School Facilities. Construction workers under the Code Compliant Alternative would not be expected to trigger a need for new schools or require expansion or rehabilitation of existing facilities. Therefore, similar to the Project, impacts related to schools during construction would be less than significant. (LTS)

The Code Compliant Alternative would not generate onsite residents during operation and, therefore, would not have a direct impact on schools. However, as discussed above, the additional employees would result in new residents throughout the city, which would need to be served by the Santa Clara Unified School District (SCUSD). School enrollment in the city has been consistently declining over the last 7 years and is projected to continue to decline over the next decade. Capacity for the additional elementary school and middle school students can currently be accommodated in Kathryn Hughes Elementary and Huerta Middle School. High school capacity throughout the district in general is affected; however, Kathleen MacDonald High, which currently serves only the ninth grade, will be adding a new grade each year as the current student class progresses. Therefore, by the time the Code Compliant Alternative is operational, adequate space would be available for high school students generated as a result of the new onsite employment. In addition, the Code Compliant Alternative would be subject to SB 50 School Impact Fees. Section 65996 of the State Government Code states that the payment of school impact fees established by SB 50 is deemed to constitute full and complete mitigation for school impacts from development that may be required from a developer by any State or local agency. Although the payment of the school impact fee by the Project Sponsor could contribute toward the construction or expansion of schools, any actual construction or expansion of school facilities would not be a direct result of the alternative and would be required to undergo a separate CEQA review process. Therefore, the Code Compliant Alternative would not trigger the need for the expansion or construction of new schools, resulting in a less-than-significant impact, similar to the Project. (LTS)

Impact on Parks and Recreation Facilities. Construction of the Code Compliant Alternative would not be subject to City Code Chapter 17.35. As such, construction impacts of this alternative related to parks would be less than significant. (LTS)

Because of the onsite employment, operation of the Code Compliant Alternative would increase the employee population in the area and, therefore, could incrementally increase the demand for local neighborhood and community parks and recreational facilities. However, City Code Chapter 17.35, which requires new residential development to provide developed park and recreational facilities, is applicable only to residential development and, therefore, would not apply to the Code Compliant Alternative. The existing zoning requires landscaped areas for employee activities and richly landscaped areas to create an office campus in a parklike setting. Therefore, the Code Compliant Alternative would provide open space for the employees and would not increase the daytime demand of recreational areas. Because the Code Compliant Alternative would provide recreational open space that would meet the demands of employees, it would most likely not increase demand on existing parks and recreational spaces. Therefore, very little physical deterioration would occur at these sites as a result of the Code Compliant Alternative. The Code Compliant Alternative would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered park facilities in order to maintain acceptable service ratios or other performance objectives. As such, impacts related to parks would be less than significant, similar to the Project. (LTS)

Impact on Library Facilities. Under this alternative, onsite construction workers would most likely be drawn from the existing and future labor market in the city and the county. Therefore, as with the Project, construction of the Code Compliant Alternative would not put additional strain on library services that would require the rehabilitation of existing or construction of new library facilities, resulting in less-than-significant impacts. (LTS) However, the addition of employees on the Project site during operation would increase the population of library users. Regardless, based on ABAG projections and existing library space, population increases within the city by 2040 would not result in an exceedance of the suggested minimum of 0.3 square feet of library space per capita. Therefore, the Code Compliant Alternative would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered library facilities in order to maintain acceptable service ratios or other performance objectives. Similar to the Project, the Code Compliant Alternative would result in a less-than-significant impact related to libraries. (LTS)

Cumulative Impacts. Cumulative development in the city would result in increased demand for fire services, police services, school facilities, parks, recreational facilities, and library facilities to accommodate growth. As with the Project, cumulative impacts on public services would be significant if the firefighter and police service response time is degraded, and new school, park, and library facilities are not constructed to accommodate this growth. The Code Compliant Alternative would result in fewer additional employees than the Project. However, this alternative would not include residential uses at the Project site. As with the Project, although additional firefighters and police could be needed for the Code Compliant Alternative to maintain response times, staffing increases could be accommodated within existing facilities or within the new Fire Station 10. With the provision of the City's school impact fees and the Project not being subject to City Code Chapter 17.3, the cumulative impact on parks and recreation and schools would be less than significant. Therefore, as with the Project, the Code Compliant Alternative's cumulative impacts on public service providers would be less than cumulatively considerable. (LTS)

5.6.2.14 Tribal Cultural Resources

Impacts on Tribal Cultural Resources. Similar to the Project, operation of the Code Compliant Alternative would not result in impacts on tribal cultural resources. However, construction of the Code Compliant Alternative could result in impacts. The Northwest Information Center (NWIC) records search and literature review indicated no previously recorded cultural resources within or adjacent to the Project site. This includes tribal cultural resources listed or eligible for listing in the California Register of Historical Resources (CRHR) or a local register of historical resources. Similar to the Project, under the Code Compliant Alternative, archaeological deposits that qualify as tribal cultural resources could be encountered during excavation. However, there would be fewer impacts under this alternative as no below-grade parking garage would be developed and the area of disturbance would be significantly smaller than that of the Project. Overall, there would still be a significant impact under the Code Compliant Alternative because excavations could encounter tribal cultural resources. However, similar to the Project, implementation of the Mitigation Measures CUL-2.1, CUL-2.2, and CUL-2.3 would reduce impacts on tribal cultural resources to less than significant. (LTS/M)

Cumulative Impacts. Cumulative development in the city would result in demolition or alteration of non-archaeological and archaeological resources that may qualify as tribal cultural resources under CEQA. Because the Project site is situated in an archeologically sensitive area, the possibility exists of encountering unknown tribal cultural resources during ground-disturbing activities associated with construction of the Code Compliant Alternative. Therefore, the Code Compliant Alternative similar to the Project, could contribute to a cumulative loss of tribal cultural resources. However, implementation of Mitigation Measures CUL-2.1, CUL-2.2, and CUL-2.3, which require an archaeological monitoring plan, cultural resources sensitivity training for all construction crews participating in ground-disturbing activities, and stopping work if archaeological deposits are encountered during ground-disturbing activities, would reduce impacts to less than significant, similar to the Project. (LTS/M)

5.6.2.15 Utilities and Service Systems

Topics Found to Have No Impact. Similar to the Project, the Code Compliant Alternative would not result in the generation of unique types of solid waste that would conflict with existing regulations regarding solid waste disposal. Therefore, there would be no impact related to complying with applicable federal, State, and local statutes and regulations, the same as the Project. (NI)

Utility Relocation, Construction, or Expansion. Similar to the Project, the Code Compliant Alternative would upgrade all utilities to meet the demand of the alternative's additional employees in the area. The construction of utility infrastructure improvements would have the potential to cause significant adverse environmental effects, such as fugitive dust generation, noise generation, sedimentation, and erosion. The proposed utility expansions are a part of the Project description for this alternative, and the potential impacts that would result from construction of the facilities are evaluated throughout this chapter. In addition, implementation of Mitigation Measures WQ-3.1 and WQ-3.2 would ensure that potential construction impacts of the Project related to exceeding the capacity of existing or proposed stormwater drainage systems would be less than significant with mitigation. Specifically, the mitigation measures would require a hydraulic study to be prepared to demonstrate that existing and proposed stormwater drainage systems would be capable of conveying 10-year peak runoff from the Project site and ensure that such flows during a 100-year flood event would remain within public roadway limits and would not extend into private property. Furthermore, modifications to the Project design would be implemented, if necessary, and a construction-period stormwater drainage control plan would be implemented. Therefore, similar to the Project, the Code Compliant Alternative would not require or result in the

relocation or construction of new or expanded utility infrastructure, beyond the facilities already included in the Project description for this alternative and evaluated in this chapter, the construction or relocation of which could cause significant environmental effects. This impact would be less than significant with mitigation. (LTS/M)

Water Supply. Construction activities under the Code Complaint Alternative would be served by existing water systems and infrastructure. Because there is adequate water service available at the Project site, construction activities that require water, such as dust suppression and dewatering, would be met through the metered use of water conveyed by water trucks and tanks. Furthermore, because of the need for fewer construction activities under this alternative compared to the Project, construction of the Code Compliant Alternative would use less water. Therefore, the impact on water supplies during construction would be less than significant, similar to the Project. (LTS)

During operation, the Project's total water demand would be 646.4 acre-feet per year. The Code Compliant Alternative would involve less overall development compared to the Project; therefore, it is assumed that water demand associated with this alternative would be equal to or less than the Project's water demand. When taking into account the water demand of other approved development as well as the water demand of the Code Compliant Alternative, there would be an adequate water supply under the normal-year, single dry-year, and five consecutive dry-year scenarios, as with the Project. Therefore, as with the Project, implementation of the Code Compliant Alternative would have a less-than-significant impact on water supplies. (LTS)

Wastewater Treatment Capacity. Construction activities associated with the Code Compliant Alternative, which would be less than the activities associated with Project, would be served by the existing sewer system and infrastructure. Because portable restrooms would be temporarily installed onsite, construction would not be anticipated to result in substantially elevated wastewater levels in the local sanitary sewer system. In addition, dewatering discharge rates would be less than peak storm flows and within system capacity. Therefore, similar to the Project, this alternative would result in a less-than-significant impact on wastewater treatment providers during construction. (LTS)

During operation, the Project's estimated base wastewater flow (BWF) would be 51,533 gallons per day (gpd) by 2035. The Code Compliant Alternative would involve less overall development compared to the Project; therefore, it is assumed that wastewater demand, which would be similar to water demand associated with this alternative, would be equal to or less than the Project's wastewater demand. Therefore, as with the Project, implementation of the Code Compliant Alternative would also require sewer modifications (e.g., the use of 12-inch-diameter pipes) to maintain consistent sizing between existing upstream and downstream 12-inch segments. Impacts on wastewater facilities would be less than significant. (LTS)

Solid Waste Capacity. Demolition of onsite facilities under the Code Compliant Alternative would generate the same amount of waste as the Project and would not constitute a substantial portion of the solid waste facilities' daily permitted capacity. Therefore, the solid waste facilities that would serve the Project site during construction would be able to accommodate the construction waste generated by the Code Compliant Alternative. (LTS)

The Project would generate approximately 6,235 tons per year of solid waste (without any diversion), or 2,182 tons per year with a 65 percent diversion rate. The Code Compliant Alternative would involve less overall development compared to the Project; therefore, it is assumed that solid waste generation associated with this alternative would be equal to or less than the Project's solid waste generation. The amount of solid waste produced on the Project site would be small compared to the remaining daily

permitted capacity at Newby Island Landfill. Therefore, similar to the Project, the Code Compliant Alternative would be served by a landfill with adequate permitted capacity to accommodate its solid waste disposal needs. (LTS)

Cumulative Impacts. The Code Compliant Alternative would result in the same utilities and service system impacts as the Project (or slightly fewer). Therefore, cumulative impacts under the Code Compliant Alternative, including impacts related to utility relocation, water supply, wastewater treatment capacity, and solid waste capacity, would be less than cumulatively considerable. (LTS)

5.6.3 Reduced Scale Alternative

The Reduced Scale Alternative would reduce development on the Project site by 30 percent proportionately compared to the Project. This alternative would result in up to 3,440,000 gsf of new development, including approximately 1,260,000 gsf of residential uses (up to 1,260 units); approximately 2,180,000 gsf of office/R&D space; neighborhood retail uses; childcare facilities; and community space. In addition, the amount of publicly accessible open space and private open space would also be reduced by 30 percent, resulting in approximately 10 acres of public parks, 6 acres of publicly accessible open space, and 10 acres of private open space for residential and office uses. Likewise, the number of parking spaces included as part of this alternative would be reduced to approximately 6,300 spaces.

5.6.3.1 Land Use

The Reduced Scale Alternative would result in approximately 2,709 residents on the Project site. Because 6,667 employees were assumed in the General Plan for the Project site, the Reduced Scale Alternative would generate fewer employees than planned for, resulting in 1,615 fewer net new employees. Compared to the Project, which would generate 544 net new employees, this is a considerable decrease.

Topics Found to Have No Impact. As with the Project, the Reduced Scale Alternative would not physically disrupt or divide an established community, resulting in no impact. (NI)

Conflicts with Adopted City Land Use Plans and Policies Regarding the Jobs/Housing Balance. A goal of the City's General Plan policies is, in part, to reduce environmental impacts by promoting a balance in the jobs/housing ratio. The City's General Plan policies would facilitate this goal by promoting the construction of more housing in the relatively job-rich Silicon Valley, thereby helping to reduce long-distance commutes by employees to the Silicon Valley. Conflicts with the City's General Plan policies aimed at improving the jobs/housing balance in the city would not occur during construction of the Reduced Scale Alternative because no permanent jobs or residences would be added during this phase. In addition to providing residential units, the Reduced Scale Alternative would provide approximately 900,000 gsf less office/R&D space than was assumed for the Project site as part of the Yahoo! Campus Planned Development Zoning and Development Agreement under the General Plan. Therefore, employment growth associated with operation of the Reduced Scale Alternative would improve the jobs/housing imbalance in the city, although to a lesser extent than the Project because fewer residential units would be provided.

Consistent with the overarching goals and policies of Plan Bay Area and the City's General Plan, the Reduced Scale Alternative would provide mixed-use development in proximity to transit and be within walking distance of multiple VTA light rail stations as well as Great America Station, which is served by Amtrak's Capitol Corridor and Altamont Corridor Express. In addition, the Reduced Scale Alternative would be largely consistent with surrounding uses, including Levi's Stadium, the Hilton Santa Clara Hotel,

Convention Center, California's Great America Amusement Park, and the Patrick Henry Specific Plan adjacent to the site. Overall, given the alternative's adjacency to public transit and compatibility with surrounding uses, the alternative would be largely consistent with the transit-oriented development goals and policies outlined in Plan Bay Area and the City's General Plan.

Compared to the Project, the Reduced Scale Alternative would result in 30 percent fewer residential uses (approximately 2,709 new residents in 1,260 units) and 30 percent fewer employees (approximately 1,615 fewer net new employees than assumed in the General Plan). Although this alternative would have a smaller effect on the jobs/housing imbalance than the Project, it would still improve the jobs/housing ratio compared to what is expected to result from the current City General Plan projections in 2035 (2.15) and ABAG's projections in 2040 (2.99) without the alternative. The Reduced Scale Alternative would decrease the jobs/housing imbalance to 2.12 in 2035 (under the General Plan projections) and to 2.93 in 2040 (under ABAG projections). In comparison, the Project would result in a slightly lower imbalance of 2.11 in 2035 and 2.91 in 2040. Therefore, although the Reduced Scale Alternative would result in a lesser improvement on the jobs/housing balance than the Project, there would be no impact. (NI)

Consistent with Airport Land Use Plan. The ALUC CLUP outlines the types of land uses that are compatible in the vicinity of SJC. The determination of Project consistency with the CLUP considers issues such as general compatibility, safety, height, and noise. The Project site is adjacent to, but outside of, the AIA. Furthermore, the Project site is outside CLUP safety zones and noise contours. However, the Project site does fall within the maximum structure height contour range of 350 to 380 feet above ground level, per SJC's FAA Regulation Part 77, Surfaces Map. In accordance with the proposed General Plan and zoning amendments, the maximum heights of new buildings within the Project area would comply with the height regulations and restrictions established by FAA and CLUP criteria. Applicable maximum height requirements would vary across the Project area under the Reduced Scale Alternative, but the maximum height is expected to be slightly less than the approximately 202 feet above finished grade under the Project due to the 30 percent reduction in floor area. Compliance with FAA and CLUP regulations would ensure that the Reduced Scale Alternative would not introduce new buildings that would exceed applicable CLUP building height limits. Therefore, development of the Reduced Scale Alternative would be consistent with height clearances established in the CLUP. Given the Reduced Scale Alternative's consistency with CLUP policies regarding safety, heights, and noise, as well as FAA Regulation Part 77 notification requirements, this alternative would result in a less-than-significant land use impact with respect to CLUP policies, the same as the Project. (LTS)

Conflicts with Adopted City Land Use Plans and Policies Other than the Jobs/Housing Balance and Airport Land Use Plan. Similar to the Project, the Reduced Scale Alternative would not be consistent with the existing General Plan land use designation. Inconsistency with land use designations does not, by itself, constitute a significant environmental impact because the land use designations were not enacted to mitigate or lessen environmental effects as a primary objective. In order to accommodate high-intensity, urban-oriented development, a new General Plan land use classification (Urban Center Mixed Use) would be proposed within the Mixed-Use category for the Reduced Scale Alternative. The proposed General Plan amendment, including the land use classification, would meet the intent of the land use policies. A proposed project can be generally consistent with a general plan, even though the project may not promote every applicable goal and policy. Because of the general consistency with land use policies, any potential conflicts with the General Plan related to the new land use classification under the Reduced Scale Alternative would be less than significant, similar to the Project. (LTS)

Cumulative Impacts. The Reduced Scale Alternative would introduce a project with approximately 30 percent fewer employees and residents than the Project. Because the Reduced Scale Alternative would

improve the city's overall jobs/housing balance, there would be no impact, and the Reduced Scale Alternative would not contribute to a cumulative impact. Similar to the Project, the Reduced Scale Alternative would be generally consistent with the applicable goals, policies and actions outlined in the CLUP and the City General Plan. Therefore, because of the alternative's general consistency with land use policies, the Reduced Scale Alternative would not contribute to a significant cumulative impact, and any conflicts with the General Plan and CLUP would be less than significant (LTS).

5.6.3.2 Transportation

Adopted Plans, Ordinances, and Policies Regarding Roadways and Transit, Bicycle, and Pedestrian Facilities. The Reduced Scale Alternative would reduce development on the Project site by 30 percent proportionately as compared to the Project. This alternative would not conflict with applicable plans, ordinances, and policies that address the circulation system. Under this alternative, the pedestrian, bicycle, and transit facilities are expected to be the same as under the Project, therefore it would not cause impacts on transit facilities, bicycle facilities, or pedestrian facilities and no conflicts with adopted plans, ordinances, or policies would result. Therefore, the Reduced Scale Alternative would result in a less-than-significant impact related to conflicts with adopted plans, ordinances, or policies addressing roadways and transit, bicycle, and pedestrian facilities, similar to the Project. (LTS)

Vehicle Miles Traveled. Under this alternative, ADT from new development within the Project area would decrease compared to the Project. Total VMT would also decrease compared to the Project (due to the decrease in the number of commuting residents and employees); however, the per capita or per service population VMT would tend to be similar to the Project due to the similar residential and employment characteristics of this alternative. Similar to the Project, the Reduced Scale Alternative would qualify as a transit supportive project and, thus, be assumed to have a less-than-significant impact on VMT. (LTS)

Hazards Due to Design Features or Incompatible Uses and Emergency Access. This alternative would include design features similar to the Project intended to reduce conflicts between vehicles and alternative modes of travel; thus, less-than-significant impacts are expected from hazardous design features or incompatible uses. Emergency access to the Project site under the Reduced Scale Alternative would be similar to under the Project because site circulation would be the same, resulting in less-than-significant impacts. (LTS)

Construction Impacts.[10] The Reduced Scale Alternative would generate fewer truck trips during construction and fewer trips by construction workers compared to the Project. Heavy-duty truck trips are excluded from VMT considerations; therefore, the hauling of demolition debris would not affect VMT. Furthermore, the VMT generated by construction workers' trips to and from the site would be less than the VMT generated upon build-out of the development, resulting in a less-than-significant impact. Similar to the Project, the Reduced Scale Alternative would require preparation of a construction management plan that would be reviewed and approved by the Public Works Department, similar to requirements under Project Mitigation Measure TRA-1.1 (Construction Management Plan). This mitigation measure would ensure that the impacts related to consistency with adopted plans, ordinances, and policies addressing the circulation system; hazards due to a geometric design feature or incompatible uses; and inadequate emergency access would be less than significant with mitigation. (LTS/M)

[10] Construction impacts are applicable to topics such as conflicts with adopted plans, ordinances, or policies addressing roadways and transit, bicycle, and pedestrian facilities; hazardous design features or incompatible uses; and emergency access.

Cumulative Impacts. The Reduced Scale Alternative combined with cumulative projects would not result in cumulative impacts for any transportation topic. Future development would be required to comply with existing regulations, including General Plan policies and zoning regulations, and City standards, that have been prepared to minimize impacts related to transportation and circulation, including avoiding hazards due to design features or incompatible uses and inadequate emergency access. In addition, as under the Project, the Code Compliant Alternative and cumulative development would require preparation of a construction management plan that would be reviewed and approved by the Public Works Department, similar to requirements under Project Mitigation Measure TRA-1.1 (Construction Management Plan). Therefore, the Reduced Scale Alternative in combination with cumulative projects would have a less-than-significant cumulative transportation impact with mitigation, similar to the Project. (LTS/M)

5.6.3.3 Air Quality

Conflict with or Obstruct Implementation of the Air Quality Plan. The Reduced Scale Alternative would reduce development at the site by 30 percent and would thus result in less construction and operational activity. The proposed development under the Reduced Scale Alternative would result in similar land uses as the Project, but total development would be less. The Project would be consistent with the BAAQMD's 2017 Clean Air Plan, because it would support the primary goals of the plan, include applicable control measures from the plan, and not disrupt any of the measures from the plan. Like the Project, the Reduced Scale Alternative would include energy saving features and sustainability measures, such as LEED certification, alternative transit options, landfill diversion techniques, and water-saving features. The Reduced Scale Alternative would not disrupt implementation of any of the measures of the plan. Thus, similar to the Project, the Reduced Scale Alternative would not conflict with the applicable regional air quality plans. Therefore, impacts are considered less than significant, the same as the Project. (LTS)

Construction Criteria Air Pollutant Emissions. The Reduced Scale Alternative would result in 30 percent less building area than the Project, which would very likely result in a shorter construction period. However, in order to maintain a shorter construction period, it is likely that the daily construction activities under the Reduced Scale Alternative would be similar to the Project. Therefore, daily construction emissions generated by the Reduced Scale Alternative would most likely be similar to those of the Project but with a shorter duration overall. Similar to the Project, development of the Reduced Scale Alternative would very likely exceed the BAAQMD's significance thresholds during construction. Because daily emissions would most likely be similar to those of the Project, similar mitigation would be required such as Mitigation Measures AQ-2.1 and AQ-2.2.

The construction of the Project would generate daily exhaust emissions of nitrous oxides (NO_X) in exceedance of the BAAQMD significance threshold, and thus the Reduced Scale Alternative would most likely generate similar levels of daily NO_X emissions in exceedance of the BAAQMD threshold. Similar to the Project, implementation of Mitigation Measures AQ-2.1 and AQ-2.2 would reduce the impact and would bring daily NO_X emissions below the BAAQMD threshold. Therefore, with implementation of Mitigation Measures AQ-2.1 and AQ-2.2, these impacts would be less than significant with mitigation, the same as the Project. (LTS/M)

Operational Criteria Air Pollutant Emissions. Similar to the Project, operation has the potential to create air quality impacts, primarily from mobile and area sources. Vehicle traffic would include daily trips from residents, employees, customers, delivery trucks, and waste management trucks. Since the Reduced Scale Alternative would result in fewer vehicle trips from the reduction in building space, employees, and residents, the operational air quality impacts would be reduced. The amount of trips associated with the

Reduced Scale Alternative would be approximately 30 percent less than the Project. However, as shown in Table 3.3-10, even with Mitigation Measures AQ-2.3 through AQ-2.6, the operational-only emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ would exceed the BAAQMD thresholds of significance. Assuming that emissions of ROG and NO_X would roughly decrease by 30 percent,[11] the Reduced Scale Alternative would still very likely result in emissions of ROG and NO_X that would be above the thresholds of significance because of the magnitude of the threshold exceedances. Emissions of PM_{10} and $PM_{2.5}$ from the Project would be roughly 20 percent above the threshold; thus, it is possible that the Reduced Scale Alternative would result in emissions that would be below the PM_{10} and $PM_{2.5}$ thresholds.

With respect to construction and operations overlap, as shown in Table 3.3-11, the Project would result in emissions of ROG, NO_X, and PM_{10} that would exceed BAAQMD thresholds of significance. Thus, if construction and operations were to overlap under the Reduced Scale Alternative, it is likely that emissions would also exceed the thresholds during the period of overlap.

Although this alternative's criteria-pollutant emissions would be less than those of the Project, they would still be significant. Similar to the Project, Mitigation Measures AQ-2.3 through AQ-2.6 would reduce the impact but not to below the BAAQMD thresholds, and operational emissions would be significant and unavoidable, similar but slightly less than the Project. (SU/M)

Exposure of Sensitive Receptors to Carbon Monoxide Hot-spots. Traffic generated by the Project would have the potential to create CO hot spots at nearby roadways and intersections. However, because the Reduced Scale Alternative would generate less traffic than the Project, the CO concentrations at potential hot-spots would be less than what is anticipated for the Project. As evaluated in Table 3.3-13, worst-case CO concentrations from Project implementation are well below the CAAQS and NAAQS. Thus, CO concentrations with implementation of the Reduced Scale Alternative are not expected to contribute to any new localized violations of the 1-hour or 8-hour ambient air quality standards, resulting in less-than-significant impacts that would be similar to but slightly less severe than those of the Project. (LTS)

Construction and Operational TAC Emissions. Diesel-fueled engines, which generate $PM_{2.5}$ and DPM, would be used during construction of the Reduced Scale Alternative, similar to the Project. In addition, during operations, the same types of $PM_{2.5}$ and DPM sources would be present but to a lesser degree. For example, there would be approximately 30 percent fewer vehicle trips, and fewer emergency generators.

Multiple sensitive receptors are located within 1,000 feet of the Project site. In addition, new receptors would live and work at the Project area while subsequent phases of construction are on-going. Construction of the Reduced Scale Alternative would result in less construction in a shorter period of time, thus reducing the amount of emissions and duration of exposure compared to the Project. As shown in Table 3.3-14, for construction-only impacts, the Project would not cause any significant health risks or $PM_{2.5}$ concentrations; thus, it is likely that the Reduced Scale Alternative would not result in significant health-related impacts during the construction-only period. However, for Project operation, as well as construction and operations overlap, there would be a significant cancer risk in one scenario and a significant $PM_{2.5}$ impact in six scenarios.

The significant cancer risk for the Project would occur at onsite receptors under the construction-and-operations-overlap scenario. For the Reduced Scale Alternative, the cancer risk would be less than the risk from the Project because the construction period would be shorter and there would be fewer vehicles and emergency generators during operations. The cancer risk may be below the BAAQMD threshold; however,

[11] The actual decrease in emissions would be less than 30 percent because there are non-mobile sources of emissions as well.

even though it would be lower than the Project's risk, it is possible that the risk would remain above the threshold.

The significant $PM_{2.5}$ concentrations for the Project would occur at offsite and onsite receptors and would cause impacts that are much greater than the BAAQMD threshold. At some receptors, the $PM_{2.5}$ concentration would be 10 times the threshold; as such, even with reduced construction duration, vehicle traffic, and emergency generators, the Reduced Scale Alternative would result in $PM_{2.5}$ concentrations that are above the BAAQMD threshold.

Mitigation Measures AQ-2.1, AQ-2.2, and AQ-2.6 would be implemented to reduce Project-related impacts, and would also be required for the Reduced Scale Alternative. However, even with this mitigation, impacts for this alternative would be above the thresholds and thus significant. Therefore, this impact would be significant and unavoidable, similar but slightly less than the Project. (SU/M)

Exposure of Sensitive Receptors to Asbestos During Construction. Asbestos is a naturally-occurring mineral that was previously used in building construction due to its heat resistance and strong insulating properties. As with the Project, asbestos impacts could occur if demolition of existing buildings containing asbestos or disturbance of any features exposes workers. The Reduced Scale Alternative would comply with BAAQMD Regulation 11, Rule 2, which would control emissions of asbestos to the atmosphere during demolition activities. Accordingly, this impact would be less than significant, the same as the Project. (LTS)

Objectionable Odors. Similar to the Project, potential odor sources from construction of the Reduced Scale Alternative include diesel exhaust from heavy-duty equipment, diesel exhaust from delivery vehicles and weekly trash pick-up, and the use of architectural coatings during maintenance activities; limited odors may also result from residential cooking appliances during operations. These odors would be limited to localized areas. Although exhaust- and paint-related odors may be considered adverse, they would not affect a substantial number of people. Given mandatory compliance with BAAQMD, no construction or operational activities for the Reduced Scale Alternative would create a significant level of objectionable odors. Accordingly, this would be less than significant, the same as the Project. (LTS)

Cumulative Impacts. The Reduced Scale Alternative would result in less criteria air pollutant emissions than the Project but would still contribute considerably to significant cumulative regional air pollutant levels, because the thresholds of significance, which are inherently cumulative, would be exceeded. With implementation of Mitigation Measure AQ-2.1, which requires the use of clean diesel-powered or electric construction equipment, and Mitigation Measure AQ-2.2, which requires implementation of BAAQMD basic construction mitigation measures to reduce dust emissions, the alternative's construction-generated emissions would not exceed applicable BAAQMD emissions thresholds. With implementation of Mitigation Measures AQ-2.3 through AQ-2.6, which require the use of coatings and cleaning supplies with low VOC content, zero-emission landscape equipment, and U.S. Environmental Protection Agency Tier 4 Final stationary emergency generators, this alternative's operational emissions of ROG, NO_X, and PM_{10}, as well as construction and operational overlap emissions of ROG and NO_X, would most likely exceed BAAQMD mass emissions thresholds. There are no further mitigation strategies to reduce emissions from these activities. (SU/M)

This alternative would result in DPM and $PM_{2.5}$ emissions that would contribute to cumulative exposure to onsite and offsite sensitive receptors, including future receptors at the site of the Patrick Henry Specific Plan. The amount of emissions would be less than the Project under this alternative, as noted above. As evaluated in Tables 3.3-15 through 3.3-18, the cumulative exposure during Project operations and construction and operation overlap would be greater than BAAQMD cumulative thresholds for $PM_{2.5}$ at onsite and offsite receptors. Due to the magnitude of exceedances for the cumulative exposure to $PM_{2.5}$,

even the reduced density for this alternative would not prevent significant impacts. Like the Project, Mitigation Measures AQ-2.1 and AQ-2.2 would reduce DPM and $PM_{2.5}$ concentrations. Mitigation Measure AQ-2.6 would reduce DPM and $PM_{2.5}$ concentrations through the use of Tier 4 emergency generators. Still, the $PM_{2.5}$ concentrations resulting from operation, as well as construction and operational overlap, would very likely exceed the BAAQMD $PM_{2.5}$ cumulative threshold. There are no additional onsite mitigation measures to reduce the number of vehicle trips to and from the site. Thus, health risks and $PM_{2.5}$ concentrations would exceed BAAQMD thresholds after incorporation of Mitigation Measures AQ-2.1, AQ-2.2, and AQ-2.6. No further feasible mitigation has been identified that would eliminate the significant cumulative impact on sensitive receptors. However, the alternative's contribution to this impact would be less than the Project's contribution. (SU/M)

5.6.3.4 Greenhouse Gas Emissions

Generation of GHG Emissions During Construction and Operation. The Reduced Scale Alternative would result in 30 percent less building area than the Project, which may result in a shorter construction period and thus less GHG emissions. GHG emissions from construction were determined to be less than significant with Mitigation Measure GHG-1.1 for the Project because implementation of construction-related measures, as recommended by BAAQMD, would reduce GHG emissions. This mitigation measure would also be required for the Reduced Scale Alternative. BAAQMD has noted that construction emissions represent a very small portion of a project's lifetime GHG emissions. Therefore, the impact would be less than significant with mitigation, similar to, but slightly less than, the Project. (LTS/M)

Similar to the Project, operation has the potential to generate GHG emissions. This alternative would result in less building area than the Project and fewer daily vehicle trips, so the operational GHG emissions would be less than the Project.

It is currently unknown whether the Reduced Scale Alternative would be consistent with the City's CAP. Because consistency with the City's CAP requires a detailed assessment of a project's features, it cannot be determined whether future development would be consistent or conflict with the plan. The level of detail necessary to determine consistency with the City's CAP is greater than the level of detail that is appropriate for analyzing a project's alternatives under CEQA. However, it is likely that this alternative would result in design features similar to those of the Project and be consistent with the City's CAP. This impact would be less than significant, similar to the Project. (LTS)

Conflicts with Applicable Plans and Policies. It is currently unknown whether the Reduced Scale Alternative would conflict with any applicable plans or policies adopted to reduce GHG emissions, because the specific design features of this alternative have not been determined. Because consistency with the City's CAP,[12] CARB's 2022 Scoping Plan, and Plan Bay Area 2050 require a detailed assessment of a project's features, it cannot be determined with certainty whether this alternative would be consistent with or conflict with these plans. The level of detail necessary to determine consistency with these plans is greater than the level of detail that is appropriate for analyzing a project's alternatives under CEQA. However, it is likely that this alternative would result in design features similar to those of the Project and be consistent with the CAP, 2022 Scoping Plan, and Plan Bay Area 2050. This impact would be less than significant, similar to the Project. (LTS)

[12] The CAP checklist notes that projects involving General Plan amendments may not use the CAP checklist and should quantify emissions. Similar to the Project, the Reduced Scale Alternative would involve a General Plan amendment. Nonetheless, the CAP checklist measures would be applicable to this alternative and, if implemented, would reduce generated GHG emissions.

5.6.3.5 Energy

Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources. The Reduced Scale Alternative would result in 30 percent less building area than the Project, which may result in a shorter construction period, although the extent of construction relative to the Project is not known with certainty. Any differences would most likely be small relative to total energy usage during construction. Construction energy usage under this alternative would be reduced through the use of energy-efficient construction equipment and trucks as well as alternative fuels. Design features implemented for this alternative and Mitigation Measure GHG-1.1 would reduce the amount of fossil fuels consumed during construction as well as the energy intensiveness associated with building materials, including discarded construction and demolition waste. As with the Project, impacts would be less than significant with mitigation. (LTS/M)

During operations of this alternative, compliance with CALGreen, LEED building requirements and implementation of a TDM program would result in operational transportation energy savings, similar to the Project. Given the reduction in building area, the Reduced Scale Alternative would result in lower energy consumption compared with the Project. Therefore, the Reduced Scale Alternative would not result in inefficient, wasteful, or unnecessary consumption of energy during operations. The impacts would be less than significant, similar but slightly less than the Project. (LTS)

Conflict with Energy Plan. As with the Project, the Reduced Scale Alternative would be required to comply with State and local renewable energy and energy efficiency plans. As a result, it would benefit from renewable energy development and increases in energy efficiency. Building energy efficiency is also expected to increase as a result of compliance with Title 24 building codes, which are expected to move toward zero net energy for new construction and 100 percent renewable energy under SB 350 and SB 100 regulations. Therefore, the Reduced Scale Alternative would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. The impact would be less than significant, similar to the Project. (LTS)

Cumulative Impacts. Similar to the Project, it is anticipated that future energy users will become more efficient and less wasteful over time and will not create significant cumulative energy impacts. Because a significant cumulative energy impact would not result under cumulative conditions, the Reduced Scale Alternative would not contribute to a cumulative impact. Therefore, the impact would be less than significant, similar to the Project. (LTS)

5.6.3.6 Noise

Construction Impacts. The Reduced Scale Alternative would include a 30 percent reduction in the amount of floor area for office uses. Overall, the intensity and location of construction under this alternative would be very similar to that of the Project, because this alternative would involve the same types of construction equipment and similar worst-case distances to noise sensitive land uses as the Project. As with the Project, construction noise impacts under the Reduced Scale Alternative would be significant during daytime hours from a substantial increase in noise (i.e., greater than a 10 dB increase above existing levels) and during the nighttime hours from exceedance of the City Code noise limit. Implementation of Mitigation Measures NOI-1.1 would reduce construction noise but not to a less-than-significant level. Like with the Project, it cannot be determined with certainty that the construction noise reduction control plan would sufficiently reduce noise in all circumstances. Therefore, the impact would be significant and unavoidable with mitigation, similar to the Project. (SU/M)

Noise from construction haul trucks, which was found to be less than significant for the Project, would also be less than significant for this alternative because there would be fewer haul trucks than under the Project. (LTS)

For vibration impacts during construction, the Reduced Scale Alternative, although it would have less development, may still require the use of pile drivers. The use of pile drivers would result in significant annoyance-related impacts even with Mitigation Measure NOI-3.1 because it cannot be determined that the measure would sufficiently reduce vibration in all circumstances. Like the Project, damage-related impacts would be less than significant, but annoyance-related impacts would be significant and unavoidable with mitigation. (SU/M)

Traffic Noise Impacts. The development of the Reduced Scale Alternative would result in an increase in vehicle trips and employment growth as compared to existing conditions, which would lead to an increase in traffic in the vicinity of the Project site. This alternative is estimated to generate up to 25,576 external vehicle trips, which is approximately 30 percent less than the 36,981 vehicle trips from the Project. Because the Reduced Scale Alternative would only generate 70 percent of the total vehicle trips generated by the Project, the resulting traffic noise would be slightly less with this alternative than with the Project. As explained in Section 3.6, *Noise*, the Project would result in significant traffic noise impacts at a roadway segment if the Project-related increase in noise is 3 dBA or greater. As evaluated in Table 3.6-11, the greatest increase in noise at any roadway from Project-related traffic would be 2.9 dB, which does not constitute a significant noise impact. Since the Reduced Scale Alternative would result in 30 percent less traffic than the Project, the increase in noise at all roadway segments would very likely be less than the Project. Therefore, because the greatest Project-related increase in traffic noise would be 2.9 dB and this alternative would result in a lesser increase, this alternative would not exceed the 3 dB threshold and would result in a less-than-significant impact, similar to but slightly less than the Project. (LTS)

Operational Noise Impacts from Stationary Sources and Other Operational Sources. Like the Project, the Reduced Scale Alternative would result in a mixed-use of building types. Stationary sources and other operational sources associated with these uses could result in noise levels in excess of the City's noise limits. In general, noise impacts from operational sources would be very similar for the Project and Reduced Scale Alternative, because, although this alternative would have 30 percent less development, the worst-case distances between noise source and receptor could be approximately the same. Impact NOI-2 for the Project notes that, at a distance of 50 feet, onsite noise-sensitive land uses could experience a noise limit exceedance from the operation of mechanical equipment and testing of emergency generators. For this alternative, onsite land uses may also be within 50 feet of mechanical equipment and/or emergency generators. As such, the impact is significant, but, like the Project, would be less than significant with implementation of Mitigation Measure NOI-2.1. With the noise reduction plan, impacts from stationary noise equipment would be less than significant with mitigation, similar to the Project. (LTS/M) Noise impacts associated with the exposure of new residences to stationary sources of noise is therefore significant with the Reduced Scale Alternative as well. Implementation of Mitigation Measure NOI-2.1 would ensure that potential noise impacts would be addressed through design (i.e., enclosures around noise-generating equipment, setbacks to maximize distance to residences, and noise-reducing treatments in new buildings) and would reduce this impact to a less-than-significant level, similar to the Project. (LTS/M)

Noise from other sources associated with operations, such as amplified music and sound from events, human speech and music at the outdoor balconies, truck loading, and parking garage activity, would be similar in magnitude to noise associated with the Project. Although this alternative would result in less development, the level of noise from events, balconies, truck loading, or parking garage activity would not

differ substantially. The occurrence of the noise may be more frequent with the Project, but the noise levels would be approximately the same. For the reasons discussed in Impact NOI-2, noise from these sources would be less than significant for the Project and thus also less than significant for the Reduced Scale Alternative. (LTS)

Aircraft Noise Impacts. The area sited for development with the Project is the same as the area sited for development under the Reduced Scale Alternative. The Project site is adjacent to but outside the AIA of SJC. The Project site does not fall within the 65 dBA CNEL noise contour (i.e., the lowest noise contour for aircraft noise presented) for SJC, and would thus not be exposed to aircraft noise above 65 dBA.[13] Therefore, people living and working at the Project site under this alternative would not be greatly affected by aircraft noise, and impacts from aircraft noise would be less than significant, similar to the Project. (LTS)

Cumulative Impacts. Cumulative construction noise for the Project would be cumulatively considerable because Project construction noise could exceed the City's exterior noise limits at sensitive land uses or result in a 10 dB or greater increase over the ambient noise level. In addition, future residences at the Patrick Henry Specific Plan site would also be affected by a substantial increase in noise from construction at the Project site. As noted above, this alternative would involve the same types of construction equipment and similar worst-case distances to noise sensitive land uses as the Project. Consequently, the Reduced Scale Alternative would also result in a cumulatively considerable noise contribution to the cumulative impact. Mitigation Measure NOI-1.1 would reduce construction noise levels by incorporating practices to minimize noise, but the noise controls may not reduce noise enough in all instances to prevent a noise increase of 10 dB or more relative to ambient noise levels or reduce nighttime construction noise to a level that would be in compliance with City Code noise limits. This alternative's contribution to this impact is significant and unavoidable, same as the Project. (SU/M)

Construction of the Project was found to result in significant and unavoidable cumulative vibration impacts during construction. The same conclusion would apply to this alternative because the same types of equipment and worst-case distances would also apply. The Patrick Henry Specific Plan would construct new residential units, which would result in vibration-sensitive land uses being located approximately 100 feet from the Project site. At 100 feet, pile driving would generate substantial vibration, affecting future occupants of the Patrick Henry Specific Plan site. Mitigation Measure NOI-3.1 would be implemented to minimize this impact, but it cannot be determined whether vibration levels would be reduced to below the strongly perceptible threshold in all circumstances at the cumulative receptors. The alternative's contribution to this impact would be significant and unavoidable, the same as the Project. (SU/M)

As discussed in Section 3.6, *Noise*, cumulative impacts related to non-traffic operational noise would be less than significant. Non-traffic operational noise impacts would require implementation of Mitigation Measures NOI-2.1 to be less than significant. These cumulative impacts would be the same under the Reduced Scale Alternative because the same general type of noise sources would be present (e.g., HVAC fans, chillers, emergency generators, etc.) and result in similar noise levels. Future residences at the Patrick Henry Specific Plan site would also be affected by operational noise. The approximate distance to onsite and offsite sensitive land uses, as noted above, would be similar to the Project. (LTS/M)

[13] Windus, Walter B. 2011. *Comprehensive Land Use Plan for San José International Airport*. Santa Clara County Airport Land Use Commission. Adopted: May 25, 2011. Amended: November 16, 2016.

With regard to traffic noise effects, future regional growth in the Project vicinity would result in increases in traffic that would cumulatively increase traffic noise. As evaluated in Table 3.3-14, the increase in traffic noise for the cumulative conditions relative to existing conditions would be a maximum of 9.3 dB, which would be a noticeable and thus significant increase in noise. However, Table 3.3-14 also presents the Project-only contribution to cumulative noise impacts (i.e., relative to future conditions without the Project), and the Project contribution would be 2.2 dB, which would not be noticeable. Thus, because the Reduced Scale Alternative would have approximately 30 percent fewer vehicle trips in the cumulative conditions, the contribution from this alternative would be less than 2.2 dB and thus not noticeable. Therefore, the Reduced Scale Alternative's contribution to the cumulative traffic noise impact would be less than significant (i.e., slightly less than but similar to that of the Project). (LTS)

5.6.3.7 Cultural Resources

Topics Found to Have No Impact. As with the Project, the Reduced Scale Alternative would not cause a substantial adverse change in the significance of a historic structure because none of the existing buildings onsite are considered historic. Therefore, the Reduced Scale Alternative would result in no impact on historic structures. (NI)

Impacts on Archaeological Resources and Human Remains. Similar to the Project, archaeological deposits and human remains would not be encountered during operations under the Reduced Scale Alternative. However, the presence of prehistoric archaeological sites in the Project vicinity suggests that there could be additional, previously undiscovered prehistoric archaeological resources or human remains in the Project area that could be affected by ground-disturbing activities during construction. Accordingly, because ground-disturbing activities during construction of the Reduced Scale Alternative would be the same as under the Project, this alternative has the potential to encounter previously undiscovered archaeological resources or human remains. As with the Project, implementation of Mitigation Measures CUL-2.1, CUL-2.2, and CUL-2.3 would reduce this impact to a less-than-significant level. (LTS/M)

Cumulative Impacts. All significant archaeological resources and human remains are unique and nonrenewable resources. Therefore, the cumulative effects of all development on these resources are considered significant. However, compliance with Mitigation Measures CUL-2.1, CUL-2.2, and CUL-2.3 would lessen the Reduced Scale Alternative's contribution to the cumulative impact to less than cumulatively considerable and would reduce the significant cumulative impacts associated with the loss of archaeological and the disturbance of human remains to a less-than-significant level, similar to the Project. (LTS/M)

5.6.3.8 Biological Resources

Topics Found to Have No Impact. As with the Project, the Reduced Scale Alternative would not result in the direct loss of or damage to special-status plants or fish, the loss or degradation of riparian habitat or sensitive natural communities, interference with the movement of native resident or migratory fish species, interference with wildlife corridors, or conflict with a HCP or NCCP. The Reduced Scale Alternative would result in no impact related to these issues, similar to the Project, for the same reasons as described for the Project. (NI)

Impacts on Special-Status Species. Similar to the Project, operation of the Reduced Scale Alternative would not result in significant impacts because birds and bats would become acclimated to operational noise. However, construction of the Reduced Scale Alternative could result in impacts on special-status

nesting birds and bat species. If the Reduced Scale Alternative is implemented during the nesting season for birds (February 1 through August 31), construction activities could result in the direct mortality of adult or young birds, the destruction of active nests, and/or disturbance of nesting adults, causing nest abandonment and/or loss of reproductive effort, similar to the Project. In addition, as with the Project, construction activities could result in the direct mortality of roosting bats, including pallid bat, during tree and building removal. The Reduced Scale Alternative would result in similar tree removal and building demolition as the Project. Therefore, as with the Project, impacts on special status species during construction would be less than significant with implementation Mitigation Measure BIO-1.1 and BIO-4.1. (LTS/M)

Impacts on State or Federally Protected Wetlands. Similar to the Project, operation of the Reduced Scale Alternative would not result in significant impacts on State- or federally protected wetlands. During construction, the Reduced Scale Alternative would result in the same amount of demolition as the Project, but would reduce the amount of development and floor area. There are no State or federally protected wetlands, as defined by Section 404 of the CWA, on the Project site. Although no direct impacts would occur, development on the Project site has the potential to cause indirect impacts on nearby wetlands or water quality within those wetlands (e.g., Calabazas Creek), given the site's runoff patterns. Runoff under this alternative would very likely be slightly less than the Project since less floor area and smaller footprints would be constructed, but runoff is still expected to occur. In order to meet the federal, state, and local permit and policy requirements, projects must incorporate impervious surfaces, tree planters, grassy swales, bioretention and/or detention basins, and other features, which would be included as part of the Reduced Scale Alternative site plans. Compliance with the SWPPP during construction, as well as post-construction measures and design features required by the MRP, would reduce the potential impact from the Reduced Scale Alternative on Calabazas Creek to a less-than significant level. Impacts would be similar to those of the Project but with a slightly lesser degree of severity. (LTS)

Impede Use of Native Wildlife Nursery Sites or Interfere with Movement of Native Migratory Wildlife Species. Currently, there are approximately 350 trees on the Project site and four buildings; for the purposes of this analysis, it is assumed that, like the Project, all of the existing features would be removed under the Reduced Scale Alternative. Impacts on native migratory birds, including tree-nesting raptors, could involve direct impacts from the removal of nesting trees or shrubs, or other nesting substrate (e.g., buildings), as well as indirect impacts from increases in noise and human activity near nesting habitat during construction and operation. Construction and operational activities would be less intense under the Reduced Scale Alternative than the Project due to a decrease in development. Nonetheless, similar to the Project, Mitigation Measure BIO-4.1 would be required in order to protect nesting birds. Implementation of this mitigation measure would result in less-than-significant impacts.

No bird species are expected to occur in large numbers on or immediately adjacent to the Project site. In addition, it is not expected that large numbers of migratory birds would use the Project site as an important flight path and be subject to a high risk of collision with proposed buildings during operation. Because of the overall low level of abundance with respect to birds on and immediately adjacent to the Project site, the frequency of bird collisions with buildings is expected to be low. While it is expected that the proposed buildings under the Reduced Scale Alternative would be slightly lower in height than under than the Project, the area of a building that poses the greatest risk for avian collisions is the lower portion because the majority of daily routine activities (e.g., foraging, roosting, nesting) occur relatively close to the ground. Therefore, although building heights would not be as tall, bird collisions could occur at a similar rate as under the Project. Although bird collisions cannot be completely avoided, the Project Sponsor would incorporate the City's standard condition of approval for bird safety into the final design of the Reduced Scale Alternative buildings to reduce significant impacts related to bird collisions. As with

the Project, implementation of Mitigation Measure BIO-4.2 would reduce impacts due to bird collisions during operation to less than significant, resulting in impacts similar to those of to the Project. (LTS/M)

Conflicts with Local Policies or Ordinances Protecting Biological Resources. Operation of the Reduced Scale Alternative would not result in conflicts with any local policies or ordinances protecting biological resources. Construction of the Reduced Scale Alternative would result in the removal of trees, similar to the Project. Per City Code Chapter 12.35, all removed suitable trees must be replaced at a ratio of 2:1 for 24-inch box trees or 4:1 for 15-gallon box trees. Dead trees are required to be replaced at a ratio of 1:1. Similar to the Project, the Reduced Scale Alternative would be required to adhere to this local policy. Therefore, the alternative would result in less-than-significant impacts related to conflicts with policies or ordinance protecting biological resources, similar to the Project. (LTS)

Cumulative Impacts. As discussed in Section 3.8, *Biological Resources*, cumulative impacts with respect to biological resources would be less than significant with implementation of Mitigation Measures BIO-1.1, BIO-4.1, and BIO-4.2. This alternative is conservatively assumed to involve the same amount of tree removal, the same amount of building demolition, and less building footprint impacts compared to the Project. Therefore, impacts would be less than cumulatively considerable with mitigation, similar to the Project. (LTS/M)

5.6.3.9 Geology and Soils

Topics Found to Have No Impact. Similar to the Project, the Reduced Scale Alternative would not include septic tanks/alternative wastewater disposal systems and would not be susceptible to landslides and would result in no impacts related to these topics. (NI)

Fault Rupture, Seismic Hazards, Erosion, and Expansive Soils. Construction and operation of the Reduced Scale Alternative would be subject to the same seismic and soil conditions as the Project as they would be located on the same site, and would be required to comply with existing regulations that address seismic hazards, expansive soils, and erosion. Therefore, similar to the Project, the Reduced Scale Alternative would result in less-than-significant impacts related to surface fault rupture, ground shaking, liquefaction, lateral spreading, soil erosion and loss of topsoil, and expansive soils for the same reasons described for the Project. (LTS)

Unstable Soil. Construction of the Reduced Scale Alternative would include a similar amount of excavation and dewatering activities and placement of fill materials on the Project site as the Project because this alternative would include the same below-grade excavations for parking garages. Thus, this would result in significant construction impacts related to collapse, subsidence, and settlement of unstable soil similar to those of the Project and for the same reasons described for the Project. Implementation of Mitigation Measure GEO-3.1 would reduce these impacts to less than significant with mitigation for the same reasons described for the Project. Operation of the Reduced Scale Alternative would not include the placement of fill material or involve excavation/dewatering; therefore, it would not contribute to collapse, subsidence, or settlement of unstable soil. (LTS/M)

Paleontological Resources. The Reduced Scale Alternative would be located on the same site as the Project and include similar below-grade excavations for the parking garages. Thus, this alternative would be located in areas that are underlain by geologic units that have yielded scientifically important fossil finds, including vertebrate remains. The Reduced Scale Alternative would have a significant impact on significant paleontological resources. Implementation of Mitigation Measure GEO-6.1 would ensure that the significant impacts related to paleontological resources would be reduced to a less-than-significant level, similar to the Project. (LTS/M)

Cumulative Impacts. As discussed in Section 3.9, *Geology and Soils*, cumulative construction impacts with respect to geology and soils and paleontological resources would be less than significant with implementation of Mitigation Measures GEO-3.1 and GEO-6.1. This alternative would result in impacts similar to those of the Project because similar below-grade parking garage would be developed; therefore, excavation could still result in impacts related to unstable soils and paleontological resources. As discussed in Section 3.9, *Geology and Soils*, cumulative operational impacts with respect to geology and soils and paleontological resources would not occur. Therefore, impacts would be less than cumulatively considerable with mitigation, similar to the Project. (LTS/M)

5.6.3.10 Hydrology and Water Quality

Surface Water Quality. The Reduced Scale Alternative would be required to comply with existing regulations that protect surface water quality during construction and operation and, therefore, would result in less-than-significant impacts related to surface water quality for the same reasons described for the Project. (LTS)

Groundwater Quality and Supply. The Reduced Scale Alternative would include excavation dewatering and redevelopment in areas where contaminated soil or groundwater and water wells may be present, which would result in significant impacts on groundwater quality, supply, and management similar to those of the Project for the same reasons described for the Project. Implementation of Mitigation Measures GEO-3.1 HAZ-2.1, WQ-1.1, and WQ-1.2 would reduce these impacts on groundwater quality during construction and operation as well as groundwater supply and management during construction to less than significant with mitigation for the same reasons described for the Project, resulting in similar impacts.

The Reduced Scale Alternative would have fewer occupants on the Project site, and therefore the increased demand on the city's municipal water supply would be less than the Project; however, the Reduced Scale Alternative would still increase the demand on the city's municipal water and therefore would result in similar significant operational impacts as the Project related to groundwater supply and management for the same reasons described for the Project. Implementation of Mitigation Measures WQ-2.1 would reduce these operational impacts to less than significant with mitigation for the same reasons described for the Project, resulting in similar but slightly less impacts. (LTS/M)

Drainage Patterns. Construction and operation of the Reduced Scale Alternative would alter drainage patterns on the Project site and would result in less-than-significant impacts related to erosion and sedimentation for the same reasons described for the Project. The Reduced Scale Alternative would increase groundwater recharge and decrease stormwater runoff from the Project site by increasing the amount of landscaped area on the Project site and would therefore create a beneficial effect on groundwater recharge similar to the Project. Altering drainage patterns on the Project site could result in similar significant impacts as the Project related to flooding and exceeding the capacity of storm drain systems for the same reasons described for the Project. Implementation of Mitigation Measures WQ-3.1 and WQ-3.2 would reduce impacts related to flooding and exceeding the capacity of storm drain systems to less than significant with mitigation for the same reasons described for the Project, resulting in similar impacts. (LTS/M)

Release of Pollutants Due to Inundation. The Reduced Scale Alternative would be subject to the same risk of inundation during construction and operation as the Project. Furthermore, it would result in less-than-significant impacts related to a release of pollutants in the event of a tsunami, seiche, or dam failure for the same reasons described for the Project. The Reduced Scale Alternative would include construction

within flood hazard areas and could result in a similar significant impact as the Project related to the release of pollutants due to inundation by flooding for the same reasons described for the Project. Implementation of Mitigation Measures WQ-3.2 would reduce this impact to less than significant with mitigation for the same reasons described for the Project, resulting in similar impacts. (LTS/M)

Conflict with a Water Quality Control Plan or Groundwater Management Plan. The Reduced Scale Alternative could affect groundwater quality, supply, and management during construction and operation, as discussed above. Therefore, it could result in a significant impact similar to that of the Project related to conflicting with the Basin Plan and Groundwater Management Plan for the Santa Clara and Llagas Subbasins. Implementation of Mitigation Measures WQ-1.1, WQ-1.2, GEO-3.1, and HAZ-2.1 would reduce this impact to less than significant with mitigation for the same reasons described for the Project, resulting in similar impacts. (LTS/M)

Cumulative Impacts. As discussed in Section 3.10, *Hydrology and Water Quality*, cumulative impacts with respect to hydrology and water quality would be less than significant with the implementation of Mitigation Measures WQ-1.1, WQ-1.2, GEO-3.1, and HAZ-2.1. This alternative would result in construction and operational impacts that would be similar to those of the Project because the risks to surface waters and groundwater would be similar, as described above. Therefore, impacts would be less than cumulatively considerable with mitigation, similar to the Project. (LTS/M)

5.6.3.11 Hazards and Hazardous Materials

Topics Found to Have No Impact. Similar to the Project, the Reduced Scale Alternative would not be located within 0.25-mile of schools or on hazardous materials release site listed pursuant to a Government Code Section 65962.5, and would not be susceptible to wildfire. The Reduced Scale Alternative would result in no impacts related to these topics. (NI)

Aviation Hazards, Emergency Response and Evacuation, and Routine Transport, Use, or Disposal of Hazardous Materials. Construction and operation of the Reduced Scale Alternative would be required to comply with existing regulations and policies that address aviation hazards, emergency response and evacuation, and hazardous materials management and would therefore result in less-than-significant impacts related to aviation hazards, emergency response and evacuation, and the routine transport, use, or disposal of hazardous materials for the same reasons described for the Project, resulting in similar impacts. (LTS)

Accidental Release of Hazardous Materials. Construction of the Reduced Scale Alternative would include potential disturbance of contaminated soil and groundwater and redevelopment above areas of potential soil and groundwater contamination, which would result in significant construction and operational impacts related to the accidental release of hazardous materials similar to those of the Project for the same reasons described for the Project. Implementation of Mitigation Measure HAZ-2.1 would reduce these impacts to less than significant with mitigation for the same reasons described for the Project, resulting in similar impacts. (LTS/M)

Cumulative Impacts. As discussed in Section 3.11, *Hazards and Hazardous Materials*, cumulative impacts with respect to aviation hazards, emergency response and evacuation, and hazardous materials management would be less than significant. Impacts related to the accidental release of hazardous materials would be less than significant with the implementation of Mitigation Measure HAZ-2.1. This alternative would result in construction and operational impacts that would be similar to those of the Project because the alternative would be located on the same site as the Project. Therefore, impacts would be less than cumulatively considerable with mitigation, similar to the Project. (LTS or LTS/M)

5.6.3.12 Population and Housing

The Reduced Scale Alternative would result in approximately 2,709 residents on the Project site. Because 6,667 employees were assumed in the General Plan for the Project site, the Reduced Scale Alternative would generate fewer employees than planned for, resulting in 1,615 fewer net new employees. Compared to the Project, which would generate 544 net new employees, this is a considerable decrease.

Topics Found to Have No Impact. Like the Project, the Reduced Scale Alternative would demolish the existing buildings at the Project site. No existing residential units would be demolished. Therefore, as with the Project, the Reduced Scale Alternative would not displace housing or people. (NI)

Population Growth. Construction of the Reduced Scale Alternative would temporarily increase construction employment in the city, although to a lesser extent than the Project, due to a reduced construction period. The demand for construction employment would very likely be met within the existing and future labor market in the city and the county. Therefore, the population within the city or county as a result of workers relocating is not anticipated to increase substantially during Reduced Scale Alternative construction, resulting in a less-than-significant impact related to population growth. Although the Reduced Scale Alternative would result in a direct population increase during operation due to the approximately 2,709 onsite residents, the increase would be less than that of the Project, which would have 3,870 onsite residents. Therefore, the Reduced Scale Alternative would result in less onsite population growth than the Project.

The increase in employment at the Project site during operation would result in an increased housing demand and an influx of new residents to the city and other jurisdictions in the region. It may even result in increased housing demand outside the Bay Area. However, as discussed above, 6,667 employees were planned for at the Project site; the Reduced Scale Alternative would generate 5,072 employees, resulting in 1,615 fewer new net employees, less than the 544 net new employees resulting from the Project. Therefore, the Reduced Scale Alternative would result in a less-than-significant impact related to population growth, less than that of the Project. (LTS)

Cumulative Impacts. The Reduced Scale Alternative, in combination with other projected growth in the city, would not increase offsite population and housing in the city because the growth generated by the alternative would be lower than what was planned for at the Project site. Therefore, the Reduced Scale Alternative's contribution to a cumulative impact would be less than significant, similar to but slightly less than that of the Project. (LTS)

5.6.3.13 Public Services and Recreation

Impact on Fire Services and Facilities. Construction of the Reduced Scale Alternative would result in onsite construction workers but to a lesser extent than the Project. However, construction workers are not expected to put an additional strain on fire protection services that would require the rehabilitation of existing facilities or the construction of new facilities. Therefore, similar to the Project, impacts related to fire protection during construction would be less than significant. (LTS)

Operation of the Reduced Scale Alternative would result in new employees and residents on the Project site. New employees and residents could result in an increase in the number of calls for fire protection and emergency services. However, the SCFD does not use a population-based staffing standard but, rather, bases its staffing on the ability to send trained and equipped personnel within response times. Once operational in 2025, it is expected that Fire Station 10 would provide service at the Project site in the event of a fire or medical emergency, thereby reducing response times for the area. The Santa Clara

Municipal Fire and Environmental Code incorporates the 2019 International Fire Code. All new construction under the Reduced Scale Alternative would need to be in conformance with the codes, which require new construction to facilitate emergency access and include fire protection systems such as alarm systems and sprinklers. This would reduce the risk of fire in new office and residential buildings under the Reduced Scale Alternative. Therefore, similar to the Project, the Reduced Scale Alternative would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered fire protection facilities in order to maintain acceptable service ratios, response times, or other performance objectives. As such, impacts related to fire protection under the Reduced Scale Alternative would be less than significant, similar to the Project. (LTS)

Impact on Polices Services and Facilities. Construction workers under the Reduced Scale Alternative are not expected to increase the SCPD's service population in a way that would necessitate the expansion of existing or construction of new SCPD facilities. Therefore, similar to the Project, impacts related to police protection during construction would be less than significant. (LTS)

During operation, the Reduced Scale Alternative could affect the SCPD by intensifying site activity; adding new employees, residents, and visitors; increasing square footage; and increasing traffic incidents. Adding to the service population would lead to an overall increase in service calls to the SCPD. In addition, the need for additional officers and staff due to implementation of the Reduced Scale Alternative could result in the need for additional equipment (e.g., radios, vehicles, computers) and a redesign of existing SCPD facilities to resolve capacity issues. Although additional SCPD staff may be required, the Reduced Scale Alternative, on its own, would not trigger the need for the construction of a new police facility or the expansion of the existing one. Any additional SCPD services required to meet the needs of the Reduced Scale Alternative would be accommodated within existing facilities. In addition, the SCPD participates in a mutual-aid agreement with the other law enforcement jurisdictions in Santa Clara County, which could provide services to the Project site, as needed. Therefore, the Reduced Scale Alternative, similar to the Project, would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered police facilities in order to maintain acceptable service ratios, response times, or other performance objectives. As such, impacts related to police protection would be less than significant, similar to the Project. (LTS)

Impact on School Facilities. Construction workers under the Reduced Scale Alternative would not be expected to trigger a need for new schools or require expansion or rehabilitation of existing facilities. Therefore, similar to the Project, impacts related to schools during construction would be less than significant. (LTS)

During operation, the Reduced Scale Alternative would generate approximately 2,709 onsite residents and, therefore, would have a direct impact on schools. In addition, new onsite employees would result in new residents throughout the city, which would also need to be served by the SCUSD. School enrollment in the city has been consistently declining over the last 7 years and is projected to continue to decline over the next decade. Capacity for the additional elementary school and middle school students can currently be accommodated in Kathryn Hughes Elementary and Huerta Middle School. High school capacity throughout the district in general is affected; however, Kathleen MacDonald High, which currently serves only the ninth grade, will be adding a new grade each year as the current student class progresses. Therefore, by the time the Reduced Scale Alternative is operational, adequate space would be available for high school students generated as a result of the new onsite residents and employment. In addition, the Reduced Scale Alternative would be subject to SB 50 School Impact Fees. Section 65996 of the State Government Code states that the payment of school impact fees established by SB 50 is deemed to constitute full and complete mitigation for school impacts from development that may be required from

a developer by any State or local agency. Although the payment of the school impact fee by the Project Sponsor could contribute toward the construction or expansion of schools, any actual construction or expansion of school facilities would not be a direct result of the alternative and would be required to undergo a separate CEQA review process. Therefore, the Reduced Scale Alternative would not trigger the need for the expansion or construction of new schools, resulting in a less-than-significant impact, similar to the Project. (LTS)

Impact on Parks and Recreation Facilities. Implementation of this alternative could contribute to an increase in demand for parkland because it would add new residents in the city. The increased population associated with the alternative could contribute to overuse of existing parks near the Project site and lead to physical deterioration of park facilities and overcrowding. The alternative would be required to dedicate public parkland and/or pay a fee in lieu of parkland dedication to help offset the impact on existing parkland and recreational facilities associated with demand from new residents. This would result in a less-than-significant impact on park and recreational land. (LTS)

Due to the onsite employment and residential uses, the Reduced Scale Alternative would increase the population in the area during operation and, therefore, increase the demand for local neighborhood and community parks and recreational space. The Reduced Scale Alternative is expected to include open space, including dedicated parkland and private active recreational amenity space, but 30 percent less than the Project. Therefore, the Reduced Scale Alternative would provide the required amount of dedicated parkland and private active recreational amenity space for the employees and residents but would not increase the demand for recreational space. Because the Reduced Scale Alternative would provide programmed recreational space that would meet the demands of employees and residents, it would not increase demand on existing parks and recreational spaces. Therefore, very little physical deterioration would occur at other park sites as a result of the Reduced Scale Alternative. The Reduced Scale Alternative would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered park facilities in order to maintain acceptable service ratios or other performance objectives. As such, impacts related to parks would be less than significant, similar to the Project. (LTS)

Impact on Library Facilities. Under this alternative, onsite construction workers would most likely be drawn from the existing and future labor market in the city and the county. Therefore, as with the Project, construction of the Reduced Scale Alternative would not put additional strain on library services that would require the rehabilitation of existing or the construction of new library facilities, resulting in less-than-significant impacts. (LTS) However, the addition of new employees and residents on the Project site during operation would increase the population of library users. Regardless, based on ABAG projections and existing library space, population increases within the city by 2040 would not result in an exceedance of the suggested minimum of 0.3 square feet of library space per capita. Therefore, the Reduced Scale Alternative would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered library facilities in order to maintain acceptable service ratios or other performance objectives. Similar to the Project, the Reduced Scale Alternative would result in a less-than-significant impact related to libraries. (LTS)

Cumulative Impacts. Cumulative development in the city would result in increased demand for fire services, police services, school facilities, parks, recreational facilities, and library facilities to accommodate growth. As with the Project, cumulative impacts on public services would be significant if the firefighter and police service response time is degraded, and new school, park, and library facilities are not constructed to accommodate this growth. The Reduced Scale Alternative would add new employees and residents to the Project site. As with the Project, although additional firefighters and police

could be needed for the Reduced Scale Alternative to maintain response times, staffing increases could be accommodated within existing facilities or within the new Fire Station 10. With provision of the City's school impact fees, as well as a requirement that calls for the alternative to dedicate parkland and/or pay a fee in lieu of parkland dedication to help offset the impact on existing parkland and recreational facilities associated with demand from new residents, the cumulative impact on parks and recreation as well as schools would be less than significant. Therefore, as with the Project, the Reduced Scale Alternative's cumulative impacts on public service providers would be less than cumulatively considerable. (LTS)

5.6.3.14 Tribal Cultural Resources

Impacts on Tribal Cultural Resources. Similar to the Project, there would be no impacts on tribal cultural resources during operation of the Reduced Scale Alternative. However, construction of the Reduced Scale Alternative could result in impacts during ground-disturbing activities. The NWIC records search and literature review indicated no previously recorded cultural resources within or adjacent to the Project site. This includes tribal cultural resources listed or eligible for listing in the CRHR or a local register of historical resources. Similar to the Project, under the Reduced Scale Alternative, archaeological deposits that qualify as tribal cultural resources could be encountered during excavation because similar excavation for the below-grade parking garages would be required under this alternative. Such resources would be eligible for listing in the CRHR or a local register of historical resources, or the lead agency, in its discretion and supported by substantial evidence, could determine the resources to be significant pursuant to the criteria set forth in subdivision (c) of PRC Section 5024.1. Thus, significant impacts related to tribal cultural resources could result from construction of the Reduced Scale Alternative. However, similar to the Project, implementation of the Mitigation Measures CUL-2.1, CUL-2.2, and CUL-2.3 would reduce impacts on tribal cultural resources to less than significant. (LTS/M)

Cumulative Impacts. Cumulative development in the city would result in demolition or alteration of non-archaeological and archaeological resources that may qualify as tribal cultural resources under CEQA. Because the Project site is situated in an archeologically sensitive area, the possibility exists of encountering unknown tribal cultural resources during ground-disturbing activities associated with construction of the Reduced Scale Alternative. Therefore, the Reduced Scale Alternative, similar to the Project, could contribute to a cumulative loss of tribal cultural resources. However, implementation of Mitigation Measures CUL-2.1, CUL-2.2, and CUL-2.3, which require an archaeological monitoring plan, cultural resources sensitivity training for all construction crews participating in ground-disturbing activities, and stopping work if archaeological deposits are encountered during ground-disturbing activities, would reduce impacts to less than significant, similar to the Project. (LTS/M)

5.6.3.15 Utilities and Service Systems

Topics Found to Have No Impact. Similar to the Project, the Reduced Scale Alternative would not result in the generation of unique types of solid waste that would conflict with existing regulations regarding solid waste disposal. Therefore, there would be no impact related to complying with applicable federal, State, and local statutes and regulations, the same as the Project. (NI)

Utility Relocation, Construction, or Expansion. Similar to the Project, the Reduced Scale Alternative would upgrade all utilities to meet the demand of the alternative's increase in the number of onsite residents and employees compared to existing conditions. The construction of utility infrastructure improvements would have the potential to cause significant adverse environmental effects, such as fugitive dust generation, noise generation, sedimentation, and erosion. The proposed utility expansions are a part of the Project description for this alternative, and the potential impacts that would result from

construction of these facilities are evaluated throughout this chapter. In addition, implementation of Mitigation Measures WQ-3.1 and WQ-3.2 would ensure that potential construction impacts of the Project related to exceeding the capacity of existing or proposed stormwater drainage systems would be less than significant with mitigation. Specifically, the mitigation measures would require a hydraulic study to be prepared to demonstrate that existing and proposed stormwater drainage systems would be capable of conveying 10-year peak runoff from the Project site and ensure that such flows during a 100-year flood event would remain within public roadway limits and would not extend into private property. Furthermore, modifications to the Project design would be implemented, if necessary, and a construction-period stormwater drainage control plan would be implemented. Therefore, similar to the Project, the Reduced Scale Alternative would not require or result in the relocation or construction of new or expanded utility infrastructure, beyond the facilities already included in the Project description for this alternative and evaluated in this chapter, the construction or relocation of which could cause significant environmental effects. This impact would be less than significant with mitigation. (LTS/M)

Water Supply. Construction activities under the Reduced Scale Alternative would be served by existing water systems and infrastructure. Because there is adequate water service available at the Project site, construction activities that would require water, such as dust suppression and dewatering, would be met through the metered use of water conveyed by water trucks and tanks. Furthermore, because of the need for fewer construction activities under this alternative compared to the Project, construction of the Reduced Scale Alternative would use less water. Therefore, the impact on water supplies during construction would be less than significant, similar to the Project but to a lesser extent. (LTS)

During operation, the Project's total water demand would be 646.4 acre-feet per year. Given the Reduced Scale Alternative's 30 percent reduction in development across the Project site, water demand associated with this alternative would be approximately 30 percent less than that under the Project (i.e., 452.5 acre-feet per year). When taking into account the water demand of other approved development as well as the water demand of the Reduced Scale Alternative, there would be an adequate water supply under the normal-year, single dry-year, and five consecutive dry-year scenarios, as with the Project. Therefore, as with the Project, implementation of the Reduced Scale Alternative would have a less-than-significant impact on water supplies. (LTS)

Wastewater Treatment Capacity. Construction activities associated with the Reduced Scale Alternative, which would be less than construction activities under the Project, would be served by the existing sewer system and infrastructure. Because portable restrooms would be temporarily installed onsite, construction is not anticipated to result in substantially elevated wastewater levels in the local sanitary sewer system. In addition, dewatering discharge rates would be less than peak storm flows and within system capacity. Therefore, similar to the Project, this alternative would result in a less-than-significant impact on wastewater treatment providers during construction. (LTS)

During operation, the Project's estimated BWF would be 51,533 gpd by 2035. The Reduced Scale Alternative's 30 percent reduction in development across the Project site would reduce wastewater flows associated with this alternative by approximately 30 percent (i.e., reduced to 36,073 gpd). Therefore, as with the Project, implementation of the Reduced Scale Alternative would also require sewer modifications (e.g., the use of 12-inch-diameter pipes) to maintain consistent sizing between existing upstream and downstream 12-inch segments. Impacts on wastewater facilities would be less than significant. (LTS)

Solid Waste Capacity. Demolition of onsite facilities under the Reduced Scale Alternative would generate the same amount of waste as the Project and would not constitute a substantial portion of the solid waste facilities' daily permitted capacity. Therefore, the solid waste facilities that would serve the Project site

during construction would be able to accommodate the construction waste generated by the Reduced Scale Alternative. (LTS)

The Project would generate approximately 6,235 tons per year of solid waste (without any diversion), or 2,182 tons per year with a 65 percent diversion rate. Given the Reduced Scale Alternative's 30 percent reduction in development across the Project site, solid waste generation associated with this alternative would be approximately 30 percent less than that under the Project (4,364 tons per year without diversions, or 1,527 tons per year with a 65 percent diversion rate). The amount of solid waste produced on the Project site would be small compared to the remaining daily permitted capacity at Newby Island Landfill. Therefore, similar to the Project, the Reduced Scale Alternative would be served by a landfill with adequate permitted capacity to accommodate its solid waste disposal needs. (LTS)

Cumulative Impacts. The Reduced Scale Alternative would result in the same utilities and service system impacts as the Project (or slightly fewer). Therefore, cumulative impacts under the Reduced Scale Alternative, including impacts related to utility relocation, water supply, wastewater treatment capacity, and solid waste capacity, would be less than cumulatively considerable. (LTS)

5.6.4 Reduced Office/Increased Housing Alternative

Under the Reduced Office/Increased Housing Alternative, the overall office square footage would be reduced and the overall number of housing units would increase. This would be accomplished by removing all 789,000 gsf of office/R&D space in Area C and replacing it with 800 multifamily housing units. The retail uses, amenities, open space, and substation would all remain the same in Area C as under the Project. All other land use and development assumptions in Areas A, B, and D would remain the same as under the Project.

5.6.4.1 Land Use

Topics Found to Have No Impact. As with the Project, the Reduced Office/Increased Housing Alternative would not physically disrupt or divide an established community, resulting in no impact. (NI)

Conflicts with Adopted City Land Use Plans and Policies Regarding the Jobs/Housing Balance. A goal of the City's General Plan policies is, in part, to reduce environmental impacts by promoting a balance in the jobs/housing ratio. The City's General Plan policies would facilitate this goal by promoting the construction of more housing in the relatively job-rich Silicon Valley, thereby helping to reduce long-distance commutes by employees to the Silicon Valley. Conflicts with the City's General Plan policies aimed at improving the jobs/housing balance in the city would not occur during construction of the Reduced Office/Increased Housing Alternative because no permanent jobs or residences would be added. The Reduced Office/Increased Housing Alternative would result in less office/R&D space (i.e., approximately 789,000 gsf less) than that assumed for the Project site as part of the Yahoo! Campus Planned Development Zoning and Development Agreement under the General Plan. In addition, the alternative would provide a total of 2,600 residential units. Therefore, employment growth associated with operation of the Reduced Office/Increased Housing Alternative would improve the jobs/housing balance in the city to a greater extent than the Project because fewer jobs would be created and more housing would be constructed.

Consistent with the overarching goals and policies of Plan Bay Area and the City's General Plan, the Reduced Office/Increased Housing Alternative would provide mixed-use development in proximity to transit and would be within walking distance of multiple VTA light rail stations as well as Great America Station, which is served by Amtrak's Capitol Corridor and Altamont Corridor Express. In addition, the

Reduced Office/Increased Housing Alternative would be largely consistent with surrounding uses, including Levi's Stadium, the Hilton Santa Clara Hotel, Convention Center, California's Great America Amusement Park, and the Patrick Henry Specific Plan adjacent to the site. Overall, given the alternative's adjacency to public transit and compatibility with surrounding uses, the alternative would be largely consistent with the transit-oriented development goals and policies outlined in Plan Bay Area and the City's General Plan.

Compared to the Project, the Reduced Office/Increased Housing Alternative would result in fewer employees and more housing (2,600 units compared to 1,800 units). This alternative would have a greater effect on the jobs/housing imbalance than the Project, and it would improve the jobs/housing ratio compared to what is expected to result from the current City General Plan projections in 2035 (2.15) and ABAG's projections in 2040 (2.99) without the alternative. The Reduced Office/Increased Housing Alternative would decrease the jobs/housing imbalance to 2.08 in 2035 (under the General Plan projections) and to 2.87 in 2040 (under ABAG projections). In comparison, the Project would result in a slightly higher imbalance of 2.11 in 2035 and 2.91 in 2040. Therefore, the Reduced Office/Increased Housing Alternative would result in greater improvement in the jobs/housing imbalance compared with the Project, and there would be no impact. (NI)

Consistent with Airport Land Use Plan. The ALUC CLUP outlines the types of land uses that are compatible in the vicinity of SJC. The determination of Project consistency with the CLUP considers issues such as general compatibility, safety, height, and noise. The Project site is adjacent to, but outside of, the AIA. Furthermore, the Project site is outside CLUP safety zones and noise contours. However, the Project site does fall within the maximum structure height contour range of 350 to 380 feet above ground level, per SJC's FAA Regulation Part 77, Surfaces Map. In accordance with the proposed General Plan and zoning amendments, the maximum heights of new buildings within the Project area would comply with the height regulations and restrictions established by FAA and CLUP criteria. Applicable maximum height requirements would vary across the Project area, up to a maximum of approximately 202 feet above finished grade, similar to the maximum building height under the Project. Compliance with FAA and CLUP regulations would ensure that the Reduced Office/Increased Housing Alternative would not introduce new buildings that would exceed applicable CLUP building height limits. Therefore, development of the Reduced Office/Increased Housing Alternative would be consistent with height clearances established in the CLUP. Given the Reduced Office/Increased Housing Alternative's consistency with CLUP policies regarding safety, heights, and noise, as well as FAA Regulation Part 77 notification requirements, this alternative would result in a less-than-significant land use impact with respect to CLUP policies, the same as the Project. (LTS)

Conflicts with Adopted City Land Use Plans and Policies Other than the Jobs/Housing Balance and Airport Land Use Plan. Similar to the Project, the Reduced Office/Increased Housing Alternative would not be consistent with the existing land use designation. Inconsistency with land use designations does not, by itself, constitute a significant environmental impact because the land use designations were not enacted to mitigate or lessen environmental effects as a primary objective. In order to accommodate high-intensity, urban-oriented development, a new General Plan land use classification (Urban Center Mixed Use) would be proposed within the Mixed-Use category for the Reduced Office/Increased Housing Alternative. The proposed General Plan amendment, including the land use classification, would meet the intent of the land use policies. Although the alternative would result in some inconsistencies with the General Plan land use policies, similar to the Project, the ultimate determinations of General Plan consistency can and will be made by City Council. A proposed project can be generally consistent with a general plan, even though the project may not promote every applicable goal and policy. Because of the general consistency with land use policies, any potential conflicts with the General Plan related to the new

land use classification under the Reduced Office/Increased Housing Alternative would be less than significant, similar to the Project. (LTS)

Cumulative Impacts. The Reduced Office/Increased Housing Alternative would introduce a project with fewer employees and more housing but the same amount of total floor area as the Project. Because the Reduced Office/Increased Housing Alternative would improve the city's overall jobs/housing balance, there would be no impact, and the Reduced Office/Increased Housing Alternative would not contribute to a cumulative impact. Similar to the Project, the Reduced Office/Increased Housing Alternative would be generally consistent with the applicable goals, policies and actions outlined in the CLUP and the City General Plan. Therefore, because of the alternative's general consistency with land use policies, the Reduced Office/Increased Housing Alternative would not contribute to a significant cumulative impact, and any conflicts with the General Plan and CLUP would be less than significant. (LTS)

5.6.4.2 Transportation

Adopted Plans, Ordinances, and Policies Regarding Roadways and Transit, Bicycle, and Pedestrian Facilities. Under the Reduced Office/Increased Housing Alternative, the overall office square footage would be reduced and the overall number of housing units would increase. This alternative would not conflict with applicable plans, ordinances, and policies that address the circulation system. Under this alternative, bicycle, pedestrian, and transit facilities are expected to be the same as under the Project; therefore, it would not result in impacts on bicycle, pedestrian, and transit facilities, and conflicts with adopted plans, ordinances, or policies would not result. Therefore, the Reduced Office/Increased Housing Alternative would result in a less-than-significant impact related to conflicts with adopted plans, ordinances, or policies addressing roadways and transit, bicycle, and pedestrian facilities, similar to the Project. (LTS)

Vehicle Miles Traveled. Under this alternative, ADT from new development within the Project site would decrease compared to the Project. Total VMT would most likely decrease compared to the Project (generally due to the decrease in number of commuting employees); however, the per capita or per employee VMT would tend to be similar to the Project due to the substantially similar residential and employment characteristics of this alternative. Similar to the Project, the Reduced Office/Increased Housing Alternative would qualify as a transit-supportive project and thus be assumed to have a less-than-significant impact on VMT. (LTS)

Hazards Due to Design Features or Incompatible Uses and Emergency Access. This alternative would include design features similar to those of the Project, which are intended to reduce conflicts between vehicles and alternative modes of travel; thus, less-than-significant impacts are expected from hazardous design features or incompatible uses. Emergency access to the Project site would be similar to access under the Project because site circulation would be the same, resulting in less-than-significant impacts. (LTS)

Construction Impacts.[14] The Reduced Office/Increased Housing Alternative would generate a similar number of truck trips during construction and about the same number of trips by construction workers as the Project. Heavy-duty truck trips are excluded from VMT consideration; therefore, the hauling of demolition debris would not affect VMT. Furthermore, the VMT generated by construction workers' trips to and from the site would be less than the VMT generated upon build-out of the development because

[14] Construction impacts are applicable to topics such as conflicts with adopted plans, ordinances, or policies addressing roadways and transit, bicycle, and pedestrian facilities; hazardous design features or incompatible uses; and emergency access.

there would be fewer construction trips than operational trips, resulting in a less-than-significant impact. Similar to the Project, the Reduced Office/Increase Housing Alternative would require preparation of a construction management plan that would be reviewed and approved by the Public Works Department, similar to requirements under Project Mitigation Measure TRA-1.1 (Construction Management Plan). This mitigation measure would ensure that the impacts related to consistency with adopted plans, ordinances, and policies addressing the circulation system, hazards due to a geometric design feature or incompatible uses, and inadequate emergency access would be less than significant with mitigation. (LTS/M)

Cumulative Impacts. The Reduced Office/Increased Housing Alternative combined with cumulative projects would not result in cumulative impacts for any transportation topic. Future development would be required to comply with existing regulations, including General Plan policies, zoning regulations, and City standards, that have been prepared to minimize impacts related to transportation and circulation, thereby avoiding hazards due to design features or incompatible uses or inadequate emergency access. In addition, as under the Project, the Code Compliant Alternative and cumulative development would require preparation of a construction management plan that would be reviewed and approved by the Public Works Department, similar to requirements under Project Mitigation Measure TRA-1.1 (Construction Management Plan). Therefore, the Reduced Office/Increased Housing Alternative in combination with cumulative projects would have a less-than-significant cumulative transportation impact with mitigation, similar to the Project. (LTS/M)

5.6.4.3 Air Quality

Conflict with or Obstruct Implementation of the Air Quality Plan. The Reduced Office/Increased Housing Alternative would reduce office development at the site by 26 percent and increase residential uses at the site by 44 percent. Overall, this alternative may result in more or less construction activity, but it is not currently known with certainty. The proposed development under the Reduced Office/Increased Housing Alternative would result in similar land uses as the Project, but the quantities of each would be different. The Project would be consistent with the BAAQMD's 2017 Clean Air Plan, because it would support the primary goals of the plan, include applicable control measures from the plan, and not disrupt any of the measures from the plan. Like the Project, the Reduced Office/Increased Housing Alternative would include energy saving features and sustainability measures, such as LEED certification, alternative transit options, landfill diversion techniques, and water-saving features. The Reduced Office/Increased Housing Alternative would not disrupt implementation of any of the measures for the plan. Thus, similar to the Project, the Reduced Office/Increased Housing Alternative would not conflict with the applicable regional air quality plans. Therefore, impacts are considered less than significant, the same as the Project. (LTS)

Construction Criteria Air Pollutant Emissions. The Reduced Office/Increased Housing Alternative would result in different quantities of office and residential space than the Project, which would result in a different construction duration. However, it is likely that the daily construction activities under the Reduced Office/Increased Housing Alternative would be similar to the Project. Therefore, daily construction emissions generated by the Reduced Office/Increased Housing Alternative would most likely be similar to those of the Project but with a potentially shorter or longer duration overall. Similar to the Project, development of the Reduced Office/Increased Housing Alternative would very likely exceed the BAAQMD's significance thresholds during construction. Because daily emissions would most likely be similar to those of the Project, similar mitigation would be required, such as Mitigation Measures AQ-2.1 and AQ-2.2.

The construction of the Project would generate daily exhaust emissions of NO_X in exceedance of the BAAQMD significance threshold, and thus the Reduced Office/Increased Housing Alternative would most likely generate similar levels of daily NO_X emissions in exceedance of the BAAQMD threshold. Similar to the Project, implementation of Mitigation Measures AQ-2.1 and AQ-2.2 would reduce the impact and would bring daily NO_X emissions below the BAAQMD threshold. Therefore, with implementation of Mitigation Measures AQ-2.1 and AQ-2.2, impacts would be less than significant with mitigation, similar to the Project. (LTS/M)

Operational Criteria Air Pollutant Emissions Similar to the Project, operation has the potential to create air quality impacts, primarily from mobile and area sources. Vehicular traffic would include daily trips from residents, employees, customers, delivery trucks, and waste management trucks. The Reduced Office/Increased Housing Alternative would result in 17 percent fewer vehicle trips than the Project and thus the operational air quality impacts would be reduced. However, as shown in Table 3.3-10, even with Mitigation Measures AQ-2.3 through AQ-2.6, the operational-only emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ would exceed the BAAQMD thresholds of significance. Assuming that emissions of ROG and NO_X would roughly decrease by 17 percent,[15] the Reduced Office/Increased Housing Alternative would likely still result in emissions of ROG and NO_X that would be above the thresholds of significance, because of the magnitude of the threshold exceedances. Emissions of PM_{10} and $PM_{2.5}$ for the Project would be roughly 20 percent above the threshold; thus, it is possible that the Reduced Office/Increased Housing Alternative would result in emissions that would be closer to the PM_{10} and $PM_{2.5}$ thresholds but most likely would not be below.

With respect to construction and operations overlap, as shown in Table 3.3-11, the Project would result in emissions of ROG, NO_X, and PM_{10} that would exceed BAAQMD thresholds. Thus, if construction and operations were to overlap for the Reduced Office/Increased Housing Alternative, it is likely that emissions would also exceed the thresholds during the period of overlap.

Although this alternative's criteria-pollutant emissions would be less than those of the Project, they would still be significant. Similar to the Project, Mitigation Measures AQ-2.3 through AQ-2.6 would reduce the impact but not to below the BAAQMD thresholds. Operational emissions would be significant and unavoidable, resulting in a slightly lower impact than the Project. (SU/M)

Exposure of Sensitive Receptors to Carbon Monoxide Hot-spots. Traffic generated by the Project would have the potential to create CO hot spots at nearby roadways and intersections. However, because the Reduced Office/Increased Housing Alternative would generate less traffic than the Project, the CO concentrations at potential hot-spots would be less than what is anticipated for the Project. As evaluated in Table 3.3-13, worst-case CO concentrations from Project implementation are well below the CAAQS and NAAQS. Thus, CO concentrations with implementation of the Reduced Office/Increased Housing Alternative are not expected to contribute to any new localized violations of the 1-hour or 8-hour ambient air quality standards, resulting in less-than-significant impacts, which is reduced compared to the Project. (LTS)

Construction and Operational TAC Emissions. Diesel-fueled engines, which generate $PM_{2.5}$ and DPM, would be used during construction of the Reduced Office/Increased Housing Alternative, similar to the Project. In addition, during operations, the same types of $PM_{2.5}$ and DPM sources would be present but to

[15] The actual decrease in emissions would be less than 17 percent because there are non-mobile sources of emissions as well.

a lesser degree. For example, there would be approximately 17 percent fewer vehicle trips, and, most likely, fewer emergency generators.[16]

Multiple sensitive receptors are located within 1,000 feet of the Project site. In addition, new receptors would live and work at the Project area while subsequent phases of construction are on-going. Construction of the Reduced Office/Increased Housing Alternative may result in a shorter construction duration, but that is not known for certain. If that were the case, this alternative would reduce the duration of exposure compared to the Project. As shown in Table 3.3-14, for construction-only impacts, the Project would not cause any significant health risks or $PM_{2.5}$ concentrations; thus, it is likely that the Reduced Office/Increased Housing Alternative would not result in significant health-related impacts during the construction-only period. However, for Project operations and construction and operations overlap, there would be a significant cancer risk in one scenario and a significant $PM_{2.5}$ impact in six scenarios.

The significant cancer risk for the Project would occur at onsite receptors during the period for the construction and operations overlap. For the Reduced Office/Increased Housing Alternative, the cancer risk may be less than the risk from the Project because the construction period may be shorter and there would be fewer vehicles and emergency generators during operation. However, there is uncertainty with respect to the duration of the construction period. It is conservatively assumed that the construction period for this alternative would be the same as the Project's construction period. Thus, health risks are conservatively assumed to be the same as the health risks from the Project and above the threshold.

The significant $PM_{2.5}$ concentrations for the Project would occur at offsite and onsite receptors and would cause impacts that are much greater than the BAAQMD threshold. At some receptors, the $PM_{2.5}$ concentration would be 10 times the threshold; as such, even with reduced vehicle traffic and emergency generators, the Reduced Office/Increased Housing Alternative would result in $PM_{2.5}$ concentrations that are above the BAAQMD threshold.

Mitigation Measures AQ-2.1, AQ-2.2, and AQ-2.6 would be implemented to reduce Project-related impacts, and would also be required for the Reduced Office/Increased Housing Alternative. However, even with this mitigation, impacts for this alternative would be above the thresholds and thus significant. Therefore, this impact would be significant and unavoidable, resulting in a slightly lower impact than the Project. (SU/M)

Exposure of Sensitive Receptors to Asbestos During Construction. Asbestos is a naturally-occurring mineral that was previously used in building construction due to its heat resistance and strong insulating properties. As with the Project, asbestos impacts could occur if demolition of existing buildings containing asbestos or disturbance of any features exposes workers. The Reduced Office/Increased Housing Alternative would comply with BAAQMD Regulation 11, Rule 2, which would control emissions of asbestos to the atmosphere during demolition activities. Accordingly, this impact would be less than significant, the same as the Project. (LTS)

Objectionable Odors. Similar to the Project, potential odor sources from construction of the Reduced Office/Increased Housing Alternative include diesel exhaust from heavy-duty equipment, diesel exhaust from delivery vehicles and weekly trash pick-up, and the use of architectural coatings during maintenance activities; limited odors may also result from residential cooking appliances during operations. These odors would be limited to localized areas. Although exhaust- and paint-related odors may be considered adverse, they would not affect a substantial number of people. Given mandatory compliance with BAAQMD regulations, no construction or operational activities for the Reduced Office/Increased Housing

[16] Commercial uses are more likely to have emergency generators than residential uses.

Alternative would create a significant level of objectionable odors. Accordingly, this impact would be less than significant, the same as the Project. (LTS)

Cumulative Impacts. The Reduced Office/Increased Housing Alternative would result in less criteria air pollutant emissions than the Project but would still contribute considerably to significant cumulative regional air pollutant levels, because the thresholds of significance, which are inherently cumulative, would be exceeded. (SU/M)

As noted in the cumulative discussion in Section 3.3, *Air Quality*, the analysis for consistency with BAAQMD's Clean Air Plan is inherently cumulative. Thus, the discussion above for this alternative's consistency with the Clean Air Plan is also representative of cumulative impacts. (LTS)

This alternative would result in DPM and $PM_{2.5}$ emissions that would contribute to cumulative exposure for onsite and offsite sensitive receptors, including future receptors at the site of the Patrick Henry Specific Plan. The amount of emissions would be less than the Project under this alternative, as noted above. As evaluated in Tables 3.3-15 through 3.3-18, the cumulative exposure during Project operations and construction and operation overlap would be greater than BAAQMD cumulative thresholds for $PM_{2.5}$ at onsite and offsite receptors. Due to the magnitude of exceedances for the cumulative exposure to $PM_{2.5}$, the Reduced Office/Increased Housing Alternative would not prevent significant impacts. Like the Project, no feasible mitigation has been identified that would eliminate the significant cumulative impact on sensitive receptors, but the alternative's contribution to this impact would be less than the Project's contribution. (SU/M)

5.6.4.4 Greenhouse Gas Emissions

Generation of GHG Emissions during Construction and Operation. The Reduced Office/Increased Housing Alternative would result in different amounts of office and residential space compared with the Project, which may result in a different construction duration, although that is not known for certain. However, it is likely that overall construction activities under the Reduced Office/Increased Housing Alternative would be similar to construction activities under the Project. GHG emissions from construction were determined to be less than significant with Mitigation Measure GHG-1.1 for the Project, because implementation of construction-related measures, as recommended by BAAQMD, would reduce GHG emissions. This mitigation measure would also be required for the Reduced Office/Increased Housing Alternative. BAAQMD has noted that construction emissions represent a very small portion of a project's lifetime GHG emissions. Therefore, the impact would be less than significant with mitigation, similar to the Project. (LTS/M)

Similar to the Project, operation has the potential to generate GHG emissions. Vehicle traffic would include daily trips from residents, employees, customers, delivery trucks, and waste management trucks. The Reduced Office/Increased Housing Alternative would result in 17 percent fewer vehicle trips than the Project and thus the operational GHG emissions would be reduced.

It is currently unknown whether the Reduced Office/Increased Housing Alternative would be consistent with the City's CAP. Because consistency with the City's CAP requires a detailed assessment of a project's features, it cannot be determined whether future development would be consistent or conflict with the plan. The level of detail necessary to determine consistency with the City's CAP is greater than the level of detail that is appropriate for analyzing a project's alternatives under CEQA. However, it is likely that this alternative would result in design features similar to those of the Project and be consistent with the City's CAP. This impact would be less than significant, similar to the Project. (LTS)

Conflicts with Applicable Plans and Policies. It is currently unknown whether the Reduced Office/Increased Housing Alternative would conflict with any applicable plans or policies adopted to reduce GHG emissions because the specific design features of this alternative have not been determined. Because consistency with the City's CAP,[17] CARB's 2022 Scoping Plan, and Plan Bay Area 2050 require a detailed assessment of a project's features, it cannot be determined with certainty whether this alternative would be consistent or conflict with these plans. The level of detail necessary to determine consistency with these plans is greater than the level of detail appropriate for analyzing a project's alternatives under CEQA. However, it is likely that this alternative would result in design features similar to those of the Project and be consistent with the CAP, 2022 Scoping Plan, and Plan Bay Area 2050. This impact would be less than significant, similar to the Project. (LTS)

5.6.4.5 Energy

Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources. The Reduced Office/Increased Housing Alternative would result in the same overall building area as the Project and a similar overall construction period. Energy usage under this alternative during construction would be reduced through the use of energy-efficient construction equipment and trucks as well as alternative fuels. Design features implemented under this alternative and Mitigation Measure GHG-1.1 would reduce the amount of fossil fuel consumed during construction as well as the energy intensiveness associated with building materials, including discarded construction and demolition waste. As with the Project, impacts would be less than significant with mitigation. (LTS/M)

During operations under this alternative, compliance with CALGreen and LEED building requirements and implementation of a TDM program would result in transportation energy savings, similar to the Project. Because the Reduced Office/Increased Housing Alternative would have the same overall building area, but with a different configuration for uses (i.e., more housing and less office space), energy consumption would be similar to that of the Project. Therefore, the Reduced Office/Increased Housing Alternative would not result in the inefficient, wasteful, or unnecessary consumption of energy during operations. The impacts would be less than significant, similar to the Project. (LTS)

Conflict with Energy Plan. As with the Project, the Reduced Office/Increased Housing Alternative would be required to comply with State and local renewable energy and energy efficiency plans. As a result, it would benefit from renewable energy development and increases in energy efficiency. Building energy efficiency is also expected to increase as a result of compliance with Title 24 building codes, which are expected to move toward zero net energy for new construction and 100 percent renewable energy under SB 350 and SB 100 regulations. Therefore, the Reduced Office/Increased Housing Alternative would not conflict with or obstruct a State or local renewable energy or energy efficiency plan. The impact would be less than significant, similar to the Project. (LTS)

Cumulative Impacts. Similar to the Project, it is anticipated that future energy users will become more efficient and less wasteful over time and will not create significant cumulative energy impacts. Because a significant cumulative energy impact would not result under cumulative conditions, the Reduced Office/Increased Housing Alternative would not contribute to a cumulative impact. Therefore, the impact would be less than significant, similar to the Project. (LTS)

[17] The CAP checklist notes that projects involving General Plan amendments may not use the CAP checklist and should quantify emissions. Similar to the Project, the Reduced Scale Alternative would involve a General Plan amendment. Nonetheless, the CAP checklist measures would be applicable to this alternative and, if implemented, would reduce Project-generated GHG emissions.

5.6.4.6 Noise

Construction Impacts. The Reduced Office/Increased Housing Alternative would include 26 percent less office space and 44 percent more residential units. Overall, the intensity and location of construction under this alternative would be very similar to that of the Project, because this alternative would involve the same types of construction equipment and similar worst-case distances to noise sensitive land uses as the Project. As with the Project, construction noise impacts for the Reduced Office/Increased Housing Alternative would be significant during daytime hours from a substantial increase in noise (i.e., greater than a 10 dB increase above existing levels) and during the nighttime hours from exceedance of the City Code noise limit. Implementation of Mitigation Measures NOI-1.1 would reduce construction noise but not to a to less-than-significant level. Like with the Project, it cannot be determined with certainty that the construction noise reduction control plan would sufficiently reduce noise in all circumstances. Noise from construction haul trucks, which was found to be less than significant for the Project, would be less than significant for this alternative, however, because there would be fewer haul trucks than the Project. Therefore, the impact would be significant and unavoidable with mitigation, similar to the Project. (SU/M)

For vibration impacts during construction, the Reduced Office/Increased Housing Alternative may require the use of pile drivers. The use of pile drivers would result in significant annoyance-related impacts even with Mitigation Measure NOI-3.1 because it cannot be determined that the measure would sufficiently reduce vibration in all circumstances. Like the Project, damage-related impacts would be less than significant, but annoyance-related impacts would be significant and unavoidable with mitigation. (SU/M)

Traffic Noise Impacts. The development of the Reduced Office/Increased Housing Alternative would result in an increase in vehicle trips and employment growth as compared to existing conditions, which would lead to an increase in traffic in the vicinity of the Project site. This alternative is estimated to generate up to 30,428 external vehicle trips, which is approximately 17 percent less than the 36,981 vehicle trips from the Project. Because the Reduced Office/Increased Housing Alternative would only generate 83 percent of the total vehicle trips generated by the Project, the resulting traffic noise would be slightly less with this alternative than with the Project. As explained in Section 3.6, *Noise*, the Project would result in significant traffic noise impacts at a roadway segment if the Project-related increase in noise is 3 dBA or greater. As evaluated in Table 3.6-11, the greatest increase in noise at any roadway from Project-related traffic would be 2.9 dB, which does not constitute a significant noise impact. Since the Reduced Office/Increased Housing Alternative would result in 17 percent less traffic than the Project, the increase in noise at all roadway segments would very likely be less than that of the Project. Therefore, because the greatest Project-related increase in traffic noise would be 2.9 dB and this alternative would result in a lesser increase, this alternative would not exceed the 3 dB threshold, resulting in a less-than-significant impact, similar to but slightly less than that of the Project. (LTS)

Operational Noise Impacts from Stationary Sources and Other Operational Sources. Like the Project, the Reduced Office/Increased Housing Alternative would result in a mixed-use of building types. Stationary sources and other operational sources associated with these uses could result in noise levels in excess of the City's noise limits. In addition, onsite residential uses, especially outdoor balconies, would also have the potential to generate noise from human speech and music. Noise from the parking garages could also affect residences. In general, noise impacts from operational sources would be very similar for the Project and Reduced Office/Increased Housing Alternative, because the worst-case distances between noise source and receptor could be approximately the same. Impact NOI-2 for the Project notes that, at a distance of 50 feet, onsite noise-sensitive land uses could experience a noise limit exceedance from the operation of mechanical equipment and testing of emergency generators. For this alternative, onsite land

uses may also be within 50 feet of mechanical equipment and/or emergency generators. As such, the impact is significant but, like the Project, would be less than significant with implementation of Mitigation Measure NOI-2.1. With the noise reduction plan, impacts from stationary noise equipment would be less than significant with mitigation, similar to the Project. (LTS/M) Noise impacts associated with the exposure of new residents to stationary sources of noise would therefore be significant with the Reduced Office/Increased Housing Alternative as well. Implementation of Mitigation Measure NOI-2.1 would ensure that potential noise impacts would be addressed through design (i.e., enclosures around noise-generating equipment, setbacks to maximize distance to residences, noise-reducing treatments in new buildings) and would reduce this impact to a less-than-significant level, similar to the Project. (LTS/M)

Noise from other sources associated with operations, such as amplified music and sound from events, human speech and music at the outdoor balconies, truck loading, and parking garage activity, would be similar in magnitude to noise under the Project. Although this alternative would have a different mix of development, the level of noise from events, balconies, truck loading, or parking garage activity would not differ substantially. The occurrence of the noise may be more frequent with the Project due to the greater commercial uses, but the noise levels would be approximately the same. For the reasons discussed in Impact NOI-2, noise from these sources would be less than significant for the Project and thus also less than significant for the Reduced Office/Increased Housing Alternative. (LTS)

Aircraft Noise Impacts. The area sited for development with the Project is the same as the area sited for development under the Reduced Office/Increased Housing Alternative. The Project site is adjacent to but outside the AIA of SJC. The Project site does not fall within the 65 dBA CNEL noise contour (i.e., the lowest noise contour for aircraft noise presented) for SJC, and would thus not be exposed to aircraft noise above 65 dBA.[18] Therefore, people living and working at the Project site under this alternative would not be greatly affected by aircraft noise. Impacts from aircraft noise would be less than significant, similar to the Project. (LTS)

Cumulative Impacts. Construction noise under the Project would be cumulatively considerable because Project construction noise could exceed the City's exterior noise limits at sensitive land uses or result in an increase of 10 dB or more over the ambient noise level. In addition, future residences at the Patrick Henry Specific Plan site would also be affected by a substantial increase in noise from construction at the Project site. As noted above, this alternative would use the same types of construction equipment as the Project and have worst-case distances to noise-sensitive land uses similar to those of the Project. Consequently, the Reduced Office/Increased Housing Alternative would also result in a cumulatively considerable contribution to a cumulative noise impact. Mitigation Measure NOI-1.1 would reduce construction noise levels by incorporating practices that would minimize noise; however, noise controls may not reduce noise enough in all instances to prevent an increase of 10 dB or more relative to ambient noise levels or reduce nighttime construction noise to a level that would be in compliance with City Code noise limits. The alternative's contribution to this impact would be significant and unavoidable, the same as the Project. (SU/M)

Construction of the Project was found to result in significant and unavoidable cumulative vibration impacts during construction. The same conclusion would apply to this alternative because the same types of equipment and worst-case distances would apply. The Patrick Henry Specific Plan would construct new residential units, which would result in vibration-sensitive land uses being located approximately 100 feet from the Project site. At 100 feet, pile driving would generate substantial vibration, affecting future

[18] Windus, Walter B. 2011. *Comprehensive Land Use Plan for San José International Airport*. Santa Clara County Airport Land Use Commission. Adopted: May 25, 2011. Amended: November 16, 2016.

occupants of the Patrick Henry Specific Plan site. Mitigation Measure NOI-3.1 would be implemented to minimize this impact, but it cannot be determined whether vibration levels would be reduced to below the strongly perceptible threshold in all circumstances at the cumulative receptors. The alternative's contribution to this impact would be significant and unavoidable, the same as the Project. (SU/M)

As discussed in Section 3.6, *Noise*, cumulative impacts related to non-traffic operational noise would be less than significant. Non-traffic operational noise impacts would require implementation of Mitigation Measures NOI-2.1 to be less than significant. These cumulative impacts would be the same under the Reduced Office/Increased Housing Alternative because the same general types of noise sources would be present (e.g., HVAC fans, chillers, emergency generators), resulting in similar noise levels. Future residences at the Patrick Henry Specific Plan site would also be affected by operational noise. The approximate distances to onsite and offsite sensitive land uses, as noted above, would be similar to those under the Project. (LTS/M)

With regard to traffic noise effects, future regional growth in the Project vicinity would result in increases in traffic that would cumulatively increase traffic noise. As evaluated in Table 3.3-14, the increase in traffic noise for the cumulative conditions relative to existing conditions would be a maximum of 9.3 dB, which would be a noticeable and thus significant increase in noise. However, Table 3.3-14 also presents the Project-only contribution to cumulative noise impacts (i.e., relative to future conditions without the Project), and the Project contribution would be 2.2 dB, which would not be noticeable. Thus, because the Reduced Office/Increased Housing Alternative would have approximately 17 percent fewer vehicle trips in the cumulative conditions, the contribution from this alternative would be less than 2.2 dB and thus not noticeable. Therefore, the Reduced Office/Increased Housing Alternative's contribution to the cumulative traffic noise impact would be less than significant, similar to the Project. (LTS)

5.6.4.7 Cultural Resources

Impact Not Evaluated in Detail. The Reduce Office/Increased Housing Alternative would not cause a substantial adverse change in the significance of a historic structure because none of the existing buildings onsite are considered historic. Therefore, the Reduced Office/Increased Housing Alternative would result in no impact on historic structures. (NI)

Impacts on Archaeological Resources and Human Remains. Similar to the Project, archaeological deposits and human remains would not be encountered during operation of the Reduced Office/Increased Housing Alternative. However, the presence of prehistoric archaeological sites in the Project vicinity suggests that there could be additional previously undiscovered prehistoric archaeological resources or human remains in the Project area that could be affected by ground-disturbing activities during construction. Accordingly, because ground-disturbing activities during construction of the Reduced Office/Increased Housing Alternative would be the same as under the Project, this alternative has the potential to encounter previously undiscovered archaeological resources or human remains. As with the Project, implementation of Mitigation Measures CUL-2.1, CUL-2.2, and CUL-2.3 would reduce this impact to a less-than-significant level. (LTS/M)

Cumulative Impacts. All significant archaeological resources and human remains are unique and nonrenewable resources. Therefore, the cumulative effects of all development on these resources are considered significant. However, compliance with Mitigation Measures CUL-2.1, CUL-2.2, and CUL-2.3 would lessen the Reduced Office/Increased Housing Alternative contribution to the cumulative impact to less than cumulatively considerable and reduce the significant cumulative impacts associated with the loss

of archaeological resources and the disturbance of human remains to a less-than-significant level, similar to the Project. (LTS/M)

5.6.4.8 Biological Resources

Topics Found to Have No Impact. As with the Project, the Reduced Office/Increased Housing Alternative would not result in the direct loss of or damage to special-status plants or fish, the loss or degradation of riparian habitat or sensitive natural communities, interference with the movement of native resident or migratory fish species, interference with wildlife corridors, or conflict with a HCP or NCCP. The Reduced Office/Increased Housing Alternative would result in no impact related to these issues, similar to the Project (and for the same reasons described for the Project). (NI)

Impacts on Special Status Species. Similar to the Project, operation of the Reduced Office/Increased Housing Alternative would not result in significant impacts because birds and bats would become acclimated to operational noise. However, construction of the Reduced Office/Increased Housing could result in impacts on special-status nesting birds and bat species. If the Reduced Office/Increased Housing Alternative is implemented during the nesting season for birds (February 1 through August 31), construction activities could result in the direct mortality of adult or young birds, the destruction of active nests, and/or disturbance of nesting adults, causing nest abandonment and/or loss of reproductive effort, similar to the Project. In addition, as with the Project, construction activities could result in the direct mortality of roosting bats, including pallid bat, during tree and building removal. The Reduced Office/Increased Housing Alternative would result in the same tree removal and building demolition as the Project. Therefore, as with the Project, impacts on special-status species during construction would be less than significant with implementation Mitigation Measure BIO-1.1 and BIO-4.1. (LTS/M)

Impacts on State or Federally Protected Wetlands. Similar to the Project, operation of the Reduced Office/Increased Housing Alternative would not result in significant impacts on State- or federally protected wetlands. During construction, the Reduced Office/Increased Housing Alternative would result in the same amount of demolition as the Project and the same amount of development and floor area. There are no State or federally protected wetlands, as defined by Section 404 of the CWA, on the Project site. Although no direct impacts would occur, development on the Project site has the potential to cause indirect impacts on nearby wetlands or water quality within those wetlands (e.g., Calabazas Creek), given the site's runoff patterns. Runoff under this alternative would be the same as the Project since the same amount of floor area and the same building footprints would be constructed. In order to meet the federal, state, and local permit and policy requirements, projects must incorporate impervious surfaces, tree planters, grassy swales, bioretention and/or detention basins, and other features, which would be included as part of the Reduced Office/Increased Housing Alternative site plans. Compliance with the SWPPP during construction, as well as post-construction measures and design features required by the MRP, would reduce the potential impact from the Reduced Office/Increased Housing Alternative on Calabazas Creek to a less-than significant level. Impacts would be the same as the Project. (LTS)

Impede Use of Native Wildlife Nursery Sites or Interfere with Movement of Native Migratory Wildlife Species. Currently, there are approximately 350 trees on the Project site and four buildings; like the Project, all of the existing features would be removed under the Reduced Office/Increased Housing Alternative. Impacts on native migratory birds, including tree-nesting raptors, could involve direct impacts from the removal of nesting trees or shrubs, or other nesting substrate (e.g., buildings), as well as indirect impacts from increases in noise and human activity near nesting habitat during construction and operation. Construction and operational activities would be the same the Reduced Office/Increased Housing Alternative as the Project due to the same amount of development. Similar to the Project,

Mitigation Measure BIO-4.1 would be required in order to protect nesting birds. Implementation of this mitigation measure would result in less-than-significant impacts.

No bird species are expected to occur in large numbers on or immediately adjacent to the Project site. In addition, it is not expected that large numbers of migratory birds would use the Project site as an important flight path and be subject to a high risk of collision with proposed buildings during operation. Because of the overall low level of abundance with respect to birds on and immediately adjacent to the Project site, the frequency of bird collisions with buildings is expected to be low. It is expected that the proposed buildings under the Reduced Office/Increased Housing Alternative would be the same general height as the Project. Regardless, the area of a building that poses the greatest risk for avian collisions is the lower portion because the majority of daily routine activities (e.g., foraging, roosting, nesting) occur relatively close to the ground. Therefore, bird collisions would occur at a similar rate as under the Project. Although bird collisions cannot be completely avoided, the Project Sponsor would incorporate the City's standard condition of approval for bird safety into the final design of the Reduced Office/Increased Housing Alternative buildings to reduce potentially significant impacts related to bird collisions. As with the Project, implementation of Mitigation Measure BIO-4.2 would reduce impacts due to bird collisions during operation to less than significant, resulting in similar impacts compared to the Project. (LTS/M)

Conflicts with Local Policies or Ordinances Protecting Biological Resources. Operation of the Reduced Office/Increased Housing Alternative would not result in conflicts with any local policies or ordinances protecting biological resources. Construction of the Reduced Office/Increased Housing Alternative would result in the removal of trees, similar to the Project. Per City Code Chapter 12.35, all removed suitable trees must be replaced at a ratio of 2:1 for 24-inch box trees or 4:1 for 15-gallon box trees. Dead trees are required to be replaced at a ratio of 1:1. As with the Project, the Reduced Office/Increased Housing Alternative would be required to adhere to this local policy. Therefore, the alternative would result in less-than-significant impacts related to conflicts with policies or ordinance protecting biological resources, similar to the Project. (LTS)

Cumulative Impacts. As discussed in Section 3.8, *Biological Resources*, cumulative impacts with respect to biological resources would be less than significant with the implementation of Mitigation Measures BIO-1.1, BIO-4.1, and BIO-4.2. Because this alternative is conservatively assumed to involve the same amount of tree removal, the same amount of building demolition, and the same building footprint impacts as the Project, impacts would be less than cumulatively considerable with mitigation, similar to the Project. (LTS/M)

5.6.4.9 Geology and Soils

Topics Found to Have No Impact. Similar to the Project, the Reduced Office/Increased Housing Alternative would not include septic tanks/alternative wastewater disposal systems and would not be susceptible to landslides and would result in no impacts related to these topics. (NI)

Fault Rupture, Seismic Hazards, Erosion, and Expansive Soils. Construction and operation of the Reduced Office/Increased Housing Alternative would be subject to the same seismic and soil conditions as the Project because they would be located on the same site and would be required to comply with existing regulations that address seismic hazards, expansive soils, and erosion. Therefore, similar to the Project, the Reduced Office/Increased Housing Alternative would result in less-than-significant impacts related to surface fault rupture, ground shaking, liquefaction, lateral spreading, soil erosion and loss of topsoil, and expansive soils for the same reasons described for the Project. (LTS)

Unstable Soil. Construction of the Reduced Office/Increased Housing Alternative would include a similar amount of excavation and dewatering, as well as the placement of fill material on the site, compared with the Project because this alternative would include the same below-grade excavation for parking garages. Thus, this alternative would result in similar significant impacts related to collapse, subsidence, and settlement of unstable soil as the Project for the same reasons described for the Project. Implementation of Mitigation Measure GEO-3.1 would reduce these impacts to less than significant with mitigation for the same reasons described for the Project. Operation of the Reduced Office/Increased Housing Alternative would not include the placement of fill material or involve excavation/dewatering; therefore, it would not contribute to collapse, subsidence, or settlement of unstable soil. (LTS/M)

Paleontological Resources. The Reduced Office/Increased Housing Alternative would be located on the same site as the Project and include similar below-grade excavation for the parking garages. Thus, this alternative would be located in areas that are underlain by geologic units that have yielded scientifically important fossil finds, including vertebrate remains. The Reduced Office/Increased Housing Alternative would have a significant impact on significant paleontological resources. Implementation of Mitigation Measure GEO-6.1 would ensure that the significant impacts related to paleontological resources would be reduced to a less-than-significant level, similar to the Project. (LTS/M)

Cumulative Impacts. As discussed in Section 3.9, *Geology and Soils*, cumulative construction impacts with respect to geology and soils and paleontological resources would be less than significant with implementation of Mitigation Measures GEO-3.1 and GEO-6.1. This alternative would result in impacts similar to those of the Project because a similar below-grade parking garage would be developed; thus, excavation could still result in impacts related to unstable soils and paleontological resources. As discussed in Section 3.9, *Geology and Soils*, cumulative operational impacts with respect to geology and soils and paleontological resources would not occur. Therefore, impacts would be less than cumulatively considerable with mitigation, similar to the Project. (LTS/M)

5.6.4.10 Hydrology and Water Quality

Surface Water Quality. The Reduced Office/Increased Housing Alternative would be required to comply with existing regulations that protect surface water quality during construction and operation and, therefore, would result in less-than-significant impacts related to surface water quality for the same reasons described for the Project. (LTS)

Groundwater Quality and Supply. The Reduced Office/Increased Housing Alternative would include excavation dewatering and redevelopment in areas where contaminated soil or groundwater and water wells may be present, which would result in significant impacts on groundwater quality, supply, and management, similar to those of the Project (and for the same reasons described for the Project). Implementation of Mitigation Measures GEO-3.1, HAZ-2.1, WQ-1.1, and WQ-1.2 would reduce these impacts on groundwater quality during construction and operation as well as groundwater supply and management during construction to less than significant with mitigation for the same reasons described for the Project, resulting in similar impacts. (LTS/M)

The Reduced Office/Increased Housing Alternative would increase the demand on the city's municipal water supply which could result in similar significant operational impacts as the Project related to groundwater supply and management for the same reasons described for the Project. Implementation of Mitigation Measures WQ-2.1 would reduce these operational impacts to less than significant with mitigation for the same reasons described for the Project, resulting in similar impacts. (LTS/M)

Drainage Patterns. Construction and operation of the Reduced Office/Increased Housing Alternative would alter drainage patterns on the Project site and would result in less-than-significant impacts related to the erosion and sedimentation for the same reasons described for the Project. The Reduced Office/Increased Housing Alternative would increase groundwater recharge and decrease stormwater runoff from the Project site by increasing the amount of landscaped area on the Project site and would therefore create a beneficial effect on groundwater recharge similar to the Project. Altering drainage patterns on the Project site could result in similar significant impacts as the Project related to flooding and exceeding the capacity of storm drain systems for the same reasons described for the Project. Implementation of Mitigation Measures WQ-3.1 and WQ-3.2 would reduce these impacts to less than significant with mitigation for the same reasons described for the Project, resulting in similar impacts. (LTS/M)

Release of Pollutants Due to Inundation. The Reduced Office/Increased Housing would be subject to the same risks for inundation during construction and operation as the Project and would result in less-than-significant impacts related to the release of pollutants in the event of a tsunami, seiche, or dam failure inundation for the same reasons described for the Project in. The Reduced Office/Increased Housing Alternative would include construction within flood hazard areas and could result in a similar significant impact as the Project related to the release of pollutants due to inundation by flooding for the same reasons described for the Project. Implementation of Mitigation Measures WQ-3.2 would reduce this impact to less than significant with mitigation for the same reasons described for the Project, resulting in similar impacts. (LTS/M)

Conflict with a Water Quality Control Plan or Groundwater Management Plan. The Reduced Office/Increased Housing Alternative could affect groundwater quality, supply, and management during construction and operation, as discussed above. Therefore, it could result in a significant impact similar to that of the Project related to conflicting with the Basin Plan and Groundwater Management Plan for the Santa Clara and Llagas Subbasins. Implementation of Mitigation Measures WQ-1.1, WQ-1.2, GEO-3.1, and HAZ-2.1 would reduce this impact to less than significant with mitigation for the same reasons described for the Project, resulting in similar impacts. (LTS/M)

Cumulative Impacts. As discussed in Section 3.10, *Hydrology and Water Quality*, cumulative impacts with respect to hydrology and water quality would be less than significant with implementation of Mitigation Measures WQ-1.1, WQ-1.2, GEO-3.1, and HAZ-2.1. This alternative would result in construction and operational impacts that would be similar to those of the Project because the risks to surface waters and groundwater would be similar, as described above. Therefore, impacts would be less than cumulatively considerable with mitigation, similar to the Project. (LTS/M)

5.6.4.11 Hazards and Hazardous Materials

Topics Found to Have No Impact. Similar to the Project, the Reduced Office/Increased Housing Alternative would not be located within 0.25 mile of schools or on a hazardous materials release site listed pursuant to a Government Code Section 65962.5, and would not be susceptible to wildfire. Therefore, the Reduced Office/Increased Housing Alternative would result in no impacts related to these topics. (NI)

Aviation Hazards, Emergency Response and Evacuation, and Routine Transport, Use, or Disposal of Hazardous Materials. Construction and operation of the Reduced Office/Increased Housing Alternative would be required to comply with existing regulations and policies that address aviation hazards, emergency response and evacuation, and hazardous materials management and would therefore result in less-than-significant impacts related to aviation hazards, emergency response and evacuation,

and the routine transport, use, or disposal of hazardous materials for the same reasons described for the Project, resulting in similar impacts. (LTS)

Accidental Release of Hazardous Materials. Construction of thee Reduced Office/Increased Housing Alternative would include potential disturbance of contaminated soil and groundwater and redevelopment above areas of potential soil and groundwater contamination, which would result in similar significant construction and operational impacts related to the accidental release of hazardous materials as the Project for the same reasons described for the Project. Implementation of Mitigation Measure HAZ-2.1 would reduce these impacts to less than significant with mitigation for the same reasons described for the Project, resulting in similar impacts. (LTS/M)

Cumulative Impacts. As discussed in Section 3.11, *Hazards and Hazardous Materials*, cumulative impacts with respect to aviation hazards, emergency response and evacuation, and hazardous materials management would be less than significant. Impacts related to the accidental release of hazardous materials would be less than significant with implementation of Mitigation Measure HAZ-2.1. This alternative would result in construction and operational impacts similar to those of the Project because the alternative would be located on the same site as the Project. Therefore, impacts would be less than cumulatively considerable with mitigation, similar to the Project. (LTS or LTS/M)

5.6.4.12 Population and Housing

The Reduced Office/Increased Housing Alternative would result in approximately 5,590 residents on the Project site, compared with 3,870 residents under the Project. Because 6,667 employees were assumed in the General Plan for the Project site, the Reduced Office/Increased Housing Alternative would generate fewer employees than planned for, resulting in 1,207 fewer net new employees than assumed in the General Plan. Compared to the Project, which would generate 544 net new employees, this would be a considerable decrease.

Topics Found to Have No Impact. Like the Project, the Reduced Office/Increased Housing Alternative would demolish the existing buildings at the Project site. No existing residential units would be demolished. Therefore, as with the Project, the Reduced Office/Increased Housing Alternative would not displace housing or people. (NI)

Population Growth. Construction of the Reduced Office/Increased Housing Alternative would temporarily increase construction employment in the city. The demand for construction employment would most likely be met within the existing and future labor market in the city and the county. Therefore, the population within the city or county as a result of workers relocating is not anticipated to increase substantially during Reduced Office/Increased Housing construction, resulting in a less-than-significant impact related to population growth.

During operation, the Reduced Office/Increased Housing Alternative would result in a direct population increase due to onsite residents of approximately 5,590 people. The city's population is expected to grow by approximately 22,285 between 2025 and 2040. Therefore, the housing units at the Project site under the Reduced Office/Increased Housing Alternative would account for approximately 25.1 percent of the city's population growth over this 15-year period. In comparison, the Project would account for approximately 17.3 percent of the city's population growth from 2025 to 2040. Therefore, the Reduced Office/Increased Housing Alternative would result in a greater onsite population growth than the Project.

The increase in employment at the Project site during operation would not result in increased housing demand and an influx of new residents in the city and other jurisdictions in the region and may even result

in increased housing demand outside the Bay Area. Because the alternative would generate fewer employees onsite than was planned for in the General Plan, the result would be a decrease in anticipated demand for housing units to support employment in the city and county. Therefore, the Reduced Office/Increased Housing Alternative would result in a lesser population increase in the city and region than the Project. Therefore, the Reduced Office/Increased Housing Alternative would not induce a substantial level of unplanned population growth, either directly or indirectly, and impacts would be less than significant but to a lesser degree than the Project. (LTS)

Cumulative Impacts. The Reduced Office/Increased Housing Alternative, in combination with other projected growth in the city, would not increase population and housing in the city because the direct growth generated by the alternative would be within planned projections and indirect growth (resulting from employees) would be lower than what was planned for at the Project site. Therefore, the Reduced Office/Increased Housing Alternative's contribution to a cumulative impact would be less than significant. (LTS)

5.6.4.13 Public Services and Recreation

Impact on Fire Services and Facilities. Construction of the Reduced Office/Increased Housing Alternative would result in onsite construction workers. However, construction workers are not expected to put an additional strain on fire protection services that would require the rehabilitation of existing or construction of new facilities. Therefore, similar to the Project, impacts related to fire protection during construction would be less than significant. (LTS)

Operation of the Reduced Office/Increased Housing Alternative would result in additional employees and residents on the Project site. The increase in residents and employees could result in an increase in the number of calls for fire protection and emergency services. However, the SCFD does not use a population-based staffing standard but, rather, bases its staffing on the ability to send trained and equipped personnel within response times. Once operational in 2025, it is expected that Fire Station 10 would provide service at the Project site in the event of a fire or medical emergency, thereby reducing response times for the area. The Santa Clara Municipal Fire and Environmental Code incorporates the 2019 International Fire Code. All new construction under the Reduced Office/Increased Housing Alternative would need to be in conformance with the codes, which require new construction to facilitate emergency access and include fire protection systems such as alarm systems and sprinklers. This would reduce the risk of fire in new office and residential buildings under the Reduced Office/Increased Housing Alternative. Therefore, similar to the Project but to a lesser degree, the Reduced Office/Increased Housing Alternative would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered fire protection facilities in order to maintain acceptable service ratios, response times, or other performance objectives. As such, impacts related to fire protection under the Reduced Office/Increased Housing Alternative would be less than significant, similar to the Project. (LTS)

Impact on Polices Services and Facilities. Construction workers under the Reduced Office/Increased Housing Alternative are not expected to increase the SCPD's service population in a way that would necessitate the expansion of existing or construction of new SCPD facilities. Therefore, similar to the Project, impacts related to police protection during construction would be less than significant.

During operation, the Reduced Office/Increased Housing Alternative could affect the SCPD by intensifying site activity; adding new employees, residents, and visitors; increasing square footage; and increasing traffic incidents. Adding to the service population would lead to an overall increase in service calls to the SCPD. In addition, the need for additional officers and staff due to implementation of the Reduced

Office/Increased Housing Alternative could result in the need for additional equipment (e.g., radios, vehicles, computers) and a redesign of existing SCPD facilities to resolve capacity issues. Although additional SCPD staff may be required, the Reduced Office/Increased Housing Alternative, on its own, would not trigger the need for the construction of a new police facility or the expansion of the existing one. Any additional SCPD services required to meet the needs of the Reduced Office/Increased Housing Alternative would be accommodated within existing facilities. In addition, the SCPD participates in a mutual aid agreement with the other law enforcement jurisdictions in Santa Clara County, which could provide services to the Project site, as needed. Therefore, similar to the Project but to a lesser degree, the Reduced Office/Increased Housing Alternative would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered police facilities in order to maintain acceptable service ratios, response times, or other performance objectives. As such, impacts related to police protection would be less than significant, similar to the Project. (LTS)

Impact on School Facilities. Construction workers under the Reduced Office/Increased Housing Alternative are not expected to trigger a need for new schools or require expansion or rehabilitation of existing facilities. Therefore, similar to the Project, impacts related to schools during construction would be less than significant. (LTS)

During operation, the Reduced Office/Increased Housing Alternative would generate approximately 5,590 onsite residents and, therefore, would have a direct impact on schools. In addition, new onsite employees would result in new residents throughout the city, which would also need to be served by the SCUSD. School enrollment in the city has been consistently declining over the last 7 years and is projected to continue to decline over the next decade. Capacity for the additional elementary school and middle school students can currently be accommodated in Kathryn Hughes Elementary and Huerta Middle School. High school capacity throughout the district in general is affected; however, Kathleen MacDonald High, which currently serves only the ninth grade, will be adding a new grade each year as the current student class progresses. Therefore, by the time the Reduced Office/Increased Housing Alternative is operational, adequate space would be available for high school students generated as a result of the new onsite residents and employment. In addition, the Reduced Office/Increased Housing Alternative would be subject to SB 50 School Impact Fees. Section 65996 of the State Government Code states that the payment of school impact fees established by SB 50 is deemed to constitute full and complete mitigation for school impacts from development that may be required from a developer by any State or local agency. Although the payment of the school impact fee by the Project Sponsor could contribute toward the construction or expansion of schools, any actual construction or expansion of school facilities would not be a direct result of the alternative and would be required to undergo a separate CEQA review process. Therefore, the Reduced Office/Increased Housing Alternative would not trigger the need for the expansion or construction of new schools, resulting in a less-than-significant impact, similar to but greater than the Project. (LTS)

Impact on Parks and Recreation Facilities. Implementation of this alternative could contribute to an increase in demand for parkland because it would add new residents to the city. The increased population associated with the alternative could contribute to overuse of existing parks near the Project site and lead to physical deterioration of park facilities and overcrowding. The alternative would be required to dedicate public parkland and/or pay a fee in lieu of parkland dedication to help offset the impact on existing parkland and recreational facilities associated with demand from new residents. This would result in a less-than-significant impact on park and recreational land. (LTS)

Due to onsite employment and residential uses during operation, the Reduced Office/Increased Housing Alternative would increase the population in the area and, therefore, increase the demand for local

neighborhood and community parks and recreational space. The Reduced Office/Increased Housing Alternative is expected to include the same amount of dedicated parkland and private recreational amenity space as the Project (i.e., approximately 10 acres of dedicated parkland and approximately 4 acres of private active recreational amenity space). Therefore, the Reduced Office/Increased Housing Alternative would provide dedicated parkland and private recreational amenity space for employees and residents but would not increase the demand for recreational areas. Because the Reduced Office/Increased Housing Alternative would provide dedicated park and private recreational amenities that would meet the demands of employees and residents, it would not increase demand on existing parks and recreational spaces. Therefore, very little physical deterioration would occur at these sites as a result of the Reduced Office/Increased Housing Alternative. The Reduced Office/Increased Housing Alternative would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered park facilities in order to maintain acceptable service ratios or other performance objectives. As such, impacts related to parks would be less than significant, similar to but greater than those of the Project. (LTS)

Impact on Library Facilities. Under this alternative, onsite construction workers would most likely be drawn from the existing and future labor market in the city and the county. Therefore, as with the Project, construction of the Reduced Office/Increased Housing Alternative would not put additional strain on library services that would require the rehabilitation of existing or the construction of new library facilities, resulting in less-than-significant impacts. (LTS)

The addition of employees and residents on the Project site during operation would increase the population of library users. However, based on ABAG projections and existing library space, population increases within the city by 2040 would not result in an exceedance of the suggested minimum of 0.3 square feet of library space per capita. Therefore, the Reduced Office/Increased Housing Alternative would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered library facilities in order to maintain acceptable service ratios or other performance objectives. Similar to the Project, the Reduced Office/Increased Housing Alternative would result in a less-than-significant impact related to libraries. (LTS)

Cumulative Impacts. Cumulative development in the city would result in increased demand for fire services, police services, school facilities, parks, recreational facilities, and library facilities to accommodate growth. As with the Project, cumulative impacts on public services would be significant if the firefighter and police service response time is degraded, and new school, park, and library facilities are not constructed to accommodate this growth. The Reduced Office/Increased Housing Alternative would add employees and residents at the Project site. As with the Project, although additional firefighters and police could be needed for the Reduced Office/Increased Housing Alternative to maintain response times, staffing increases could be accommodated within existing facilities or within the new Fire Station 10. With the provision of the City's school impact fees, as well as dedication of public parkland and private recreational amenities to help offset the impact on existing parkland and recreational facilities associated with demand from new residents, the cumulative impact on parks and recreation and schools would be less than significant. Therefore, as with the Project, the Reduced Office/Increased Housing Alternative's cumulative impacts on public service providers would be less than cumulatively considerable. (LTS)

5.6.4.14 Tribal Cultural Resources

Impacts on Tribal Cultural Resources. Similar to the Project, there would be no impacts on tribal cultural resources during operation of the Reduced Office/Increased Housing Alternative. However, construction of the Reduced Office/Increased Housing Alternative could result in impacts during ground-

disturbing activities. The Northwest Information Center records search and literature review indicated no previously recorded cultural resources within or adjacent to the Project site. This includes tribal cultural resources listed or eligible for listing in the CRHR or a local register of historical resources. Similar to the Project, under the Reduced Office/Increased Housing Alternative, archaeological deposits that qualify as tribal cultural resources could be encountered during excavation because similar excavation for the below-grade parking garages would be required under this alternative. Such resources would be eligible for listing in the CRHR or a local register of historical resources, or the lead agency, in its discretion and supported by substantial evidence, could determine the resources to be significant pursuant to the criteria set forth in subdivision (c) of PRC Section 5024.1. Thus, significant impacts related to tribal cultural resources could result from construction of the Reduced Office/Increased Housing Alternative. However, similar to the Project, implementation of the Mitigation Measures CUL-2.1, CUL-2.2, and CUL-2.3 would reduce impacts on tribal cultural resources to a less-than-significant level. (LTS/M)

Cumulative Impacts. Cumulative development in the city would result in demolition or alteration of non-archaeological and archaeological resources that may qualify as tribal cultural resources under CEQA. Because the Project site is situated in an archeologically sensitive area, the possibility exists of encountering unknown tribal cultural resources during ground-disturbing activities associated with construction of the Reduced Office/Increased Housing Alternative. Therefore, the Reduced Office/Increased Housing Alternative, similar to the Project, could contribute to a cumulative loss of tribal cultural resources. However, implementation of Mitigation Measures CUL-2.1, CUL-2.2, and CUL-2.3, which require an archaeological monitoring plan, cultural resources sensitivity training for all construction crews participating in ground-disturbing activities, and stopping work if archaeological deposits are encountered during ground-disturbing activities, would reduce impacts to less than significant, similar to the Project. (LTS/M)

5.6.4.15 Utilities and Service Systems

Topics Found to Have No Impact. Similar to the Project, the Reduced Office/Increased Housing Alternative would not result in the generation of unique types of solid waste that would conflict with existing regulations regarding solid waste disposal. Therefore, there would be no impact related to complying with applicable federal, State, and local statutes and regulations, the same as the Project. (NI)

Utility Relocation, Construction, or Expansion. Similar to the Project, the Reduced Office/Increased Housing Alternative would upgrade all utilities to meet the demand from the alternative's increased number of onsite residents and employees. The construction of utility infrastructure improvements would have the potential to cause significant adverse environmental effects, such as fugitive dust generation, noise generation, sedimentation, and erosion. The proposed utility expansions are a part of the Project description for this alternative, and the potential impacts that would result from construction of these facilities are evaluated throughout this chapter. In addition, implementation of Mitigation Measures WQ-3.1 and WQ-3.2 would ensure that potential construction impacts of the Project related to exceeding the capacity of existing or proposed stormwater drainage systems would be less than significant with mitigation. Specifically, the mitigation measures would require a hydraulic study to be prepared to demonstrate that existing and proposed stormwater drainage systems would be capable of conveying 10-year peak runoff from the Project site and ensure that such flows from the Project site during a 100-year flood event would remain within public roadway limits and would not extend into private property. Furthermore, modifications to the Project design would be implemented, if necessary, and a construction-period stormwater drainage control plan would be implemented. Therefore, similar to the Project, the Reduced Office/Increased Housing Alternative would not require or result in the relocation or construction of new or expanded utility infrastructure, beyond the facilities already included

in the Project description for this alternative and evaluated in this chapter, the construction or relocation of which could cause significant environmental effects. This impact would be less than significant with mitigation. (LTS/M)

Water Supply. Construction activities under the Reduced Office/Increased Housing Alternative would be served by existing water systems and infrastructure. Because there is adequate water service available at the Project site, construction activities that require water, such as dust suppression and dewatering, would be met through the metered use of water conveyed by water trucks and tanks. Therefore, the impact on water supplies during construction would be less than significant, similar to the Project. (LTS)

During operation, the Project's total water demand would be 646.4 acre-feet per year. Given the similar amount of development under the Reduced Office/Increased Housing Alternative, water demand associated with this alternative would be similar to that of the Project. When taking into account the water demand of other approved development as well as the water demand of the Reduced Office/Increased Housing Alternative, there would be an adequate water supply under the normal-year, single dry-year, and five consecutive dry-year scenarios, as with the Project. Therefore, as with the Project, implementation of the Reduced Office/Increased Housing Alternative would have a less-than-significant impact on water supplies. (LTS)

Wastewater Treatment Capacity. Construction activities associated with the Reduced Office/Increased Housing Alternative would be served by the existing sewer system and infrastructure. Because portable restrooms would be temporarily installed onsite, construction is not anticipated to result in substantially elevated wastewater levels in the local sanitary sewer system. In addition, dewatering discharge rates would be less than peak storm flows and within system capacity. Therefore, similar to the Project, this alternative would result in a less-than-significant impact on wastewater treatment providers during construction. (LTS)

During operation, the Project's estimated BWF would be 51,533 gpd by 2035. Development under the Reduced Office/Increased Housing Alternative would be similar to that of the Project; therefore, wastewater demand associated with this alternative would be similar to that of the Project. As with the Project, implementation of the Reduced Scale Alternative would require the sewer modifications (e.g., the use of 12-inch-diameter pipes) to maintain consistent sizing between existing upstream and downstream 12-inch segments. Impacts on wastewater facilities would be less-than-significant. (LTS)

Solid Waste Capacity. Demolition under the Reduced Office/Increased Housing Alternative would result in the same amount of demolition waste as the Project and would not constitute a substantial portion of the solid waste facilities' daily permitted capacity. Therefore, the solid waste facilities that would serve the Project site during construction would be able to accommodate the construction waste generated by the Reduced Office/Increased Housing Alternative.

The Project would generate approximately 6,235 tons per year of solid waste (without any diversion), or 2,182 tons per year with a 65 percent diversion rate. Given the similar amount of development under the Reduced Office/Increased Housing Alternative, solid waste generation under this alternative would be similar to that of the Project. The amount of solid waste produced on the Project site would be small compared to the remaining daily permitted capacity at Newby Island Landfill. Therefore, similar to the Project, the Reduced Office/Increased Housing Alternative would be served by a landfill with adequate permitted capacity to accommodate its solid waste disposal needs. (LTS)

Cumulative Impacts. The Reduced Office/Increased Housing Alternative would result in utilities and service system impacts similar to those of the Project. Therefore, cumulative impacts under the Reduced

Office/Increased Housing Alternative, including impacts related to utility relocation, water supply, wastewater treatment capacity, and solid waste capacity, would be less than cumulatively considerable. (LTS)

5.6.5 Construction Sequence Alternatives

Four different construction scenarios were created to modify the order in which the four areas could be developed. The construction sequence alternatives are:

- Simultaneous Project Construction Alternative
- No Overlapping Construction Alternative
- Residential Uses Constructed First Alternative
- Residential Uses Constructed Last Alternative

All other Project characteristics and assumptions would remain the same under each construction sequence alternative as under the Project, including total development potential, types of land uses, parking, open space, access, and circulation.

All four of the construction sequence alternatives are discussed in the impacts analysis below.

5.6.5.1 Land Use

The construction sequence alternatives would result in a varying amount of construction workers at the Project site at any given time, depending on the duration of construction and each phasing. However, the demand for construction employment would very likely be met within the existing and future labor market in the city and the county. Therefore, due to the temporary nature of construction employment, it is unlikely that any of the construction sequence alternatives would permanently affect the jobs/housing imbalance in the city during construction. Regardless, the construction sequence alternatives would result in the same build-out as the Project; just construction phasing and duration would be different. Therefore, the same improvement in the jobs/housing ration would occur during operation as under the Project, resulting in no impact. (NI)

The construction sequence alternatives would result in the same building heights as the Project and would have the same less-than-significant impacts related to the CLUP for SJC. In addition, the construction sequence alternatives would require the same changes in land use designations and zoning as the Project. The proposed General Plan amendment, including the land use classification, would meet the intent of the land use policies, any potential conflicts with the General Plan related to the new land use classification would be less than significant. As with the Project, the construction sequence alternatives would be generally consistent with the General Plan goals and policies. The General Plan includes construction-related goals and policies and the construction sequence alternatives would be required to adhere to these goals and policies, similar to the Project. Similar to the Project, impacts would be less than significant. (LTS)

Cumulative impacts under the construction sequence alternatives would be the same as under the Project because the total amount of development would be the same. Thus, the contribution of the construction sequence alternatives to the cumulative land use impact would be less than significant, the same as the Project. (LTS)

5.6.4.2 Transportation

The construction sequence alternatives modify the order in which the four areas could be developed. All other Project characteristics and assumptions would remain the same under each construction sequence alternative as under the Project, including total development potential, types of land uses, parking, open space, access, and circulation. Therefore, all the transportation related impacts under this alternative would be the same as under the Project. (LTS)

All of the construction sequence alternatives would require the same number of haul trips and construction workers' trips. However, the Simultaneous Project Construction Alternative would generate the most trips per day, while the No Overlapping Construction Alternative would generate the fewest trips per day during the construction period. Heavy-duty truck trips are excluded from VMT consideration; therefore, the hauling of demolition debris would not affect VMT under any of the construction sequence alternatives. Furthermore, VMT generated by construction workers' trips to and from the site would be less than the VMT generated upon build-out of the development under all of the construction sequence alternatives because there would be fewer construction trips than operational trips, resulting in a less-than-significant impact. (LTS)

Regardless of the construction scenario, a construction management plan would be reviewed and approved by the Public Works Department, similar to requirements under Project Mitigation Measure TRA-1.1 (Construction Management Plan). The plan would ensure that the impacts related to consistency with adopted plans, ordinances, and policies addressing the circulation system; hazards due to a geometric design feature or incompatible uses; and inadequate emergency access would be less than significant with mitigation. (LTS/M)

Cumulative impacts under the construction sequence alternatives would be the same as under the Project because the total amount of development would be the same. Therefore, the construction sequence alternatives in combination with cumulative projects would have a less-than-significant cumulative transportation impact with mitigation, similar to the Project. (LTS/M)

5.6.4.3 Air Quality

The construction sequence alternatives would result in variations in criteria pollutant and health risk impacts from the Project. These variations have been analyzed in detail in the Construction Sequences Air Quality and Health Risk Assessment Technical Memorandum (Appendix 5). The memo has found that the scenario with the highest level of maximum daily criteria pollutant emissions during construction would be the Simultaneous Project Construction Alternative. The second highest would be the Residential Uses Constructed First Alternative, with the third highest being the Residential Uses Constructed Last Alternative. All three of these construction scenarios would exceed BAAQMD project-level NO_X emissions thresholds. The only scenario without a maximum daily criteria pollutant emissions exceedance during construction was the No Overlapping Construction Alternative.

Mass emissions for operations, as well as construction and operations overlap, were not evaluated for the construction sequence alternatives; however, the operational emissions for all construction sequence alternatives are anticipated to be relatively similar. Because of the different construction schedules, the alternatives would begin operations in different years, which would affect emissions from mobile sources. Vehicles generally get cleaner (i.e., lower emitting) as time passes; as such, the Simultaneous Project Construction Alternative would begin operations in 2030 and result in higher emissions from mobile sources than the No Overlapping Construction Alternative, which would begin operations in 2043. Each construction sequence alternative would ultimately result in the same amount of vehicle activity,

however, and operational mobile-source emissions would be approximately similar. Any difference in emissions would be the result of the difference in emissions efficiency from the vehicle fleet operating in different years.

For the health risk impacts, the four different construction sequence alternatives would all have a $PM_{2.5}$ exceedance during Project operations, similar to the Project. This exceedance would be driven primarily by the large number of vehicle trips produced by Project operations. During construction, none of the construction sequence alternatives would exceed the BAAQMD cancer risk or non-cancer chronic risk thresholds. For construction plus operations, the Residential Uses Constructed First Alternative would be the only alternative that would exceed the BAAQMD cancer risk threshold. Table 5-10, below, ranks the four construction sequence alternatives for each type of air quality impact. For most air quality impacts, the impacts would be the same or similar for all alternatives. For construction mass emissions, cancer risk, hazard index, and $PM_{2.5}$ concentration, Table 5-10 shows the order of the alternatives, with the alternatives ranked from greatest impact (1st) to lowest impact (4th).

All other air quality impacts for this alternative, including consistency with the 2017 Clean Air Plan (LTS), operational mass emissions (SU/M), CO, asbestos, odors effects (LTS), and cumulative impacts (SU/M), would be the same as the Project.

Table 5-10. Comparison of Air Quality Impacts among Construction Sequence Alternatives

Air Quality Impact	Simultaneous Project Construction	No Overlapping Construction	Residential Uses Constructed First	Residential Uses Constructed Last
Conflict with or Obstruct Implementation of the Air Quality Plan	Similar for all	Similar for all	Similar for all	Similar for all
Construction Criteria Air Pollutant Emissions (greatest to smallest maximum daily emissions)	1st	4th	2nd	3rd
Operational Criteria Air Pollutant Emissions	Similar for all	Similar for all	Similar for all	Similar for all
Exposure of Sensitive Receptors to CO Hot-Spots	Similar for all	Similar for all	Similar for all	Similar for all
Cancer Risk (greatest to smallest risk)	3rd	2nd	1st	4th
Hazard Index (greatest to smallest index)	2nd	1st	3rd	4th
$PM_{2.5}$ Concentration (greatest to smallest concentration)	3rd (tie)	1st (tie)	1st (tie)	3rd (tie)
Exposure of Sensitive Receptors to Asbestos During Construction	Similar for all	Similar for all	Similar for all	Similar for all
Objectionable Odors	Similar for all	Similar for all	Similar for all	Similar for all

5.6.4.4 Greenhouse Gas Emissions

The construction sequence alternatives would result in the same general GHG impacts as the Project. The overall quantity of construction emissions would be similar to the Project, but the quantity occurring in each year would be different. For some sequences, there would be a much higher quantity of emissions in a shorter period (Simultaneous Project Construction Alternative), while other sequences would result in lower annual emissions over a longer period (No Overlapping Construction Alternative). The other sequences would result in annual emissions similar to the Project (Residential Uses Constructed First Alternative, Residential Uses Constructed Last Alternative). Regardless, the total quantity across the entire construction period would be approximately similar to the Project. There would be minor differences between the total emissions, because construction equipment would be more efficient in later years (i.e., operating equipment for 1 hour in later years would result in lower emissions than operating equipment for 1 hour in earlier years). This is the result of the construction equipment fleet becoming progressively lower-emitting due to older equipment turnover and more stringent regulations.

GHG emissions from construction were determined to be less than significant with Mitigation Measure GHG-1.1 for the Project, because implementation of construction-related measures, as recommended by BAAQMD, would reduce GHG emissions. This mitigation measure would also be required for the construction sequence alternatives. BAAQMD has noted that construction emissions represent a very small portion of a project's lifetime GHG emissions. Therefore, the impact would be less than significant with mitigation, similar to the Project. (LTS/M)

All other GHG impacts for this alternative, including operational emissions and consistency with the City's CAP, CARB's 2022 Scoping Plan, and Plan Bay Area 2050, would be the same as those of the Project and thus less than significant. (LTS)

5.6.4.5 Energy

Similar to the GHG impacts for the construction sequence alternatives, these alternatives would result in the same general energy impacts as the Project. The overall quantity of energy used in construction would be similar to the Project, but the quantity occurring in each year would be different. For some sequences, there would be a much higher quantity of energy usage in a shorter period (Simultaneous Project Construction Alternative), while other sequences would result in lower annual energy usage over a longer period (No Overlapping Construction Alternative). The other sequences would result in annual energy use similar to the Project (Residential Uses Constructed First Alternative, Residential Uses Constructed Last Alternative). There would be minor differences between the total energy use, because construction equipment would be more energy efficient in later years (i.e., operating equipment for 1 hour in later years would result in lower emissions than operating equipment for 1 hour in earlier years). This is the result of the construction equipment fleet becoming progressively lower-emitting/energy efficient due to older equipment turnover and more stringent regulations. For building operations, the same would be apply for household and office appliances because regulations would require more energy efficient models to be used in later years. Similar to the Project, design features implemented for the alternatives and Mitigation Measure GHG-1.1 would reduce the amount of fossil fuel consumed during construction as well as the energy intensiveness associated with building materials, including discarded construction and demolition waste. As with the Project, impacts would be less than significant with mitigation. (LTS/M)

During operations under the alternatives, compliance with CALGreen and LEED building requirements and implementation of the Project TDM program would result in transportation energy savings, similar to the Project. Therefore, energy impacts related to the construction sequence alternatives would not

result in the inefficient, wasteful, or unnecessary consumption of energy during operations, and impacts would be less than significant, similar to the Project. (LTS)

All other energy impacts for this alternative, including conflicts with State and local renewable energy and energy efficiency plans and cumulative impacts, would be the same as the Project and thus less than significant. (LTS)

5.6.4.6 Noise

The construction sequence alternatives would result in the same general noise impacts as the Project, except for variations in noise and vibration exposure from construction activities. For the Simultaneous Project Construction Alternative, the worst-case construction may occur more frequently in a shorter time period, because multiple areas of the site would be under construction at the same time. This would affect offsite uses, but this sequence would eliminate impacts on onsite uses, because no onsite users would be present during the construction period. For offsite uses, the worst-case noise and vibration levels would be similar to those of the Project; however, the occurrence of the worst-case scenario would be condensed into a shorter time period.

The No Overlapping Construction Alternative would result in similar construction noise and vibration impacts as the Project. Although construction in different areas would not occur simultaneously, residents in Area D would still be exposed to construction noise and vibration occurring at other areas. Construction noise and vibration exposure for onsite and offsite uses would be similar to the Project.

For the Residential Uses Constructed First Alternative, onsite residents would be exposed to the same worst-case noise and vibration levels as the Project, but the duration of construction they would be exposed to would be much longer. Residential uses would be exposed to construction noise and vibration from Areas C, B, and A. This would increase the duration of construction noise and vibration exposure for onsite residents but would not noticeably change exposure at offsite uses.

For the Residential Uses Constructed Last Alternative, onsite residents would not be exposed to worst-case noise or vibration, because construction at the entire site would be completed by the time residents are present. This would reduce construction noise and vibration exposure for onsite residents but would not noticeably change exposure at offsite uses.

For all construction sequence alternatives, Mitigation Measure NOI-1.1 would be required to reduce construction noise. Like the Project, the different sequences may still result in noise that would cause a substantial increase in ambient noise (i.e., greater than a 10 dB increase) or exceed the City Code noise limit for nighttime hours. For vibration impacts, pile driving would still be required and would cause substantial annoyance-related vibration impacts, even with Mitigation Measure NOI-3.1. As such, construction noise and construction vibration impacts would be significant and unavoidable with mitigation, similar to the Project. (SU/M)

All other noise impacts for the alternatives, including traffic, event, generator, truck loading, and aircraft noise impacts, would be the same as the Project and thus less than significant with mitigation. (LTS/M)

Cumulative noise impacts would also be the same under the alternatives as with the Project because the same types of noise sources would be present (e.g., HVAC fans, chillers, emergency generators) during operations, and the alternatives would not change Project operations. In addition, the building locations would be the same as with the Project; thus, the distance to onsite and offsite sensitive land uses would be the same as with the Project. Future residences at the Patrick Henry Specific Plan site would also be affected by operational noise. For cumulative construction noise and vibration, as noted above, worst-case

construction may occur more frequently under the Simultaneous Project Construction Alternative because multiple areas of the site would be under construction at the same time. For offsite uses, the worst-case noise and vibration levels would be similar to those of the Project; however, the occurrence of the worst-case scenario would be condensed into a shorter time period. In addition, future residences at the Patrick Henry Specific Plan site would also be affected by a substantial increase in noise and vibration from construction at the Project site. Thus, impacts would be cumulatively considerable, similar to the Project. (SU/M)

5.6.4.7 Cultural Resources

Similar to the Project, all Project characteristics and assumptions would remain the same under each of the construction sequence alternatives. Similar to the Project, archaeological deposits and human remains would not be encountered during operation of the construction sequence alternatives. In addition, the duration of construction for the different construction sequences would not change the significant impacts on cultural resources, including archeological resources and human remains. Because the below-grade parking would still be constructed, the area of disturbance would stay the same. Therefore, significant project-level and cumulative cultural resources-related impacts would occur under the construction sequence alternatives, and implementation of Mitigation Measures CUL-2.1, CUL-2.2, and CUL-2.3 would be required to reduce impacts to a less-than-significant level, similar to the Project. (LTS/M)

5.6.4.8 Biological Resources

Except for construction sequencing, all other Project characteristics and assumptions would remain the same under each construction sequence alternative as under the Project, including total development potential. Since the buildings would be constructed at the same building heights as under the Project, implementation of Mitigation Measure BIO-4.2 would be required for all construction sequence alternatives to reduce impacts due to bird collisions during operation to less than significant. In addition, it is not expected that the construction-related biological resource impacts would significantly differ from the Project under the construction sequence alternatives. The same amount of existing buildings would be demolished, which would require the implementation of Mitigation Measure BIO-1.1 to protect roosting bats during building removal. In addition, the same amount of trees would be removed and, therefore, Mitigation Measures BIO-4.1 and BIO-4.2 would be required to reduce impacts on nesting birds and roosting bats during tree removal. However, each construction sequence alternative would differ from the Project due to different construction durations. Longer construction periods would result in additional indirect impacts from increases in noise near nesting habitats. An increase in noise and human activity could reduce the quality of that habitat and ultimately change the behavior of nesting birds, resulting in nest abandonment. Construction activities have the potential to produce noise levels that would be higher than those that currently exist in the Project area. Since the No Overlapping Construction Alternative would result in a substantially longer construction period (17.95 years) than the Project, this alternative would very likely have greater impacts on nesting birds during construction. Regardless, implementation of Mitigation Measures BIO-4.1 and BIO-4.2 are expected to reduce the impacts to less than significant. Because the Simultaneous Project Construction Alternative, Residential Uses Constructed First Alternative, and Residential Uses Constructed Last Alternative would result in shorter construction periods, construction noise impacts on nesting birds are expected to be less than the Project, but would still require the implementation of mitigation measures. Therefore, as with the Project, construction and operational impacts on biological resources under the construction sequence alternatives would be less than significant with mitigation. (LTS/M)

5.6.4.9 Geology and Soils

Similar to the Project, all Project characteristics and assumptions would remain the same under each of the construction sequence alternatives. The duration of construction of the different construction sequences would not change the impacts on geology and soils or paleontological resources. Because the below-grade parking would still be constructed, impacts related to unstable soils and paleontological resources would still occur. Therefore, significant project-level and cumulative impacts would occur under the construction sequence alternatives, and implementation of Mitigation Measures GEO-3.1 and GEO-6.1 would be required to reduce construction and operational impacts to a less-than-significant level, similar to the Project. (LTS/M)

5.6.4.10 Hydrology and Water Quality

Similar to the Project, all Project characteristics and assumptions would remain the same under each of the construction sequence alternatives. The duration of construction of the different construction sequences would not change the impacts related to hydrology and water quality, except for dewatering, as discussed below. Therefore, significant project-level and cumulative impacts would occur under the construction sequence alternatives, and implementation of Mitigation Measures WQ-1.1, WQ-1.2, GEO-3.1, and HAZ-2.1 would be required to reduce construction and operational impacts to a less-than-significant level, similar to the Project. (LTS or LTS/M)

The construction sequence alternatives would include excavation dewatering. As discussed in Section 3.10 *Hydrology and Water Quality,* the estimated excavation dewatering flow rates would range between 0.7 and 4.2 gallons per minute (gpm) for each of the four construction areas. For the Simultaneous Project Construction Alternative, the dewatering flow rate was estimated to range between 1.6 to 8.0 gpm. Additional dewatering for depressurization purposes could be needed in the deeper sand lenses which could require additional dewatering flow rates estimated to range between 7.3 and 8.5 gpm for each of the four construction areas, and up to 16 gpm for the Simultaneous Project Construction Alternative. The duration of dewatering was estimated to range from 398 to 493 days for each of the four construction areas, and the duration of dewatering was estimated to be 486 days for the Simultaneous Project Construction Alternative.[19] The Simultaneous Project Construction Alternative would have a higher dewatering flow rate and therefore a higher annual dewatering volume (estimated to be up to approximately 39 acre-feet in the first year) compared to the Project (estimated to be up to approximately 16 acre-feet per year, on average); however, the Simultaneous Project Construction Alternative would decrease the duration of dewatering compared to the Project, and would reduce the estimated total dewatering volume compared to the Project from approximately 95 acre-feet to approximately 52 acre-feet. The No Overlapping Construction Alternative would spread out the dewatering activities over a longer period of time compared to the Project, which would result in a lower average annual dewatering volume compared to the Project; however, the total dewatering volume would remain similar to the Project or potentially increase compared to the Project due to having no overlap of dewatering activities. The Residential Uses Constructed First Alternative and Residential Uses Constructed Last Alternative would have more overlap in dewatering of the different construction areas compared to the Project, which would result in a higher average annual dewatering volume compared to the Project; however, the total dewatering volume would remain similar to the Project or potentially decrease compared to the Project due to the overlap of dewatering activities.

[19] Langan. 2022. *Groundwater Dewatering Flow Rates, 3005 Democracy Way, Santa Clara, California.* October 5.

Although the dewatering rates, durations, and total volumes would vary between the construction sequence alternatives and the Project, the construction sequence alternatives would still involve substantial dewatering, which could result in significant construction impacts related to groundwater quality, supply, and management similar to those of the Project and for the same reasons described for the Project. Implementation of Mitigation Measures GEO-3.1, HAZ-2.1, and WQ-1.1 would reduce these impacts to less than significant with mitigation for the same reasons described for the Project. (LTS/M)

5.6.4.11 Hazards and Hazardous Materials

Similar to the Project, all Project characteristics and assumptions would remain the same under each of the construction sequence alternatives. The duration of construction of the different construction sequences would not change the impacts related to hazards and hazardous materials. Therefore, project-level and cumulative impacts with respect to aviation hazards, emergency response and evacuation, and hazardous materials management would be less than significant. Project-level and cumulative construction and operational impacts related to the accidental release of hazardous materials would be less than significant with implementation of Mitigation Measure HAZ-2.1, similar to the Project. (LTS or LTS/M)

5.6.4.12 Population and Housing

Construction of all construction sequence alternatives would temporarily increase construction employment in the city. The number of construction workers per day would vary, depending on the construction phase of each alternative, with an average of approximately 400 workers onsite. The alternatives with shorter construction periods would very likely have more construction workers onsite at any given time than the alternatives with longer construction periods. For example, the Simultaneous Project Construction Alterative would be constructed over an accelerated 5.25 years, resulting in more construction workers at the Project site at each phase. However, the No Overlapping Construction Alternative would be constructed over 17.95 years. Because no construction phases would occur at the same time, fewer construction workers would be at the Project site at any given time.

Regardless of the different construction sequence alternatives, the demand for construction employment would very likely be met within the existing and future labor market in the city and the county. The size of the construction workforce would vary during the different stages of construction, but a substantial number of workers from outside the city or county would not be expected to relocate permanently. Therefore, the population within the city or county as a result of workers relocating is not anticipated to increase substantially during construction of any construction sequence alternative, resulting in a less-than-significant impact related to construction employment, similar to the Project.

Operation of the construction sequence alternatives would result in the same population and housing impacts as the Project. Therefore, all operational growth associated with the construction sequence alternatives would be significant and unavoidable. (SU)

5.6.4.13 Public Services and Recreation

Although the construction sequence alternatives would result in a varying amount of construction workers at the Project site at any given time, the demand for construction employment would very likely be met within the existing and future labor market in the city and the county. Therefore, it is unlikely that any of the construction sequence alternatives would put an additional strain on public services that would require expansion or construction of new fire service, police service, school, parks, or library facilities.

Similar to the Project, the construction sequence alternatives would result in less-than-significant impacts on public services. (LTS)

Operation of the construction sequence alternatives would generally have the same public service impacts as the Project. Under all sequences, the Project Sponsor would either construct parkland before residential uses are constructed or pay an in-lieu fee to the City until the parkland is constructed. This would satisfy the parkland requirement and avoid additional strain on parks and recreational facilities. Therefore, similar to the Project, operation of the construction sequence alternatives would result in less-than-significant impacts on public services. (LTS)

5.6.4.14 Tribal Cultural Resources

Similar to the Project, there would be no impacts on tribal cultural resources during operation of the construction sequences alternatives. In addition, similar to the Project, all Project characteristics and assumptions would remain the same under each of the construction sequence alternatives. The duration of construction of the different construction sequences would not change the significant impacts on tribal cultural resources. Because the below-grade parking would still be constructed, the area of disturbance would stay the same. Therefore, significant project-level and cumulative tribal cultural resources impacts would occur under the construction sequence alternatives, and implementation of Mitigation Measures CUL-2.1, CUL-2.2, and CUL-2.3 would be required to reduce impacts to a less-than-significant level, similar to the Project. (LTS/M)

5.6.4.15 Utilities and Service Systems

Similar to the Project, all Project characteristics and assumptions would remain the same under each of the construction sequence alternatives. The duration of construction under the different construction sequences would not change the impacts on utilities and service systems. Therefore, all utilities and service system impacts under these alternatives would be the same as under the Project. Implementation of Mitigation Measures WQ-3.1 and WQ-3.2 would be required. (LTS or LTS/M)

5.7 Comparison of Impacts

Table 5-11, below, presents a comparison of impacts between the Project and each alternative.

5.8 Environmentally Superior Alternative

PRC Section 21002 requires lead agencies to adopt feasible mitigation measures or feasible environmentally superior alternatives in order to substantially lessen or avoid otherwise significant adverse environmental effects, unless specific economic, social, or other conditions make such mitigation measures or alternatives infeasible. CEQA also requires an environmentally superior alternative to be identified among the alternatives analyzed. In general, the environmentally superior alternative is the project that avoids or substantially lessens some or all of the significant and unavoidable impacts of a proposed project (State CEQA Guidelines Section 15126.6).

On the basis of comparing the extent to which the alternatives would reduce or avoid the significant impacts of the Project, the No Project Alternative would be the environmentally superior alternative. However, if the No Project Alternative is the environmentally superior alternative, CEQA requires the EIR

to also specify which of the build alternatives would be environmentally superior (State CEQA Guidelines Section 15126.6[e][2]).

The Reduced Scale Alternative would have less gross square footage for development (3.44 million gsf) compared to the other alternatives as well as the Project, which would reduce the construction effort and overall construction-period impacts related to air quality, GHG emissions, noise, and energy. Compared to the Project, the Reduced Scale Alternative would result in 30 percent fewer residential uses (approximately 2,709 new residents in 1,260 units) and 30 percent fewer employees (approximately 8,796 net new employees at the Project site but 1,615 fewer employees compared to the assumptions in the General Plan). Therefore, operational impacts related to residents and employees, such as the demand related to public services and utilities, the jobs/housing imbalance, and population growth, would also be reduced. Although gross square footage would be less, construction-period disturbance impacts associated with cultural resources, tribal cultural resources, erosion, and water quality would most likely be similar to those of the other alternatives and the Project. The Reduced Scale Alternative would result in fewer daily trips compared to the other alternatives and the Project and thus lower overall operational air quality, GHG, and traffic noise impacts. There are no resource areas for which the Reduced Scale Alternative would have greater impacts than the other alternatives or the Project. However, the Reduced Scale Alternative would generally result in the same impact conclusions (i.e., less than significant, less than significant with mitigation, significant and unavoidable) as the Project. Most notably, although the significant and unavoidable impacts of the Project would be slightly less under this alternative, none of these impacts would be reduced to less than significant under the Reduced Scale Alternative. Similar to the Project, this alternative would result in conflicts with adopted City land use plans and policies regarding the jobs/housing ratio.

Similarly, the Reduced Scale Alternative would reduce air quality impacts related to operational criteria air pollutant emissions, exposure of sensitive receptors to CO hot-spots, and construction and operational TAC emissions compared to the Project. However, the impact conclusions of the Reduced Scale Alternative would remain the same as the Project, significant and unavoidable with mitigation for operational criteria air pollutant emissions and construction and operational TAC emissions, and less than significant for exposure of sensitive receptors to CO hot-spots.

The Reduced Scale Alternative would meet the majority of the Project objectives but to a lesser extent than the Project because of a reduction in floor area. The Reduced Scale Alternative would reduce the proposed development at the Project site by 30 percent but would still include a variety of uses, including residential, office/R&D, neighborhood retail, childcare, and community uses. Therefore, similar to the Project, the Reduced Scale Alternative would meet the primary objective of supporting the City's planning efforts by converting an underutilized single-use site to a high-intensity mixed-use development with a range of building types. Because mixed-use buildings would be constructed, the objective of providing a mix of residential, commercial, retail, and community uses would be met, although to a lesser extent than under the Project. The Reduced Scale Alternative would also provide housing. Therefore, the city's housing supply would be broadened, and the City's Affordable Housing Ordinance and Inclusionary Zoning requirements would be met. Therefore, the Reduced Scale Alternative would meet the basic Project objectives but to a lesser extent. Thus, because it would have fewer construction and operational impacts than the other alternatives, the Reduced Scale Alternative is the environmentally superior alternative.

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Table 5-11. Comparison of Impacts among Project Alternatives

Environmental Issue	Project	No Project Alternative	Code Compliant Alternative	Reduced Scale Alternative	Reduced Office/ Increased Housing Alternative	Simultaneous Project Construction Alternative	No Overlapping Construction Alternative	Residential Uses Constructed First Alternative	Residential Uses Constructed Last Alternative
Land Use									
Physical division of an established community	NI	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)
Conflicts with adopted City land use plans and policies regarding the job/housing ratio	NI	Similar to the Project (NI)	Greater than the Project (SU)	Similar to the Project (NI)	Similar to the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)
Conflicts with airport land use plan	LTS	Less than the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)
Conflicts with adopted City land use plans and policies other than jobs/housing balance and airport land use plan	LTS	Less than the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)
Cumulative land use impacts	LTS	Less than the Project (LTS)	Greater than the Project (SU)	Similar to the Project (LTS)	Similar to the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)
Transportation									
Adopted plans, ordinances, and policies regarding roadways	LTS/M	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Adopted plans, ordinances, and policies regarding transit	LTS/M	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Adopted plans, ordinances and policies regarding bicycle facilities	LTS/M	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Adopted plans, ordinances and policies regarding pedestrian facilities	LTS/M	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Vehicle miles traveled	LTS	Less than the Project (NI)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)
Hazards due to design features or incompatible uses	LTS/M	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Emergency access	LTS/M	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Cumulative adopted plans, ordinances, and policies addressing the circulation system	LTS	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Cumulative vehicle miles traveled	LTS	Less than the Project (NI)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Cumulative hazards due to design features or incompatible uses	LTS	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Cumulative emergency access	LTS	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Air Quality									
Conflict with or Obstruct Implementation of the Air Quality Plan	LTS	Less than the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)
Construction Criteria Air Pollutant Emissions	LTS/M	Less than the Project (LTS)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Greater than the Project (SU/M)	Less than the Project (LTS/M)	Greater than the Project (SU/M)	Greater than the Project (SU/M)
Operational Criteria Air Pollutant Emissions	SU/M	Less than the Project (LTS)	Greater than the Project (SU/M)	Less than the Project (SU/M)	Less than the Project (SU/M)	Same as the Project (SU/M)	Same as the Project (SU/M)	Same as the Project (SU/M)	Same as the Project (SU/M)

Environmental Issue	Project	No Project Alternative	Code Compliant Alternative	Reduced Scale Alternative	Reduced Office/ Increased Housing Alternative	Simultaneous Project Construction Alternative	No Overlapping Construction Alternative	Residential Uses Constructed First Alternative	Residential Uses Constructed Last Alternative
Exposure of Sensitive Receptors to CO Hot-Spots	LTS	Less than the Project (LTS)	Greater than the Project (LTS)	Less than the Project (LTS)	Less than the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)
Construction and Operational TAC Emissions	SU/M	Less than the Project (LTS)	Similar to the Project (SU/M)	Less than the Project (SU/M)	Less than the Project (SU/M)	Less than the Project (SU/M)	Similar to the Project (SU/M)	Less than the Project (SU/M)	Less than the Project (SU/M)
Exposure of Sensitive Receptors to Asbestos During Construction	LTS	Less than the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)
Objectionable Odors	LTS	Less than the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)
Cumulative Conflict with or Obstruct Implementation of the Air Quality Plan	LTS	Less than the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)
Cumulative Criteria Pollutants	SU/M	Less than the Project (LTS)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)
Cumulative Health Risks	SU/M	Less than the Project (LTS)	Less than the Project (SU/M)	Less than the Project (SU/M)	Less than the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)
Cumulative Odors	LTS	Less than the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)
Greenhouse Gas Emissions									
Generate GHG emissions during construction and operation	LTS/M	Less than the Project (LTS)	Similar to the Project (LTS/M)	Less than the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Conflicts with applicable plans and policies	LTS	Less than the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Energy									
Wasteful, inefficient, or unnecessary consumption of energy resources	LTS/M	Less than the Project (LTS)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Conflict with energy plan	LTS	Less than the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Cumulative energy impacts	LTS	Less than the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Noise									
Construction noise	SU/M	Less than the Project (LTS)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Greater than the Project (SU/M)	Similar to the Project (SU/M)
Traffic noise	LTS	Less than the Project (LTS)	Similar to the Project (LTS)	Less than the Project (LTS)	Less than the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Operational noise	LTS/M	Less than the Project (LTS)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Ground-borne vibration and noise levels	SU/M	Less than the Project (LTS)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)
Aircraft noise	LTS	Less than the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Cumulative construction noise	SU/M	Less than the Project (LTS)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Greater than the Project (SU/M)	Similar to the Project (SU/M)
Cumulative operational noise	LTS/M	Less than the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Cumulative vibration effects	SU/M	Less than the Project (LTS)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)	Similar to the Project (SU/M)

Environmental Issue	Project	No Project Alternative	Code Compliant Alternative	Reduced Scale Alternative	Reduced Office/ Increased Housing Alternative	Simultaneous Project Construction Alternative	No Overlapping Construction Alternative	Residential Uses Constructed First Alternative	Residential Uses Constructed Last Alternative
Cultural Resources									
Built resources	NI	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)
Archaeological resources	LTS/M	Less than the Project (NI)	Less than the Project (LTS/M)	Same as the Project (LTS/M)	Same as the Project (LTS/M)	Same as the Project (LTS/M)	Same as the Project (LTS/M)	Same as the Project (LTS/M)	Same as the Project (LTS/M)
Human remains	LTS/M	Less than the Project (NI)	Less than the Project (LTS/M)	Same as the Project (LTS/M)	Same as the Project (LTS/M)	Same as the Project (LTS/M)	Same as the Project (LTS/M)	Same as the Project (LTS/M)	Same as the Project (LTS/M)
Cumulative impacts on archaeological resources and human remains	LTS/M	Less than the Project (NI)	Less than the Project (LTS/M)	Same as the Project (LTS/M)	Same as the Project (LTS/M)	Same as the Project (LTS/M)	Same as the Project (LTS/M)	Same as the Project (LTS/M)	Same as the Project (LTS/M)
Biological Resources									
Loss or damage to special-status plants	NI	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)
Loss or damage to special-status fish	NI	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)
Loss or degradation of riparian habitat or sensitive natural communities	NI	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)
Interfere with movement of native resident or migratory fish species	NI	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)
Interfere with wildlife corridors	NI	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)
Conflict with a habitat conservation plan or natural community conservation plan	NI	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)
State or federally protected wetlands	LTS	Less than the Project (NI)	Less than the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Impede use of native wildlife nursery sites or interfere with movement of native migratory wildlife species.	LTS/M	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Special-status species—nesting birds and bats	LTS/M	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Conflicts with local policies or ordinances protecting biological resources	LTS	Less than the Project (NI)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Cumulative biological resources impacts	LTS/M	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Geology and Soils									
Septic tanks and alternative wastewater systems	NI	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)
Landslides	NI	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)
Seismicity	LTS	Less than the Project (NI)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Erosion or loss of topsoil	LTS	Less than the Project (NI)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Soil instability	LTS/M	Less than the Project (NI)	Less than the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Expansive soil	LTS	Less than the Project (NI)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)

Environmental Issue	Project	No Project Alternative	Code Compliant Alternative	Reduced Scale Alternative	Reduced Office/ Increased Housing Alternative	Simultaneous Project Construction Alternative	No Overlapping Construction Alternative	Residential Uses Constructed First Alternative	Residential Uses Constructed Last Alternative
Paleontological resources	LTS/M	Less than the Project (NI)	Less than the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Cumulative soil instability impacts	LTS/M	Less than the Project (NI)	Similar to the Project (LTS)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Cumulative paleontological resources impacts	LTS/M	Less than the Project (NI)	Less than the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Hydrology and Water Quality									
Water quality	LTS/M	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Groundwater supplies	LTS/M	Less than the Project (NI)	Less than the Project (LTS/M)	Less than the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Drainage patterns	LTS/M	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Release of pollutants due to inundation	LTS/M	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Conflict with a water quality control plan or sustainable groundwater management plan	LTS/M	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Cumulative water quality impacts	LTS/M	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Cumulative groundwater supply impacts	LTS/M	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Cumulative drainage pattern impacts	LTS/M	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Cumulative release of pollutants due to inundation	LTS/M	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Cumulative conflicts with a water quality control plan or sustainable groundwater management plan	LTS/M	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Hazards and Hazardous Materials									
Hazardous emissions within 0.25 mile of schools	NI	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)
Government code section 65962.5	NI	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)
Wildfire	NI	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)
Routine transport, use, or disposal of hazardous materials	LTS	Less than the Project (NI)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Accidental releases of hazardous materials	LTS/M	Less than the Project (NI)	Less than the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Aviation hazards	LTS	Less than the Project (NI)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Emergency response and evacuation	LTS	Less than the Project (NI)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Cumulative routine transport, use, or disposal of hazardous materials	LTS	Less than the Project (NI)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)

Environmental Issue	Project	No Project Alternative	Code Compliant Alternative	Reduced Scale Alternative	Reduced Office/ Increased Housing Alternative	Simultaneous Project Construction Alternative	No Overlapping Construction Alternative	Residential Uses Constructed First Alternative	Residential Uses Constructed Last Alternative
Cumulative accidental releases of hazardous materials	LTS/M	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Cumulative aviation hazards.	LTS	Less than the Project (NI)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Cumulative emergency response and evacuation	LTS	Less than the Project (NI)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Population and Housing									
Displacement of existing people or housing	NI	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)	Same as the Project (NI)
Population growth	LTS	Less than the Project (NI)	Greater than the Project (SU)	Less than the Project (LTS)	Less than the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)
Cumulative population and housing impacts	LTS	Less than the Project (NI)	Greater than the Project (SU)	Less than the Project (LTS)	Less than the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)	Same as the Project (LTS)
Public Services and Recreation									
Fire services and facilities	LTS	Less than the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Police services and facilities	LTS	Less than the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
School facilities	LTS	Less than the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Parks and recreation facilities	LTS	Less than the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Library facilities	LTS	Less than the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Cumulative public service impacts	LTS	Less than the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Tribal cultural resources	LTS/M	Less than the Project (NI)	Less than the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Cumulative impacts on tribal cultural resources	LTS/M	Less than the Project (NI)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Utilities and Service Systems									
Utility Relocation, Construction, or Expansion	LTS/M	Less than the Project (LTS)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)	Similar to the Project (LTS/M)
Water Supply	LTS	Less than the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Wastewater Treatment Capacity	LTS	Less than the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Solid Waste Capacity	LTS	Less than the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)
Cumulative Impacts	LTS	Less than the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)	Similar to the Project (LTS)

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Chapter 6
Report Preparers

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- Carol Shariat—Principal Transportation Planner
- Alexander Abbe—Assistant City Attorney
- David Snow—Outside Counsel for City of Santa Clara
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- Transportation and Traffic—Hexagon
- Air Quality— Corey Matsui, Pierre Glaize, Kelsey Hartfelder
- Greenhouse Gas Emissions— Corey Matsui, Pierre Glaize, Kelsey Hartfelder
- Noise—Corey Matsui, Noah Schumaker
- Cultural Resources— Lora Holland, Jenifer Rogers
- Biological Resources—Ross Wilming, John Howe, Shannon Henke
- Geology and Soils—BASELINE, Diana Roberts, Patrick Maley
- Hydrology and Water Quality—BASELINE
- Hazards and Hazardous Materials—BASELINE
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